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An analysis of research hotspots and trends in fashion design based on Chinese cultural elements

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Abstract. Chinese culture, rooted in thousands of years of historical development, demonstrated profound philosophical depth and aesthetic vitality. Its integration into fashion design attracted growing academic attention. The purpose of this study was to systematically analyse the research progress, core themes, and evolving trends in this field. A total of 1,214 academic articles indexed in the China National Knowledge Infrastructure database were examined using CiteSpace software. Bibliometric and visualisation methods were applied to investigate annual publication volume, author and institutional collaboration networks, highly cited literature, keyword co-occurrence, clustering, burst detection, and timeline distribution. It was found that research output increased steadily and peaked in 2024. Collaborative relationships among researchers and institutions remained fragmented, with academic influence concentrated among a small number of prolific contributors and key universities. Highly cited studies primarily addressed the contemporary transformation of traditional motifs, cultural innovation, and design methodology. Keyword clustering identified “New Chinese Style”, “cultural innovation”, “traditional craftsmanship”, and “design expression” as dominant themes. Timeline and burst analyses revealed a trend shift from heritage-oriented exploration to interdisciplinary integration, digital empowerment, and market-oriented innovation. This study offered theoretical insights and methodological references for scholars, educators, and designers engaged in the sustainable and creative application of Chinese cultural elements in fashion. It also contributed to the global dissemination and contemporary reinterpretation of Chinese culture within fashion discourse

Keywords: CiteSpace; visualisation analysis; Chinese-inspired design; cultural innovation; design innovation

INTRODUCTION

Chinese cultural elements referred to symbols, concepts, and artefacts that originated from traditional Chinese culture or have emerged in the context of contemporary Chinese society, bearing a strong association with Chinese identity. These elements were widely recognised by the Chinese public, and through them, consumers were able to associate a product or design specifically with Chinese culture, rather than with other

ethnic or cultural traditions (Yuan, 2024). In the field of fashion design involving Chinese cultural elements, numerous scholars focused on the cultural symbolism and design adaptability embedded in traditional decorative patterns, exploring how these motifs could be innovatively integrated into contemporary fashion through geometric reconstruction, digital printing, and textile craftsmanship. J. Song *et al.* (2024) highlighted

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that cloud motifs, as widely used traditional patterns, demonstrated significant innovation potential in areas such as fabric reconstruction, digital technologies, and embroidery techniques. T. Dong (2024) proposed three strategies for incorporating blue-and-white porcelain art into fashion design: direct pattern application, partial decorative accents, and modular sequential arrangement, aiming to achieve an organic integration between traditional art and contemporary expression.

The redesign of traditional garment structures and the incorporation of regionally distinctive craftsmanship also gained scholarly attention. J. Song *et al.* (2023) examined the fastening system of Ming Dynasty garments, classifying them by type, position, and combination method, and suggested that applying these structural techniques in modern design could enrich garment layering and enhance ergonomic adaptability. C. Liu & Q. Liu (2021) explored the innovative application of the Zhongshan suit in menswear for the elderly, proposing the retention of classic collar shapes, plackets, and pocket structures while introducing functional details such as detachable cuffs, reflective strips, and portable medicine pockets to improve practicality and market relevance. Y.P. Lin *et al.* (2024) analysed the use of Gan embroidery techniques in wool garments, emphasising how stitches such as flat, long-short, and random stitch embroidery could enhance texture and ornamentation on garment details like collars, cuffs, and plackets. H.W. Tian (2024) investigated the cultural value of traditional embroidered dudou undergarments and their redesign potential in contemporary children's and women's fashion, suggesting that patchwork and embroidery techniques could provide unique inspiration for modern clothing.

Emerging technological methods also played a central role in the reinterpretation of traditional clothing elements. Q. Wu *et al.* (2021) proposed an AI-based fashion design method using generative adversarial networks (GANs) and style transfer algorithms, demonstrating how artificial intelligence could construct contemporary visual aesthetics while preserving traditional cultural elements. B. Zhang *et al.* (2024) studied the application of Chinese landscape painting colours in modern textile design, using Wang Ximeng's "A Thousand Li of Rivers and Mountains" from the Song Dynasty as an example. They applied an improved K-means algorithm to extract dominant colour palettes and developed garment design practices through colour network modelling, confirming that traditional colour systems could provide both theoretical and practical support for contemporary fashion aesthetics. Simultaneously, bibliometric analysis and knowledge mapping became important tools in this field. W. Wang & B. Chen (2024) used CiteSpace to compare Chinese and international research, highlighting a Chinese focus on design innovation and an international emphasis on cultural strategy and diversity.

While these studies have provided valuable insights in terms of methods and perspectives, there is still a lack of comprehensive bibliometric analysis and knowledge mapping of the overall landscape of Chinese cultural elements in fashion design. This article aimed to identify research trends, high-frequency keywords, key thematic clusters, and knowledge domains, thereby contributing to a more integrated academic understanding of the field and offering theoretical support for future research directions and design innovation.

■ MATERIALS AND METHODS

To ensure the comprehensiveness and accuracy of the data, this study utilised both Chinese and English academic databases as sources for bibliometric analysis. The core search terms included "Chinese culture", "Chinese elements", and "fashion design" with the search period ending on February 6, 2024. However, the results indicated that databases such as Web of Science (WoS) and Scopus yielded a limited number of records, with relatively few highly relevant publications, rendering them insufficient to support large-scale visual analysis using CiteSpace software. Therefore, the primary data source for this study was the China National Knowledge Infrastructure (CNKI). The search was restricted to documents categorised as "research articles", and non-academic materials such as prefaces, book reviews, and design portfolios were excluded. After this screening process, a total of 1,214 valid Chinese-language academic papers were retained for analysis. CNKI is a key national informatisation project aimed at facilitating the sharing of knowledge and information resources across society. It hosts the world's largest continuously updated full-text database of Chinese academic journals, and China's most comprehensive and dynamic full-text database of statistical yearbooks (Wang & Tang, 2022).

The current study employed CiteSpace technology to analyse all the collected literature data. CiteSpace is a Java-based application developed by Professor Chaomei Chen at Drexel University, a leading scholar in the field of information visualisation (Zou *et al.*, 2022). It has been widely used for the visual analysis of academic literature and co-citation networks (Chen, 2004). CiteSpace supports three core analytical functions: identifying the nature of research frontiers, labelling and clustering disciplinary fields, and detecting research trends and sudden changes based on network data. In this study, CiteSpace 6.2.R3 was used to process the selected literature sample by conducting keyword-based analysis. The parameters were set as follows: the time span was set from 2015 to 2025, with one year per slice. The node type was set to "Keyword", the g-index was used as the thresholding method, Cosine was selected as the algorithm for link strength, and Pathfinder was applied for network pruning. Based on these settings, a total of 1,214 valid Chinese-language articles were analysed to

visualise the knowledge structure related to the application of Chinese cultural elements in fashion design. The analysis aimed to extract key knowledge nodes, map the evolutionary trajectory of research themes, and outline the knowledge production patterns within the field.

The study applied bibliometric and visualisation approaches using the CiteSpace tool for a comprehensive analysis of scientific publications. The analysis was carried out in the following areas:

1. Investigation of the overall development of scientific research in this area: quantitative and temporal dynamics of publications, spatial (regional) characteristics of research dissemination, identification of leading authors, scientific institutions, and the most cited papers. The structure of academic interaction between the main research centres was also analysed.

2. Identification of current scientific trends: an analysis of keywords, their frequency, coherence, clustering, and time periods of activity (burst detection) was carried out, which allowed identifying the main knowledge clusters in the subject.

3. Study of the main trends in the development of fashion design with the inclusion of Chinese cultural elements: the dynamics of thematic changes and transformations of approaches were analysed, which allowed characterising the evolution of scientific discourse in this area.

Thus, the main trends in the development of research, leading authors, institutions and regions of

activity were identified. The analysis of keywords and clusters helped to identify relevant research areas and trace the evolution of scientific discourse and changes in approaches in this area.

RESULTS AND DISCUSSION

Annual publication volume and author collaboration network analysis. The number of publications per year served as an important indicator for evaluating the development of scientific research and, to a certain extent, reflected the growth of knowledge within a given field (Xiao & Sun, 2023). Figure 1 illustrated the annual publication volume related to the application of Chinese cultural elements in fashion design, as indexed by CNKI from 2015 to 2025. Overall, the number of publications in this field showed a rising trend, with relatively stable year-on-year growth. From 2015 to 2018, publication volume increased gradually. In 2015, only 42 articles were published, followed by steady growth, reaching 71 articles in 2017. However, a slight decline occurred in 2018. Beginning in 2019, publication numbers began to increase significantly, peaking at 134 articles in 2021, with an average annual growth rate exceeding 20%. Between 2022 and 2024, the field entered a phase of rapid expansion. The number of publications rose from 159 in 2022 to 211 in 2023, reaching a peak of 289 articles in 2024 – an increase of nearly sevenfold compared to 2015. The sharp drop observed in 2025 was due to the cutoff date for data collection.

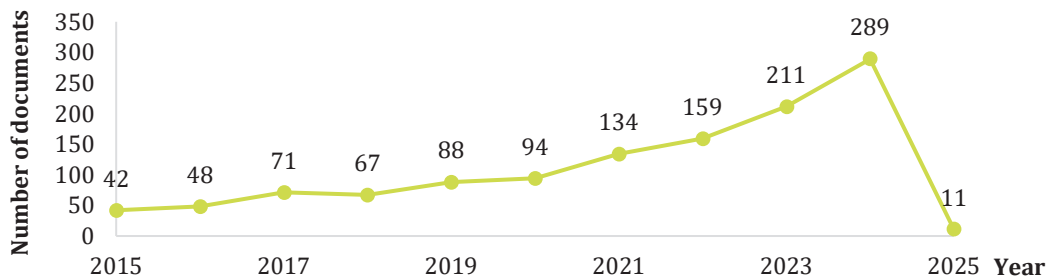


Figure 1. Annual publications on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: created by the authors based on data from the CNKI database (2015-2025)

Prolific authors and their collaborative teams served as the core driving force behind the development of publications in a given discipline (Wang, 2017). By using CiteSpace and setting the node type to “author”, an author collaboration network map was generated to visualise research activity in the field of fashion design based on Chinese cultural elements (Fig. 2).

In the network, larger nodes represented authors with a higher number of publications, while thicker connecting lines indicated stronger collaborative relationships between authors. Overall, a total of 332 researchers have participated in this field, indicating a relatively large research community. However, the distribution remained fragmented. Specifically, only 13

authors have published more than three articles in this field. Among them, two authors have published four papers, and only one author has published as many as seven, suggesting that the core research force was relatively small and that academic influence was concentrated within a limited group of highly productive authors. Meanwhile, 239 authors have published only one article, accounting for 72% of the total author population. The network diagram showed few and scattered links between authors, and the node density is low. Notably, close collaborative relationships existed only among a few individuals, such as Huang Yongli, Chen Xiaodong, and Huang Chen. This indicated that the overall collaboration in this field was still weak, with most

authors working independently or maintaining minimal partnerships. Therefore, the frequency and

strength of scholarly collaboration remained to be enhanced in future research development.

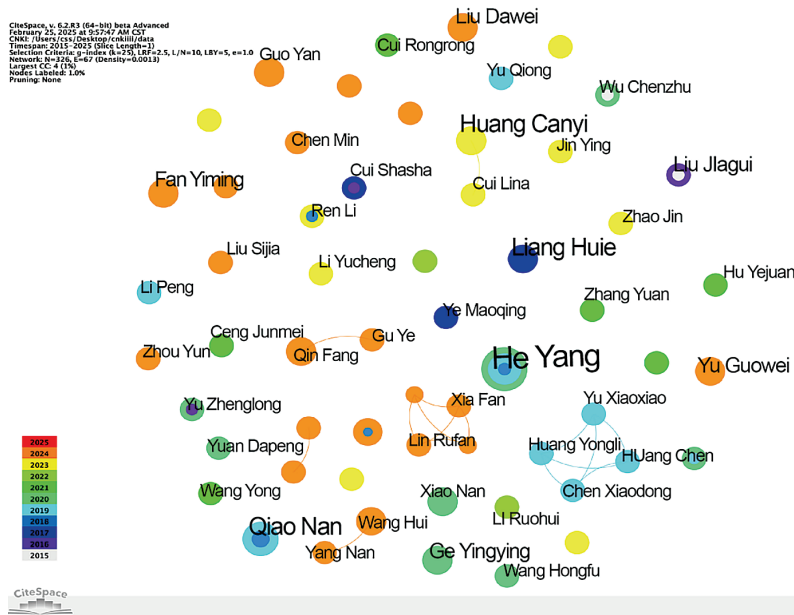


Figure 2. Author collaboration network on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)

Institutional collaboration network analysis.

By using CiteSpace to analyse the effective literature sample, an institutional collaboration network map was generated, as shown in Figure 3, illustrating the distribution of research institutions involved in fashion design based on Chinese cultural elements. This

field was primarily supported by textile and apparel universities, art academies, and comprehensive science, and engineering institutions, exhibiting a pattern characterised by a few core institutions taking the lead, while overall collaborative links remained relatively weak.

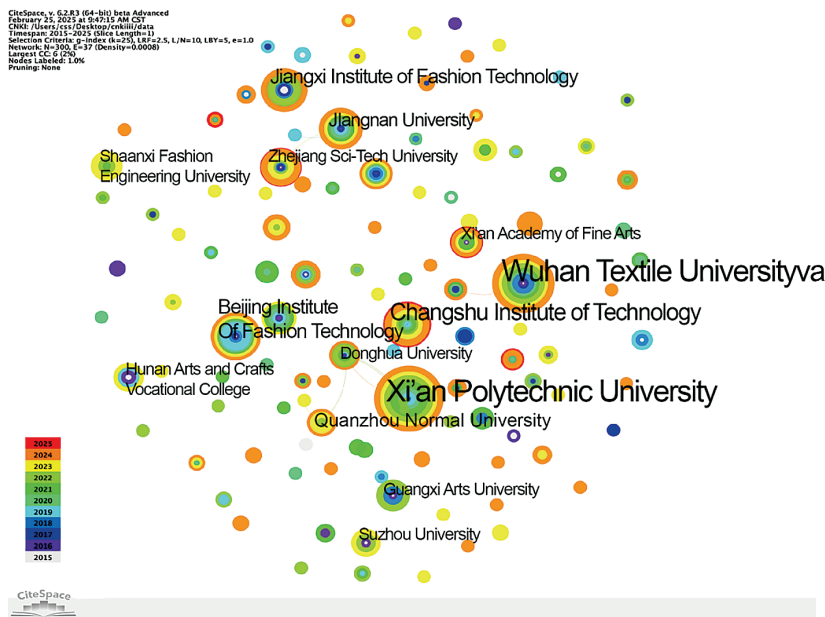


Figure 3. Institutional collaboration network on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)

Wuhan Textile University, Xi'an Polytechnic University, and Beijing Institute of Fashion Technology occupied central positions within the collaboration network, as indicated by their relatively large node sizes, reflecting high publication outputs. This prominence was largely attributed to the long-term disciplinary accumulation and academic strengths these institutions possessed in textile science, fashion engineering, and design studies. For instance, Wuhan Textile University, a leading institution in China's textile and fashion sector, had a strong research foundation in textile materials, intelligent manufacturing, and apparel technology innovation (ShanghaiRanking, 2024a). Xi'an Polytechnic University focused on fashion design and engineering, with considerable research output in areas such as traditional costume structures, craftsmanship optimisation, and intelligent fashion design (ShanghaiRanking, 2024b). Beijing Institute of Fashion Technology was particularly renowned for its expertise in fashion design and traditional culture studies, maintaining a long-standing focus on ethnic costume research, New Chinese Style innovation, and cultural and creative industries development (Wan & Li, 2024).

Other institutions such as Changshu Institute of Technology, Zhejiang Sci-Tech University, and Jiangnan

University have also demonstrated notable publication output, indicating a meaningful contribution to the field. In terms of collaboration, institutions like Xi'an Polytechnic University, Donghua University, and Quanzhou Normal University showed interconnectedness, suggesting the establishment of modest institutional partnerships. However, most institutional relationships remained loosely connected, with a dominance of independent research or small-scale collaboration. Overall, higher education institutions continue to play a dominant role in this field, while interdisciplinary and cross-regional collaboration remains limited. A stable, nationwide research network has yet to take shape. In the future, this field would benefit from enhancing interdisciplinary integration, regional synergy, and international cooperation, thereby expanding both the depth and breadth of research and boosting its global impact.

Analysis of highly cited literature. Highly cited literature typically held substantial academic influence in a given research field and often reflected research hotspots and developmental trends. By analysing the ten most cited articles (Table 1) published between 2015 and 2025 on the application of Chinese cultural elements in fashion design, two primary research directions emerged.

Table 1. Highly cited literature on Chinese cultural elements in fashion design

Rank	Author	Title	Citation frequency	Year	Journal
1	Yang Shuo & Liu Weidong	The rise of "National fashion" from the perspective of fashion design	59	2020	Hunan Packaging
2	Yang Bei & Zhong Wei & Zhang Wanyu	Design and innovation practice of Liangshan Yi embroidery pattern based on semiotics	51	2020	Journal of Silk
3	Wang Weijin & Li Yanxiao	Esthetics principles of Chinese paper-cutting art and its application in fashion design	47	2016	Journal of Silk
4	Chen Xiang & Liu Yue	Culture factor extraction and design application of shadow play based on satisfaction analysis	43	2019	Journal of Graphics
5	Li Xizhen & Sun Zhiqin	Research on the knowledge map and visualisation of fashion design field in China based on CiteSpace	42	2020	Journal of Silk
6	Deng Yan	Application of Chinese traditional auspicious patterns in modern design	35	2019	Packaging Engineering
7	Wang Qiao & Li Zheng	Nanjing brocade pattern and its application in "new Chinese" clothing design	32	2019	Journal of Silk
8	Jiang Liping	Application of Chinese traditional pattern in modern costume design	30	2019	Chemical Fiber & Textile Technology
9	Zu Yidan & Shen Kaixuan & Wang Jin	Study on economical technology of ancient chinese costume	29	2015	Journal of Silk
10	Lei Yu	Application of national traditional culture in art design	27	2020	Packaging Engineering

Note: data updated as of January 2025

Source: created by the authors based on data from the CNKI database (2015-2025)

The first area centred on the contemporary transformation of traditional cultural elements with a particular focus on how traditional Chinese culture was both inherited and innovatively reinterpreted in modern fashion design. Y. Lei (2020) integrated ethnic traditional culture with art design, thoroughly exploring ethnic elements within Chinese traditional culture and their application in fashion design practices. Y. Deng (2019) analysed the characteristics of traditional auspicious patterns, exploring their integration with modern design in terms of form, meaning, and spirit, and clarified the paths for their development. L.P. Jiang (2019) emphasised an in-depth understanding of the cultural connotations embedded in traditional patterns, arguing that the integration of Chinese traditional motifs with Western design can result in unique visual styles.

The second research area pertained to cultural innovation and design methodologies, where scholars paid greater attention to the innovative expression of cultural symbols within contemporary design systems, and the role of data analysis and intelligent technology in advancing fashion design research. S. Yang &

W.D. Liu (2020) explored the Guochao phenomenon (a Chinese cultural fashion trend) through Chinese fashion brand case studies, arguing that Guochao culture empowered domestic fashion branding. X. Chen & Y. Liu (2019) based on satisfaction analysis methods, examined the extraction and design application of cultural factors of shadow theatre, contending that the modernisation of traditional culture had to balance aesthetic values and market acceptance.

Co-occurrence analysis of keywords. Keywords provided a concise and high-level summary of a research topic. Analysis of high-frequency keywords allowed for the identification of research hotspots, developmental trends, and interrelationships among different research themes. Based on the valid corpus, CiteSpace was employed to analyse high-frequency keywords related to the application of Chinese cultural elements in fashion design. The resulting keyword co-occurrence network included 418 nodes and 664 links, with a node density of 0.0051 and a modularity (Q) value of 0.8678, indicating a well-structured clustering outcome. The keyword co-occurrence knowledge map covering the period from 2015 to 2025 is shown in Figure 4.

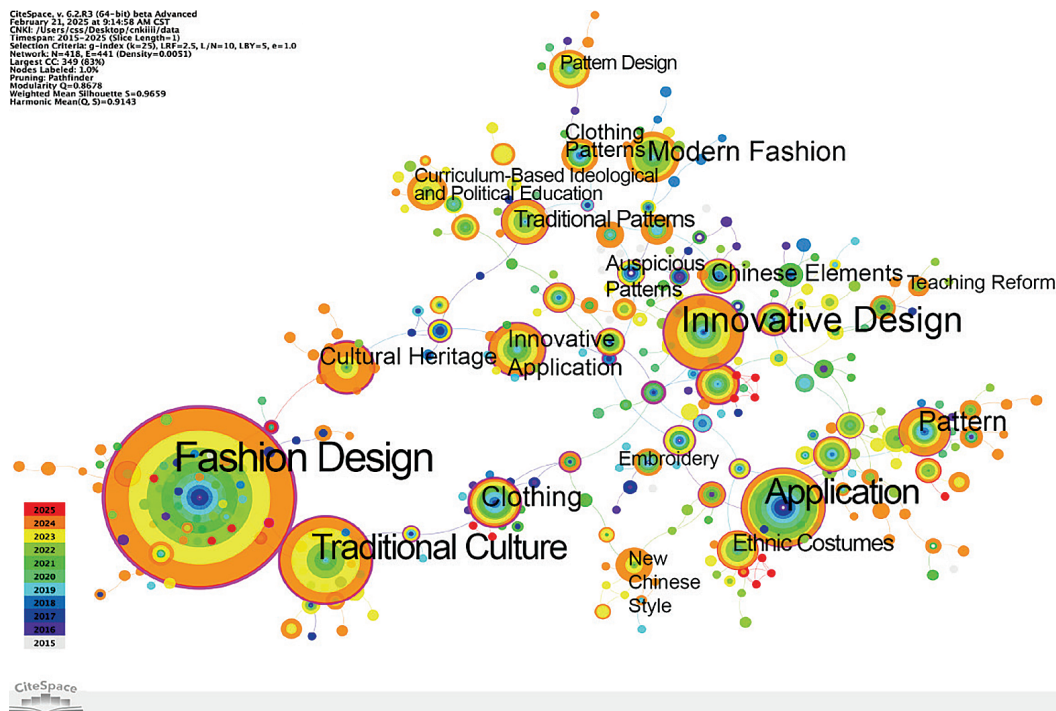


Figure 4. Keyword co-occurrence map on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)

In this map, nodes were visualised using the Tree Ring History model. The size of the ring reflected the frequency of the keyword – larger rings indicated higher frequencies. The colour of the rings represented the time period during which the keyword was active, with colours progressing from the centre outward to

indicate the temporal span from earlier to more recent publications. The thickness of each coloured segment was proportional to the keyword’s frequency within that corresponding time slice. According to the keyword co-occurrence network, “fashion design” emerged as the central research theme in this domain, occupying

the largest node. It was closely linked to several other high-frequency keywords, including “traditional culture”, “cultural inheritance”, and “innovative design”, suggesting that recent studies focused on the innovative application of traditional cultural elements in contemporary apparel design. In addition, “application”, “traditional motifs”, and “ethnic costumes” also occupied prominent positions, reflecting sustained scholarly interest in the application of cultural elements – such as traditional patterns, embroidery techniques, and colour systems – in fashion design.

Cluster analysis of keywords. Keyword clustering referred to a network of interconnected keywords with similar research themes within a particular field. The thematic content of each cluster was typically labelled based on high-frequency title terms extracted from the articles within that group (Guan & Guo, 2021). The clustering analysis of keywords related to the application of Chinese cultural elements in fashion design was conducted using CiteSpace, resulting in the generation of a keyword clustering map (Fig. 5) and corresponding cluster information (Table 2).

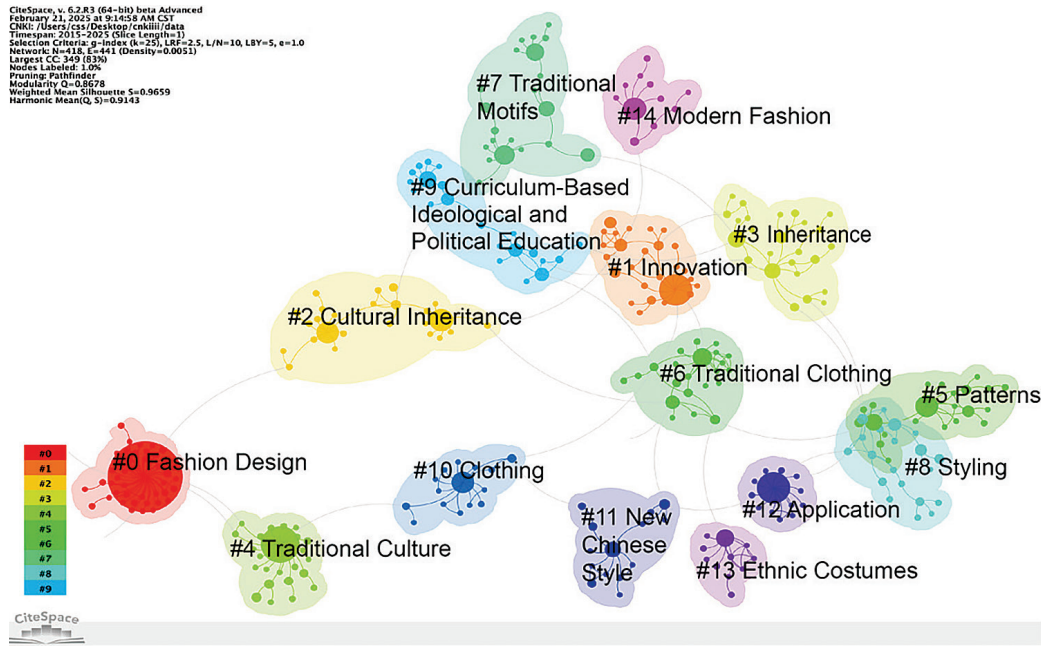


Figure 5. Keyword clustering map on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)

Table 2. Keyword timeline map on Chinese cultural elements in fashion design

ClusterID	Size	Silhouette	mean (Year)	Label (LLR)
#0	43	1	2020	fashion design; modern fashion design; apparel and accessories design; red culture; innovation
#1	26	0.978	2019	innovation; innovative design; fashion design; auspicious patterns; tradition
#2	25	0.944	2020	cultural inheritance; innovative application; form of expression; design thinking; visual communication
#3	25	0.963	2018	inheritance; ethnic culture; hanfu; development; confucianism
#4	24	0.988	2021	traditional culture; cultural value; peking opera facial makeup; traditional craftsmanship; application
#5	22	0.943	2020	pattern; paper-cutting art; design; motif; modern womenswear
#6	22	0.943	2019	traditional clothing; ethnic minorities; elements; culture; re-innovation
#7	21	0.967	2019	traditional motifs; traditional patterns; pattern design; apparel patterns; cultural confidence
#8	21	0.948	2021	styling; artistic value; colour; fabric; design methods
#9	21	0.922	2020	curriculum-based ideological and political education; Chinese style; traditional elements; guochao; streetwear brands
#10	15	0.959	2018	apparel; Zhongshan suit; costume; aesthetic; embroidery technique
#11	14	0.98	2021	new Chinese style; costume elements; application value; integration of Chinese and Western styles; rootedness

Table 2. Continued

ClusterID	Size	Silhouette	mean (Year)	Label (LLR)
#12	13	0.902	2019	application; animation character design; function; design application; traditional costume elements
#13	11	1	2023	ethnic costumes; Guangxi; Aig; Yao ethnic group; vocational education at secondary level
#14	11	1	2019	modern fashion; modern apparel and accessories; printing and dyeing design; ink wash pattern; innovative zhuang brocade

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)

According to established standards, a Q-value greater than 0.3 and an S-value above 0.5 indicated a reliable clustering outcome (Chen *et al.*, 2015). In this study, the Q-value was 0.8678 and the S-value was 0.9659, demonstrating a robust and reliable clustering structure. By combining the clustering results from Figure 5 with the keyword cluster information in Table 2, four major thematic knowledge domains related to the application of Chinese cultural elements in fashion design were identified:

1. Fashion design and contemporary innovation

The primary cluster keywords in this domain included #0 fashion design, #1 innovation, #11 New Chinese Style, and #14 modern fashion. Research in this area focused on reconstructing traditional cultural elements within modern apparel and accessories to create innovative styles that met contemporary market demands. The development of New Chinese Style fashion served as a representative case, achieved through silhouette optimisation, the modernisation of embroidery and motifs, and the use of innovative materials (Liu *et al.*, 2024; Sun & Wang, 2024). The rise of Guochao drove the extensive application of traditional cultural symbols in fashion design, further strengthening consumers' sense of cultural identity (Wang & Xu, 2023).

2. Cultural inheritance and symbolic application

The cluster keywords associated with this theme included #2 cultural inheritance, #3 inheritance, #4 traditional culture, #6 traditional clothing, #12 application, and #13 ethnic costumes. The researchers focused on the adaptation of traditional silhouettes, the innovation of embroidery techniques, and the contemporary expression of cultural symbols. This included the integration of traditional costume elements such as Hanfu, qipao, and Miao embroidery into contemporary fashion design (Ning & Tian, 2015). The innovative design of ethnic clothing aimed to preserve cultural connotations while optimising structure, materials, and craftsmanship to suit contemporary wearing habits (Wang & Li, 2016). Meanwhile, the rise of the "Guochao" economy encouraged the market-oriented use of traditional cultural symbols, with many brands redesigning classic patterns, colour systems, and cultural motifs to enhance cultural value and strengthen consumer identity.

3. Garment craftsmanship and structural design

This research domain included cluster keywords such as #5 patterns, #7 traditional motifs, and #8 styling. Designers integrated traditional techniques such as embroidery, tie-dye, and digital printing with modern fashion to enhance both aesthetic appeal and market viability (Xu, 2023). The researchers also emphasised the compositional methods of incorporating traditional motifs into apparel design (Li, 2023), balancing modern aesthetics with the preservation of cultural symbolism.

4. Fashion culture communication and education

Key cluster terms in this area included #9 curriculum-based ideological and political education and #10 apparel. This theme integrated fashion education with traditional culture, social responsibility, and creative thinking. It supported curriculum reform to improve students' understanding of the cultural value of apparel and encouraged awareness of sustainability, ethnic heritage, and social responsibility, thereby cultivating cultural confidence (Wu, 2022). Furthermore, the global dissemination of Chinese fashion culture was emphasised through cross-cultural exchanges, digital technologies, and international fashion platforms, aiming to elevate the global impact of Chinese apparel traditions (Jia, 2023; Du, 2024).

The cluster analysis allowed identifying four key thematic areas of research in the field of fashion design based on Chinese cultural elements. These include: contemporary interpretation of traditional motifs in fashion design, symbolic reinterpretation of cultural heritage, combination of traditional craftsmanship with innovative structural solutions, and development of fashion education with a focus on cultural values. These areas reflect the desire to integrate cultural heritage into current design practices, ensuring a balance between aesthetics, functionality, and social significance.

Analysis of keyword bursts and timeline mapping. Burst detection and timeline analysis of keywords related to fashion design based on Chinese cultural elements provided a clear visualisation of the field's historical evolution and the trajectory of emerging research hotspots (Fig. 6, 7). These analyses, including keyword bursts (with associated burst strength and time intervals) and timeline visualisation, helped to trace the progression of scholarly attention.

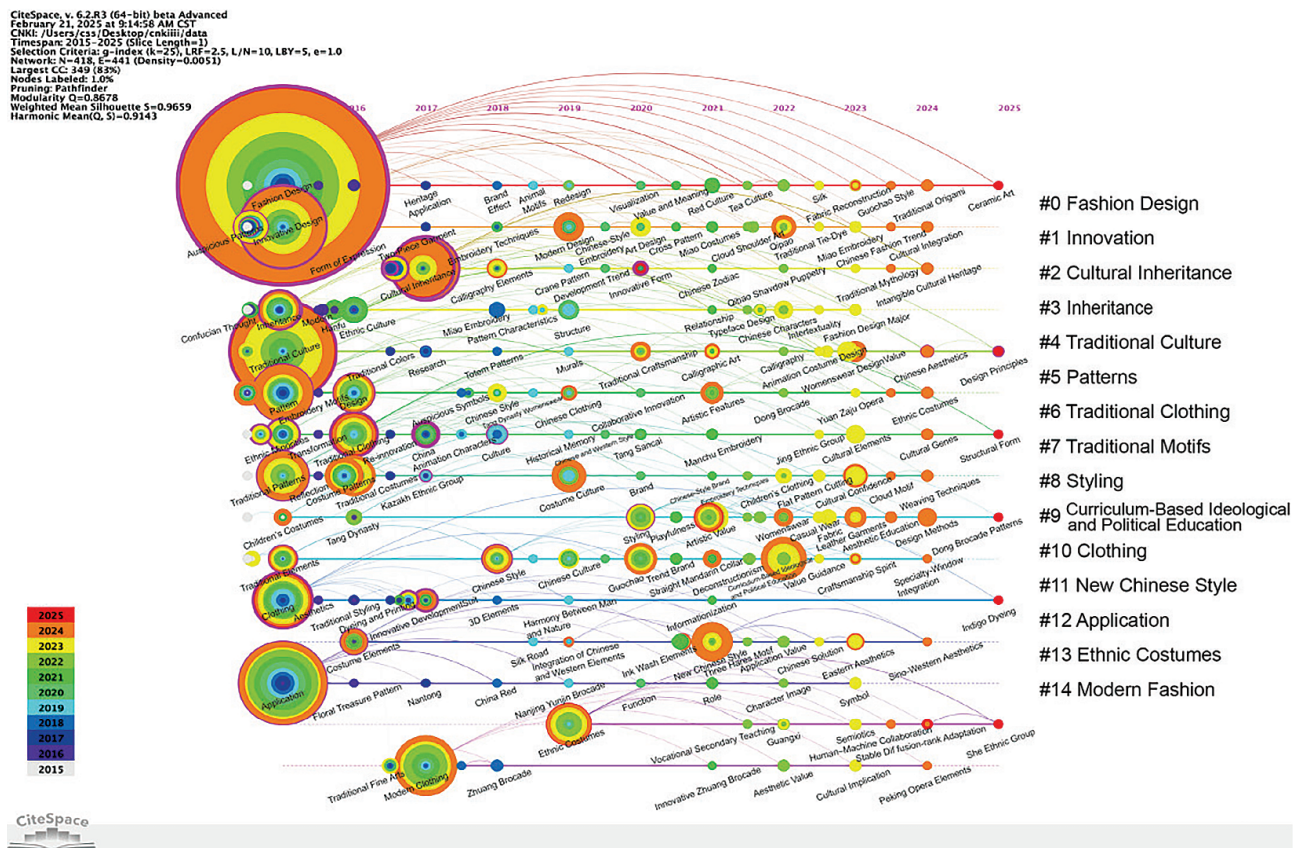
Top 20 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2015-2015
Application	2015	5.43	2015	2020	
Auspicious Patterns	2015	2.7	2015	2018	
Tradition	2015	2.39	2015	2018	
Ethnic Culture	2016	2.9	2016	2021	
Craftsmanship	2016	1.82	2016	2017	
Form of Expression	2017	2.68	2017	2018	
China	2017	1.61	2017	2021	
Clothing	2015	3.16	2018	2019	
Culture	2018	2.27	2018	2019	
Pattern	2015	1.61	2018	2019	
Structure	2019	2.76	2019	2020	
Modern Design	2019	1.9	2019	2020	
Chinese Culturev	2019	1.49	2019	2021	
Styling	2020	1.91	2020	2022	
Color	2021	3.22	2021	2022	
Curriculum-Based Ideological and Political Education	2022	3.8	2022	2023	
Chinese Characters	2022	1.5	2022	2023	
New Chinese Style	2021	2.72	2023	2025	
Womenswear Design	2023	1.73	2023	2025	
Leather Garments	2023	1.73	2023	2025	

Figure 6. Keyword burst map on Chinese cultural elements in fashion design

Note: data updated as of January 2025

Source: generated by the authors using CiteSpace, based on data from the CNKI database (2015-2025)



Based on the statistical data of burst keywords and the timeline map – shown in Figures 6 and 7 – the following characteristics were identified. Keywords such as “application” (2015), “auspicious patterns” (2015) and “tradition” (2015) represented some of the earliest emerging research focuses in this field. These topics primarily addressed the application of traditional Chinese costume elements and ethnic cultural symbols (Qi, 2015) – in particular, the integration of auspicious patterns, papercutting, and traditional handicrafts into fashion design. Subsequently, keywords such as “ethnic culture” (2016), “craftsmanship” (2016), and “form of expression” (2017) became prominent, reflecting a research shift from symbolic interpretation to the revival and innovation of traditional craftsmanship (Du & Zhou, 2021). In recent years, emerging keywords such as “New Chinese Style” (2023), “womenswear design” (2023), and “leather garments” (2023) indicated a growing scholarly interest in the integration of traditional costume elements with modern fashion, and a focus on the development of specific apparel categories.

From the perspective of duration, the keywords “application” (2015-2020) and “ethnic culture” (2016-2021) were the most sustained research hotspots, each lasting five years. This indicated that the contemporary application of traditional apparel elements and the inheritance of ethnic cultural symbols have remained core areas of academic interest over an extended period. Following closely was the keyword “China”, which remained active for four years, suggesting that Chinese cultural elements became a central topic of discussion in fashion design during that period. Topics related to New Chinese Style emerged as a new hotspot from 2023 to 2025, highlighting the innovative evolution of traditional clothing styles in contemporary fashion design.

This research field has experienced four major bursts of keyword activity, occurring in 2015, 2018, 2019, and 2023. In 2015, keywords such as “application”, “auspicious patterns”, and “tradition” underwent noticeable bursts, indicating that early research focused primarily on integrating traditional cultural symbols, ethnic motifs, and handicraft techniques into fashion design. In 2018, keywords like “apparel”, “culture”, and “patterns” emerged, showing a gradual expansion of research toward cultural expression and the development of visual language in apparel design. The year 2019 marked another intensive burst period, with keywords such as “structure”, “modern design”, and “Chinese culture” reflecting a shift toward structural optimisation, methodological innovation, and the modern reinterpretation of traditional craftsmanship. In 2023, the emergence of keywords like “New Chinese Style”, “womenswear design”, and “leather garments” suggested an increasing focus on category-specific innovation and the systematic development of fashion styles in modern apparel design.

Regarding burst strength, the keyword “application” ranked highest with a value of 5.43, demonstrating the strong research focus on how traditional apparel elements were integrated into modern apparel and accessories, particularly in terms of cultural symbols, techniques, and materials. “Curriculum-Based Ideological and Political Education” and “colour” followed, with burst strengths of 3.8 and 3.22, respectively. This indicated that curriculum reform has become an important area in fashion design education, and that colour remained a vital component of apparel design research. The keyword “New Chinese Style”, with a burst strength of 2.72, reflected growing scholarly interest in this design trend, including topics such as modern reinterpretations of traditional silhouettes, contemporary expressions of embroidery and motifs, and the embodiment of traditional aesthetic values (Liu & Xu, 2023).

The keyword timeline map clearly revealed the temporal evolution of research on fashion design incorporating Chinese cultural elements, which could be divided into three distinct stages. Stage 1 (2015-2018) focused on the extraction and decorative application of traditional cultural symbols. Core keywords such as “application”, “auspicious patterns”, and “tradition” indicated that early research emphasised the application of traditional Chinese motifs, folk art symbols, and ethnic cultural elements in apparel design, with particular attention to their visual expression in contemporary fashion. Stage 2 (2019-2022) exhibited thematic diversification, including culture, structure, modern design, styling, colour, and curriculum-based ideological and political education. Research in this stage began to shift from symbolic decoration toward structural refinement, innovation in design methods, and the modernisation of ethnic cultural expression (Wang *et al.*, 2022; Iudova-Romanova, 2025). The burst of curriculum-based ideological and political education in 2022 also signalled a growing integration of fashion education with cultural identity, emphasising the role of fashion design curricula in promoting national culture, social responsibility, and sustainable development. Stage 3 (2023-2025) was marked by keywords such as New Chinese Style, womenswear design, leather garments, Guochao trend, and computer-aided design, indicating an ongoing shift toward the systematic construction of New Chinese Style and the innovation of apparel categories.

Trends and prospects in fashion design research based on Chinese cultural elements. With the rapid advancement of digital technologies and the deepening of academic inquiry, research on fashion design based on Chinese cultural elements has gradually transcended traditional perspectives, moving toward interdisciplinary integration, theoretical refinement, and practical application. By analysing the relevant literature, this study summarised the current state and future trends of research in this area.

The study of fashion design rooted in Chinese cultural elements has evolved from traditional cultural interpretation toward a fusion of theoretical development and practical application. Early research primarily focused on documenting and analysing the cultural symbols, patterns, and craftsmanship of traditional Chinese attire. Methodologies were largely limited to historical analysis, visual interpretation, and case studies, lacking systematic theoretical frameworks and failing to generate replicable design models. In recent years, scholars have increasingly incorporated perspectives such as cultural identity, semiotics, and consumer culture theory to explore the innovative application of Chinese cultural elements in contemporary fashion design (Yang & Liu, 2020). In particular, under the growing influence of the New Chinese Style design philosophy, how traditional cultural symbols were recontextualised through apparel design has become a prominent topic. Researchers have also begun integrating market research and user experience analysis to evaluate the design value and market adaptability of cultural elements (Yu, 2022), thereby promoting the transformation of theoretical research into practical innovation. Looking ahead, the construction of a comprehensive theoretical system remained a pressing issue. Especially in the context of interdisciplinary collaboration, there was great potential in leveraging emerging technologies such as artificial intelligence (AI) and computer vision to optimise traditional costume design methods, as described by Y.W. Zhang *et al.* (2024), – an area worthy of further in-depth exploration.

From the perspective of current research hotspots, studies on fashion design based on Chinese cultural elements focused on three primary areas. First, the innovative expression of cultural symbols. How elements such as traditional silhouettes, patterns, and embroidery were reinterpreted in modern apparel design remained a central academic concern (Chen & Hu, 2023). The development of New Chinese Style fashion, for example, involved not only the optimisation of traditional garment structures but also the integration of traditional handicrafts with modern technologies. Second, the integration of diverse cultures. With the acceleration of globalisation, researchers have paid increasing attention to the fusion of traditional Chinese costume elements with international design styles. Topics such as East-West hybrid design and the global promotion of Chinese-inspired fashion have become emerging research focal points (Cheng, 2024). Third, the market orientation driven by consumer culture. The rise of Guochao has brought widespread attention to the commercialisation of traditional clothing elements. How fashion brands leveraged cultural narratives to attract consumers has become a core research topic. Future studies may further integrate insights from consumer psychology and data analytics to explore how cultural elements

can enhance brand identity and market competitiveness (Cui, 2023).

The diversification of research methods and the integration of multiple disciplines have become key trends in this field. Earlier studies predominantly relied on historical document analysis, fieldwork, and case studies, with relatively limited methodological diversity. Since the term “3D” first appeared in this research field in 2018, the continuous evolution of digital technologies has led to the successive introduction and widespread application of methods such as data analysis, intelligent design, and user experience research in fashion design studies. For instance, CiteSpace knowledge mapping has become a widely used tool for tracing the evolutionary paths of fashion design research (Xiang *et al.*, 2024; Qin & Mu, 2024). The application of technologies such as computer-aided design (CAD), virtual fitting, and AI-generated content (AIGC) became increasingly widespread in fashion design, offering new possibilities for the digital expression of cultural elements and intelligent design (Chen & Tong, 2025; Wei & Liu, 2025). Future research is expected to place greater emphasis on the application of intelligent algorithms in fashion design (Zhao, 2021), aiming to achieve deeper integration between cultural elements and smart design, and thereby enhance the overall innovation capacity of fashion design.

The study of fashion design based on Chinese cultural elements demonstrates a shift from traditional analysis to an interdisciplinary approach that combines theoretical reflection, digital technologies, and practical innovation. The widespread adoption of tools such as CAD, AIGC, virtual fitting, data analysis and knowledge visualisation is helping to deepen the connection between cultural identity, design and market adaptability. Future research will focus on the development of comprehensive theoretical models and the use of intelligent algorithms to optimise design and enhance the competitiveness of cultural content in the fashion industry.

CONCLUSIONS

This study employed CiteSpace-based knowledge mapping to systematically review and visualise research on the application of Chinese cultural elements in fashion design. Compared with traditional literature review methods, this data-driven approach provided a more objective and systematic perspective. By analysing high-frequency keywords, identifying thematic clusters, and detecting bursts, the study constructed a clear knowledge structure that effectively illustrated the evolution and internal logic of key research themes within the field. The results indicated a general upward trend in annual publication volume, with a rapid growth phase from 2021 to 2024, during which the number of publications rose from 134 to 289. A total of 332 researchers participated, demonstrating a considerable research scale; however, only 13 authors published

more than three papers, reflecting a low proportion of prolific contributors and a relatively fragmented collaboration pattern. Research institutions were predominantly higher education establishments, with limited interdisciplinary and cross-regional cooperation, and no stable nationwide research network had yet been established. Highly cited literature primarily focused on the contemporary transformation of traditional cultural elements and cultural innovation methodologies, emphasising the reinterpretation of traditional symbols and the empowering role of intelligent technologies in design research.

The knowledge structure of this field was categorised into four major domains: fashion design and contemporary innovation; cultural inheritance and symbolic application; garment craftsmanship and structural design; and fashion culture communication and education. “New Chinese Style” emerged as a prominent research focus, with scholars exploring how traditional cultural symbols could be aligned with contemporary aesthetics through silhouette optimisation, embroidery innovation, and colour system reconstruction. Overall, the field transitioned from traditional cultural interpretation towards a synthesis of design innovation and practical application, with research methods increasingly reflecting interdisciplinary integration and technological enhancement. Future studies may incorporate consumer research and user experience analysis, expand the use of intelligent design tools, and establish globalised strategies for cultural dissemination, thereby facilitating the sustainable and innovative expression of Chinese cultural elements in the international fashion

context. Although knowledge mapping offered significant advantages in revealing research trends, the analysis was still subject to limitations related to database coverage and keyword selection strategies. At present, the study relied primarily on Chinese-language databases (CNKI), lacking the integration and comparative use of international databases such as Web of Science and Scopus. As a result, it had yet to fully reflect how Chinese cultural elements are perceived, interpreted, and applied in global fashion design contexts.

Future research should, incorporate more qualitative approaches based on quantitative analysis, such as in-depth interviews, case studies, and user experience evaluations. These methods will provide deeper insights into the cultural semantics, visual language, and practical application of Chinese cultural elements in fashion design. Furthermore, expanding data sources to include both Chinese and international databases would help construct a globally oriented research framework and promote the innovative and sustainable integration of Chinese cultural elements within the international fashion discourse.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

- [1] Chen, C. (2004). Searching for intellectual turning points: Progressive knowledge domain visualization. *Proceedings of the National Academy of Sciences*, 101(1), 5303-5310. doi: 10.1073/pnas.0307513100.
- [2] Chen, L., & Tong, Z. (2025). Optimization of clothing pattern design combining deep learning and CAD. *Computer-Aided Design and Applications*, 22(S1), 237-252. doi: 10.14733/cadaps.2025.S1.237-252.
- [3] Chen, X., & Liu, Y. (2019). Culture factor extraction and design application of shadow play based on satisfaction analysis. *Journal of Graphics*, 40(5), 953-960. doi: 10.11996/JG.j.2095-302X.2019050953.
- [4] Chen, Y., & Hu, L. (2023). [Research on innovative design of blue and white porcelain decorative patterns in clothing](#). *Fashion Designer*, 10, 48-52.
- [5] Chen, Y., Chen, C., Liu, Z., Hu, Z., & Wang, X. (2015). The methodology function of CiteSpace mapping knowledge domains. *Studies in Science of Science*, 33(2), 242-253. doi: 10.16192/j.cnki.1003-2053.2015.02.009.
- [6] Cheng, K.X. (2024). [Neo-Chinese women's clothing design under the integration of Chinese and western aesthetics](#). *Textile Dyeing and Finishing Journal*, 5, 91-93.
- [7] Cui, R.R. (2023). The construction and theoretical interpretation of the “Chinese style” fashion design system. *Journal of Shanghai Jiaotong University (Philosophy and Social Sciences)*, 31(4), 66-77. doi: 10.13806/j.cnki.issn1008-7095.2023.04.006.
- [8] Deng, Y. (2019). Application of Chinese traditional auspicious patterns in modern design. *Packaging Engineering*, 40(20), 223-225+235. doi: 10.19554/j.cnki.1001-3563.2019.20.037.
- [9] Dong, T. (2024). The value and visual communication of blue and white porcelain in clothing design. *Dyeing & Finishing*, 50(11), 88-91. doi: 10.3969/j.yinran.202411022.
- [10] Du, J., & Zhou, W. (2021). The “change” and “shape” of button arrangement in clothing design. *Wool Textile Science and Technology*, 49(4), 76-81. doi: 10.19333/j.mfkj.20200702806.
- [11] Du, Z.J. (2024). The inheritance and propagation of national culture by national costume design. *Printing and Dyeing*, 50(12), 91-94. doi: 10.3969/j.yinran.202412020.

- [12] Guan, H., & Guo, X. (2021). [New trends in brand experience research: A bibliometric perspective](#). *Commercial Research*, 2, 54-58.
- [13] Jia, N. (2023). [Digital communication of clothing culture from the perspective of intangible cultural heritage: A case study of the 2023 China \(Shenzhen\) International Brand Clothing & Accessories Fair](#). *Cotton Textile Technology*, 11, 100-101.
- [14] Jiang, L.P. (2019). Application of Chinese traditional pattern in modern costume design. *Chemical Fibre & Textile Technology*, 48(3), 35-38, 51. doi: [10.3969/j.issn.1672-500X.2019.03.009](#).
- [15] Iudova-Romanova, K. (2025). Exploring the combination of visual and performance arts in contemporary installations. *Interdisciplinary Cultural and Humanities Review*, 4(1), 46-55. doi: [10.59214/cultural/1.2025.46](#).
- [16] Lei, Y. (2020). Application of national traditional culture in art design. *Packaging Engineering*, 41(6), 296-299. doi: [10.19554/j.cnki.1001-3563.2020.06.048](#).
- [17] Li, K. (2023). [Application of folk patterns in textile and apparel design](#). *Western Leather*, 45(9), 126-128.
- [18] Lin, Y.P., Li, H.K., Dai, Y., Zhang, Z.Z., Yang, C., & Zhang, L.Y. (2024). Application of Gan embroidery (Yuzhang embroidery) in Neo-Chinese-style woolen clothing with the inheritance of intangible cultural heritage. *Fibres & Textiles in Eastern Europe*, 32(5), 15-26. doi: [10.2478/ftee-2024-0028](#).
- [19] Liu, C., & Liu, Q. (2021). Creative application of the Zhongshan suit in clothing design for older Chinese males. *Fashion Practice*, 13(1), 156-164. doi: [10.1080/17569370.2021.1873518](#).
- [20] Liu, S.R., Wang, H.E., & Tang, K.J. (2024). [Application of Chinese traditional patterns in new Chinese sweater garment design](#). *Progress in Textile Science & Technology*, 46(11), 55-57, 69.
- [21] Liu, Y., & Xu, X. (2023). [Artistic application of Chinese aesthetics in emerging designer brands](#). *China Dyeing & Finishing*, 1, 92-93.
- [22] Ning, X.L., & Tian, J. (2015). Reference and application of Guizhou Miao embroidery patterns in modern design. *Guizhou Ethnic Studies*, 36(7), 49-52. doi: [10.13965/j.cnki.gzmzyj10026959.2015.07.013](#).
- [23] Qi, X.L. (2015). [On the integration and application of traditional ethnic elements in fashion art](#). *Art Observation*, 7, 96-99.
- [24] Qin, Y.Q., & Mu, Y. (2024). Innovative application of Yangliuqing woodblock New Year painting elements in national trend products. *Wool Textile Journal*, 52(7), 56-63. doi: [10.19333/j.mfkj.20230503208](#).
- [25] ShanghaiRanking. (2024a). *Three majors from our School of Fashion and Art Design were awarded Grade A in the 2024 ShanghaiRanking's Academic Ranking of World Universities (ARWU) for Chinese Universities*. Retrieved from <https://www.xpu.edu.cn/info/1132/23977.htm>.
- [26] ShanghaiRanking. (2024b). *Textile science and engineering ranked 3rd in the world! 2024 ShanghaiRanking's global ranking of academic subjects released*. Retrieved from <https://surl.li/lthyfs>.
- [27] Song, J., Tie, Y.M., & Zhou, H.L. (2023). Application of the Ming Dynasty garment tying mode in fashion design. *Journal of Silk*, 60(7), 100-106. doi: [10.3969/j.issn.1001-7003.2023.07.013](#).
- [28] Song, J., Vongphantuset, J., Sirivesmas, V., & Charungkiattikul, S. (2024). [The application of the "Xiangyun" pattern in contemporary Chinese fashion design: A strategy for clothing art education](#). *ArtsEduca*, 40, 97-106.
- [29] Sun, M., & Wang, X. (2024). Combination of traditional embroidery craftsmanship and modern clothing design from the perspective of cultural heritage. *Printing and Dyeing*, 50(3), 102-105. doi: [10.3969/j.yinran.202403023](#).
- [30] Tian, H.W. (2024). Chinese folk embroidery bellyband: The intersection of loving symbol, emotional release, and spiritual needs. *Textile: The Journal of Cloth and Culture*, 22(1), 84-101. doi: [10.1080/14759756.2022.2140895](#).
- [31] Wan, L., & Li, Y.S. (2024). Research on the current situation and optimization strategy of graduation design teaching in fashion design major of Beijing Institute of Fashion Technology. *Decoration*, 6, 38-39. doi: [10.16272/j.cnki.cn11-1392/j.2024.06.024](#).
- [32] Wang, H., Yang, N., & Zhu, Y. (2022). Research on the application of honeysuckle patterns in Dunhuang murals in clothing design. *Shoes Technology and Design*, 2(3), 15-17. doi: [10.3969/j.issn.2096-3793.2022-03-004](#).
- [33] Wang, J.Y., & Xu, X.M. (2023). [Application of Han Dynasty stone relief elements in contemporary Guochao fashion design](#). *China Dyeing & Finishing*, 8, 98-99.
- [34] Wang, Q., & Tang, L. Y. (2022). [Analysis on the research progress of space reconstruction of higher vocational college libraries – bibliometric and visualization analysis based on CNKI data](#). *Media Forum*, 23, 115-117.
- [35] Wang, S.G. (2017). Rain Classroom: The wisdom teaching tool in the context of mobile internet and big data. *Modern Educational Technology*, 5, 26-32. doi: [10.3969/j.issn.1009-8097.2017.05.004](#).
- [36] Wang, W., & Chen, B. (2024). A comparison of CiteSpace-based research on the integration of Chinese and foreign traditional cultures into clothing designs. *Frontiers in Art Research*, 6(6), 1-11. doi: [10.25236/FAR.2024.060601](#).

- [37] Wang, W.J., & Li, Y.X. (2016). Aesthetic principles of Chinese paper-cutting art and its application in clothing design. *Journal of Silk*, 53(5), 50-54. doi: [10.3969/j.issn.1001-7003.2016.05.009](https://doi.org/10.3969/j.issn.1001-7003.2016.05.009).
- [38] Wei, Y., & Liu, W. (2025). [Research on the current application of AIGC in fashion design](#). *Wool Textile Technology*, 1, 134-142.
- [39] Wu, C. (2022). [Exploration and practice of ideological and political education reform for professional curriculum in the context of national tide culture](#). *Henan Social Sciences*, 5, 116-124.
- [40] Wu, Q., Zhu, B.X., Yong, B.B., Wei, Y.Q., Jiang, X.T., Zhou, R., & Zhou, Q.G. (2021). ClothGAN: Generation of fashionable Dunhuang clothes using generative adversarial networks. *Connection Science*, 33(2), 341-358. doi: [10.1080/09540091.2020.1822780](https://doi.org/10.1080/09540091.2020.1822780).
- [41] Xiang, F.P., Wan, Y.H., & Liu, A.D. (2024). Visualization analysis of research trends in Yi costumes based on CiteSpace. *Modern Textile Technology*, 32(12), 90-100. doi: [10.19398/j.att.202403006](https://doi.org/10.19398/j.att.202403006).
- [42] Xiao, J.H., & Sun, Y.R. (2023). Review of the research on private compulsory education in my country since the reform and opening up: A bibliometric visualization analysis based on Citespace. *Journal of Heilongjiang Teachers Development College*, 42(1), 98-102. doi: [10.3969/j.issn.2096-8531.2023.01.030](https://doi.org/10.3969/j.issn.2096-8531.2023.01.030).
- [43] Xu, Y. (2023). [The inheritance of traditional clothing culture in modern fashion design](#). *Cotton Textile Technology*, 7, 96-97.
- [44] Yang, S., & Liu, W.D. (2020). Research on "Guochao": New trends in clothing design under the integration of trendy brand culture and Chinese culture. *Hunan Packaging*, 35(2), 102-106. doi: [10.19686/j.cnki.issn1671-4997.2020.02.024](https://doi.org/10.19686/j.cnki.issn1671-4997.2020.02.024).
- [45] Yu, H.W. (2022). [Innovative application and value expression of traditional cultural elements in modern fashion design](#). *Chemical Fiber & Textile Technology*, 2, 141-143.
- [46] Yuan, X. (2024). [Research on the effectiveness of Chinese cultural elements in fashion design](#). *Liaoning Silk*, 4, 96-97.
- [47] Zhang, B., Ren, J.X., & Liu, K.X. (2024). Research on the color of Chinese landscape painting and its application in fashion design. *Journal of the Textile Institute*, 116(12), 2835-2850. doi: [10.1080/00405000.2024.2398272](https://doi.org/10.1080/00405000.2024.2398272).
- [48] Zhang, Y.W., Wang, X., Xuan, L.J., Tian, X., He, L., Jiang, M., Zhao, C., & Liu, S.Y. (2024). [Digital construction method of textile and clothing museum based on virtual simulation technology – taking the textile and clothing museum of Henan Engineering College as an example](#). *Journal of Henan University of Engineering (Natural Science Edition)*, 36(4), 13-1925.
- [49] Zhao, M. (2021). Application progress of artificial intelligence in clothing style design. *Textile Guide*, 12, 74-77. doi: [10.16481/j.cnki.ctl.2021.12.021](https://doi.org/10.16481/j.cnki.ctl.2021.12.021).
- [50] Zou, Y., Pintong, S., Shen, T., & Luh, D. (2022). Evaluation and trend of fashion design research: Visualization analysis based on CiteSpace. *Fashion and Textiles*, 9, article number 45. doi: [10.1186/s40691-022-00316-6](https://doi.org/10.1186/s40691-022-00316-6).

Аналіз дослідницьких напрямків і тенденцій в дизайні одягу на основі китайських культурних елементів

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Анотація. Китайська культура, вкорінена в тисячолітньому історичному розвитку, демонструє глибоку філософську глибину та естетичну життєздатність. Її інтеграція в дизайн одягу привертає дедалі більшу увагу науковців. Це дослідження мало на меті систематично проаналізувати науковий прогрес, основні теми та тенденції, що розвиваються в цій галузі. За допомогою програмного забезпечення CiteSpace було проаналізовано 1 214 наукових статей, проіндексованих у базі даних Китайської національної інфраструктури знань. Бібліометричні та візуалізаційні методи були застосовані для дослідження річного обсягу публікацій, авторських та інституційних мереж співпраці, високоцитованої літератури, повторюваності ключових слів, кластеризації, виявлення сплесків та розподілу за часовою шкалою. Було виявлено, що обсяг наукових публікацій неухильно зростає і досяг піку у 2024 році. Відносини співпраці між авторами та установами залишалися фрагментарними, а академічний вплив зосереджувався серед невеликої кількості продуктивних авторів та ключових університетів. Найбільш цитовані дослідження стосувалися переважно сучасної трансформації традиційних мотивів, культурних інновацій та методології дизайну. Кластеризація ключових слів визначила «новий китайський стиль», «культурні інновації», «традиційне ремесло» та «дизайн-експресія» як домінуючі теми. Хронологічний аналіз та аналіз сплесків показав зміну тенденції від досліджень, орієнтованих на спадщину, до міждисциплінарної інтеграції, розширення цифрових можливостей та інновацій, орієнтованих на ринок. Це дослідження запропонувало теоретичні висновки та методологічні рекомендації для науковців, освітян і дизайнерів, які займаються сталим і творчим застосуванням китайських культурних елементів у моді. Воно також сприяло глобальному поширенню та сучасному переосмисленню китайської культури в дискурсі моди

Ключові слова: CiteSpace; аналіз візуалізації; дизайн у китайському стилі; культурні інновації; дизайнерські інновації



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Design projecting of clothing collections based on the transformation of the forms of women's costume of the 1920s

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Abstract. The relevance of the study is determined by the need to explore new creative techniques for developing original clothing collections distinguished by artistic expressiveness, high aesthetic quality, and strong emotional content. The aim of the research was to develop artistic design projects for women's clothing collections inspired by the women's costume of the 1920s. The research methods included the study of creative sources, which involved analysing silhouettes, shapes, characteristic lines, proportions, colour schemes, textures, decoration, accessories, and complementary elements. The morphological analysis method applied in the study entailed generating new ideas through the reinterpretation and transformation of the source of inspiration into forms of contemporary clothing. The research also involved the selection and stylisation of compositional elements of form creation, the implementation of the project in material, and the testing of design solutions within the context of fashion design competitions. As a result, an artistic and compositional analysis of the source of inspiration was carried out, identifying the key shapes, silhouettes, proportions, decorations, and colours of the chosen reference. The core idea of the project was formulated, reflecting the authors' individual vision of the inspirational source. A mood board was created, encapsulating the authors' conceptual vision for the designed collections. Four variations of creative

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collections of modern women's clothing were developed, all inspired by a single source – the women's costume of the 1920s. A women's ensemble was produced and presented as part of fashion design competitions. The practical value of the study lies in developing the artistic and compositional foundations for designing contemporary women's clothing inspired by historical costume as a creative source

Keywords: historical costume; artistic image; mood board; sources of inspiration; creative concept; transformation of the creative source

INTRODUCTION

Inspiration plays a key role in the designer's creative activity, as it allows designers to discover interesting forms of clothing, combine historical and contemporary styles, and create something engaging and original. Without a source of inspiration, the clothing manufacturing process risks becoming a routine task, and the garments may lose their originality. Therefore, it is essential for designers to constantly seek new sources of inspiration to maintain a creative approach and develop their own personal style.

The development of a creative collection involves selecting a source of inspiration, which is an important component of the design process. The article by L. Krasniuk & O. Troyan (2020) stated that sources of inspiration are extremely significant elements of a designer's creativity, as they facilitate the generation of new ideas and the creation of an individual designer style. The researchers defined the main types of inspiration sources and revealed their role in the creative search for original ideas in clothing design. Authors A. Baigelenov *et al.* (2025) asserted that the source of inspiration plays a vital role in design, but its specific impact on design practice remains under-researched. By surveying professional designers, the authors found that designers draw inspiration from diverse sources, including existing visualisations, real-world phenomena, and personal experience. Based on this, the researchers concluded that modern design rarely emerges "from scratch" and almost always relies on one or more sources of inspiration. The authors claimed that practically all design outcomes result from some combination of previous designs, real-world phenomena, and the designer's personal experience and knowledge.

A. Omwami *et al.* (2020) noted that sources of inspiration are divided into two categories: real and mental. Real sources include objects and phenomena that exist in objective reality; that is, they can be perceived by the senses and have physical properties. Mental sources exist in the designer's consciousness; they are a product of thought, imagination, or feelings, such as memories, stories, perceptions of nature, or everyday life. It is this multiplicity of inspiration sources, stemming from the endless variety of the surrounding world, that allows the designer to create clothing collections that are simultaneously fashionable, original, and timeless. Despite the crucial role inspiration plays in design, its specific influence on the creative activity of the fashion designer remains insufficiently studied. This is why the

dissertation research by A. Omwami (2024) aimed to investigate inspiration in clothing design, involving the study of the interaction between inspiration and creative processes across various aspects of fashion design. The author contended that although clothing design is somewhat similar to other creative endeavours, it possesses exceptional features, the main one being the permanent interaction of the components of the "clothing-person-environment" system.

The study by B. Chen (2025) was dedicated to another feature of contemporary clothing design, namely the strong link between fashion and art. The author noted that in the nowadays, designers strive to use clothing design as a form of art or as a means of artistic expression; therefore, fashion design often goes beyond traditional visual presentation and simple commercial activity. In their work, the author noted that clothing design is increasingly recognised as a form of artistic expression that embodies the designer's imagination, reflections, or ideals. That is, fashion is not only an aesthetic phenomenon but also a cultural practice that preserves traditions while adapting them to a contemporary context. The work by V. Cherevach (2023) emphasised that the historical foundation and continuity in fashion are very important, as they are a form of expressing cultural identity and a way of establishing a connection with previous generations.

The importance of historical and cultural heritage in clothing design was described by F.E. Agordah (2025). The author argued that historical and cultural heritage is a vital link between the past and the present. The use of traditional textile products, patterns, and construction methods allows for the revival of cultural traditions, the development of new authentic products, and thereby the shaping of the future of design, contributing to the development of fashion, and preparing the next generation of designers to create clothing. The undeniable significance of historical and cultural heritage in the development of designer clothing collections was noted in the work by H. Papeta (2020). The author stressed that the ethnic motifs of Ukrainian folk dress are an inexhaustible source of ideas, images, and forms, where designers find new forms of spiritual and aesthetic continuity by using techniques of historical stylisation and reconstruction.

The relevance of the presented research is driven by the increased demands for the artistic expressiveness of modern clothing and, consequently, the need to find

creative techniques for the purpose of creating designer clothing collections that embody both aesthetics and functionality and carry powerful emotional content. The aim of this work was to develop artistic projects for women's clothing collections based on the motifs of the 1920s women's costume as a source of inspiration, and to realise the authors' idea in material for the approbation and verification of the design solutions.

MATERIALS AND METHODS

This scientific work included both theoretical and practical research, providing a comprehensive approach to exploring the possibilities of transforming the women's costume of the 1920s and creating new clothing models based on it. The combination of theoretical analysis and applied research was aimed at studying the methods and processes of artistic clothing design based on the figurative interpretation of the women's costume of the 1920s as a source of creative inspiration. Thus, theoretical studies created the necessary prerequisites for developing original ideas, while practical research made it possible to test their effectiveness and bring them to life. The theoretical component of the work included literary and analytical research to study the mechanisms and ways of using historical costume as a source of inspiration; visual and analytical research of verbal sources of information (drawings and photographs) used to examine stylistic features and distinctive characteristics of historical clothing; structural analysis applied to the study of composition, form, silhouettes, and colours of clothing models; and morphological analysis conducted during the transformation of identified features of the creative source into clothing models and for evaluating various design options for the developed collections. The research was based on a range of literary sources, including scientific and research literature, information presented on online platforms of fashion publications such as *Vogue* and *WWD* (Women's Wear Daily), as well as fashion history literature. When searching for new forms of collection models, the method of analogy was applied, in which analogous solutions from the women's costume of the 1920s were used to create new models, such as the dropped waistline, straight silhouette, rectangular and oval shapes, and decorative elements. The heuristic combination method was used to conduct a combinatorial search for new compositional and artistic solutions by combining elements of historical clothing with contemporary fashion features.

The study was conducted in several stages. At the first stage, literary and visual sources dedicated to the historical period of the 1920s and descriptions of women's costume of that time were thoroughly examined. The second stage involved a comprehensive analysis of the compositional elements of the women's costume of the given period. The analysis also considered the work of renowned contemporary designers such as Michael Kors and Reem Acra, who, in designing their

collections, turned to the fashion of the 1920s as a source of creative inspiration. To visualise the author's concept and optimise the creative process, a mood board was developed at the third stage of the research, and the main idea of the design project was formulated – recreating the atmosphere of freedom, luxury, and extravagance embodied in the images of the 1920s. The next stage of the research involved selecting compositional elements – form, silhouette, line, colour, texture, and decoration – followed by the creation of four variations of original women's clothing collections (“Retro Luxury,” “Jazz and Glamour,” “L'Art Nouveau,” and “Charleston”). Their creation was based on the principles of stylisation and interpretation, as well as partial transformation without destroying the structural connection with the source of inspiration. The practical component of the research included the development of sketch projects for the author's clothing collections, executed using traditional techniques. In addition, one of the designed clothing ensembles, “Retro Luxury,” was produced in material form and tested in the context of fashion design competitions (“Barvy Podillya” in Khmelnytskyi and “Constellation ‘Kashtan’” in Kyiv). Thus, the application of the described methodological approaches made it possible to propose various artistic and compositional solutions for women's clothing collections based on a single source of inspiration.

RESULTS AND DISCUSSION

Historical and folk costume as a source of inspiration for the fashion designer. For many contemporary designers, the most compelling and interesting factors in forming creative concepts are the historical costume of a certain period, retro fashion, and clothing style. M. Melnyk (2019), analysing historicism in fashion, reviewed the cyclicity of modern fashion development, highlighted the reasons and motives for fashion designers turning to historical heritage, and traced and provided clear examples of the application of features from past eras' costumes in contemporary fashion. The scholar examined many examples of using historical samples in the collections of famous designers and attested to the existence of imaginative and artistic connections between modern fashion and the clothing of past centuries. The author noted that these connections help clothing creators to successfully embody historical motifs in contemporary images.

In the work of H. Yuan (2023), it was noted that the modern fashion industry is a quite dynamic and rapidly developing sector that grows thanks to the creativity of designers who are constantly seeking inspiration and innovative approaches. The author asserted that designers play a crucial role in shaping trends and new styles, drawing inspiration from various sources, among which they often pay homage to the past, creating vivid images. Within the scope of this research, it was also demonstrated that historical sources,

particularly the fashion of the 1920s, inspire the creation of new ideas through the adaptation of iconic forms, colors, and decorative techniques to meet the needs of the contemporary consumer. D. Murphy (2011) provided examples of London designers using historical clothing as a source of inspiration. The author noted that the artistic and illustrative properties of historical clothing quite often form the basis of designers' ideas, determining the forms, proportions, and materials of the garments. The author showed that some designers became famous thanks to their collections created specifically from historical clothing motifs. These designers include: Vivienne Westwood, Alexander McQueen, Zandra Rhodes, Steward Stockdale, and Barry Tulip. Using their individual design techniques, these creators demonstrated novel solutions, reproducing unexpected connections between historical and current fashion.

The work of N. Sapfirova *et al.* (2024) was dedicated to researching the influence of historical costumes, as well as the culture and art of different historical epochs, on clothing design in the 20th and early 21st centuries. The authors outlined specific historical periods, investigated the chronology of artistic styles, and demonstrated their influence on the design of clothing and accessories in current haute couture collections. Summarising their research, the academics noted that designers are attracted by the creative possibilities provided by the costumes, ornamental motifs, patterns, painting, and religious artefacts of past epochs. A similar approach was implemented in the presented research: a meticulous analysis of the decorative elements and colours of the 1920s allowed for the adaptation of characteristic ornaments, textures, and compositional techniques within various assortment groups – from outerwear to evening dresses.

In the work of M. Kertakova (2022), the conceptual influence of the 19th-century historical costume on 21st-century fashion was examined using the examples of collections by such famous designers as Christian Lacroix, Jean-Paul Gaultier, Alexander McQueen, and Vivienne Westwood. The author noted that despite the fact that famous designers are inspired by long-gone eras, the fashion of the past returns not as something stagnant, but is expressed in differences in structural and decorative solutions, in the use of materials and their colour combinations, and in the mixing of fabrics of different composition and structure. The authors O. Ditkovska *et al.* (2022), in studying historical and modern models of women's capes (or cloaks), established that historical clothing has not lost its relevance and is a source of inspiration for contemporary designers. The conducted retrospective analysis showed that the types, forms, materials, and decorative elements of capes have constantly changed, yet this type of garment has not lost its popularity throughout the centuries since the 1750s. In the 2020s, the cape featured in the haute couture collections of famous global designers, such as

Chloé, Alexander Wang, Valentino, Elie Saab, Burberry, Christian Dior, Michael Kors, Fendi, Louis Vuitton, D&G, Marc Jacobs, Max Mara, and others.

In the work of I. Ugrekheldze (2024), the revival of vintage and retro styles in contemporary fashion was explored. The author noted that nostalgia for the past is a driving force that contributes to the reinterpretation of historical clothing and the shaping of prospective fashion by designers based on retro-motifs from the past. The work examined the key trends of vintage and retro styles in modern fashion (materials, colours, prints, embellishments, and accessories), particularly in the 2024 collections of renowned global brands such as Proenza Schouler, Max Mara, Gucci, Ralph Lauren, Louis Vuitton, Hermès, and Yves Saint Laurent. The research conducted by the author also showed that retro-motifs significantly influence the formation of modern fashion trends, and the designer's task is their competent interpretation and stylisation when creating a look.

Researchers N. Chuprina *et al.* (2020) established that ethnic style, eclecticism, and artistic kitsch are among the foundations of design practices in 21st-century fashion. Based on a comprehensive analysis of collections developed in an ethno-style inspired by Ukrainian folk dress, the authors identified a number of elements most frequently used by designers for projecting modern clothing. In conclusion, the authors asserted that an effective means against the mass standardisation of fashion products is clothing design using vintage styles, which form the basis of unique individual looks and thereby expand the possibilities of design. Examples of using street fashion as a creative source are provided in Kh. Lozynska (2011) and K. Pashkevych *et al.* (2023). In these articles, scholars investigated street fashion as a component of urban culture and the modern fashion industry and used it as a creative source for developing contemporary youth clothing collections.

M.S. Kyiashko *et al.* (2018) studied historical documents regarding the Trypillian culture and reproduced authentic options for constructing the form of Trypillian costumes. Based on this information, the scholars proposed interesting artistic and compositional techniques for solving modern clothing models. The authors selected a harmonious combination of colours and created original ornamental embellishment for the garments, considering modern fashion, based on which a women's clothing collection was developed. Motifs of the Trypillian cultural heritage also became a source of inspiration for the Ukrainian brand BEVZA, which presented a women's clothing collection for the Spring-Summer 2021 season at New York Fashion Week (Vogue Ukraine, 2020). The contemporary minimalist style characteristic of this brand was creatively combined by designer Svitlana Bevza with elements of the Trypillian civilisation.

The work of N.V. Billi-Ruban *et al.* (2018) examined the national costume of Hungarians from the 19th to

the beginning of the 20th century, which was chosen as the creative source for designing a collection of modern clothing. The transformation of the chosen creative source, the stylisation of its unusual forms, as well as the decorative and colouristic features of the Hungarian costume, were laid at the foundation of the development of contemporary women's festive wear ensembles. B. Sun's (2023) research aimed to substantiate the possibility of the innovative application of traditional elements inherent in Chinese culture in contemporary clothing design. The work noted that traditional cultural elements should be considered symbols, emblems, legends, customs, and rituals that hold an important place in traditional culture, and define the spirit of the nation. The author stated that using traditional cultural elements in modern clothing can introduce creativity into its design, provide unique styles, and thereby satisfy consumers' needs for individuality and diversity, as well as promote traditional culture and increase the competitiveness of products on the market. Similarly, in this study, the cultural codes of the 1920s were transformed into contemporary design solutions, considering the trends of the 2020s, which proves the universality of the ideational value of historical sources.

Thus, informational studies have attested that historical and folk costume are constant sources of creative inspiration. Turning to historical and folk heritage is a key moment in the creative process of fashion designers, as historical and folk costume offers diverse cuts, styles, and silhouettes, materials, and embellishments that can be adapted to modern clothing, which may be of interest to the consumer. Therefore, historical and folk costume not only preserves cultural heritage but also serves as a valuable resource for the development of the modern fashion industry.

Studying the source of inspiration: Women's fashion of the early 20th century. Researchers C. Eckert & M. Stacey (2000) asserted that sources of inspiration play an important role in the design process, as they give the designer the creative impulse for new ideas, forms, and images. F. Mete (2006) noted that a designer can find a source of inspiration everywhere: in art, music, nature, architecture, and historical costume. Sources of inspiration are diverse and dissimilar. Each has its own characteristic features, which form the basis for creating a unique and engaging artistic image.

The fashion of the 1920s was influenced by significant economic, political, and social changes, especially in Western European countries and the USA. This period, known as the "Roaring Twenties," was marked by massive social, cultural, and economic transformations, particularly in Western nations. It was then that fundamental changes in women's fashion took place, including the rejection of corsets in favour of short and loose dresses, accompanied by a transformation of women's hairstyles and lifestyle. The main trend is considered to

be the simplification of the female wardrobe by moving away from layering and gradually transitioning to more comfortable and convenient clothing (Reddy, 2020). The silhouette of femininity was replaced by a slender figure without distinctly emphasising the female body's form. The trends of that era were centred around the androgynous, masculine image of the "la garçonne" (the flapper), which brought the female appearance closer to the male, rejecting traditional notions of femininity (Ramzi, 2024). The shift dress, made of thin and light fabrics, was topical and was often embellished with lace, fringe, and sequins. Dresses were worn with both long sleeves and without sleeves, and featured a small neckline (Shevniuk, 2008; Holovenko *et al.*, 2023). Popular in women's clothing were the straight silhouette without a defined waist, as well as the silhouette with a dropped waistline and a full skirt (Fig. 1).



Figure 1. Fashionable dresses of the 1920s
Source: S. Bagai (2020), S. Albuquerque *et al.* (2023)

The renowned designers of the 20th century included Gabrielle Chanel, Paul Poiret, Madeleine Vionnet, Jeanne Lanvin, Jean Patou, and Elsa Schiaparelli (Fig. 2). In 1926, it was the Chanel brand that created the "little black dress," which caused a significant stir, as black at that time was mainly associated with mourning symbolism. Paul Poiret introduced loose silhouettes into fashion and abandoned corsets, while Madeleine Vionnet became famous for her draping techniques (Shevniuk, 2008).



Figure 2. Women's clothing models of the 1920s

Note: a – Paul Poiret, 1925; b – Madeleine Vionnet, 1926; c – Madeleine Vionnet, 1924; d – Gabrielle Chanel, 1926; e – Gabrielle Chanel, 1926

Source: The Kyoto Costume Institute (2023)

As for women's outerwear, in the 1920s, the cloak became widely used – a loose-fitting long outer garment, often decorated with luxurious fabrics and fur details. This item of clothing was usually chosen for

evening outings and formal events (Fig. 3). The mantilla not only corresponded to the aesthetic ideas of the time, but also served as a kind of marker of social status, embodying elegance and femininity in interwar fashion.



Figure 3. Women's outerwear of the 1920s

Source: D. De Angelis (2019)

Women's hats in the 1920s usually had narrow round brims or no brims at all. The cloche hat, designed by French fashion designer Caroline Rebou in 1919, became a popular headwear item. Hats were usually made of felt or straw and decorated with ribbons, feathers, pom-poms or artificial flowers (Shevniuk, 2008; Ramzi, 2024). Common women's hairstyles of this period

included short la garçonne cuts and curls created with hot tongs. Typical accessories included boas, fans, gloves, fur capes, small reticule bags and cigarette cases (as smoking was considered a sign of the times), and pearl jewellery was particularly prized. In the second half of the decade, short skirts became popular, and silhouettes became less voluminous and more form-fitting (Fig. 4).



Figure 4. Fashionable forms of women's clothing, 1925-1929

Source: Behance (2018)

One of the world's most famous designers who turned to 1920s fashion as a source of inspiration was Michael Kors. In his 2012 collection, he recreated the atmosphere of the 20th century and integrated it into modern life, but with own sense of style, characterised by elegance and classic features. The designer used a straight silhouette, repeating the silhouette of a sheath dress and a V-neckline, but made it more open than in the 1920s. The main decoration of the collection is sequins, and the plasticity of the shapes, colours and forms of the models correspond to the characteristic features of the era (Fig. 5).



Figure 5. Michael Kors, autumn-winter 2012 collection

Source: S. Bewkes (2012)

Reem Acra, a designer known for her dresses and their embellishments, successfully recreated the fashion of the 1920s in own women's clothing collection. She showed the characteristic cut of dresses from this period in collection – a low waist – and also used long gloves, an accessory popular in the 1920s. The silhouettes of the dresses were similar to that of a sheath dress, which does not emphasise the female figure. The dresses were decorated with sequins and striking shiny geometric details, and the colours were nude (Fig. 6).



Figure 6. Reem Acra, autumn 2012 collection

Source: R. Mitra (2012)

Thus, the fashion of the 1920s, which was a period of significant change and innovation, remains relevant nowadays, offering designers countless opportunities for creativity and self-expression. Contemporary designers, drawing inspiration from its distinctive features, successfully use it as a basis for creating new, striking looks. Its stylistic codes – from low waistlines to geometric shapes and decorative elements – serve as a valuable source for rethinking fashion in the context of postmodern eclecticism.

Designing authors' clothing collections based on a source of inspiration. The starting point of the new clothing collections' design process is the mood board, the main task of which is to visualise the mood and the designer's original idea for the future collection. J.E. Munk *et al.* (2020) wrote that a mood board helps to optimise the creative process and strategically direct the designer's efforts towards achieving the final goal: bringing the author's vision for the projected clothing collections into reality. Information presented by C. Eckert & M. Stacey (2000) indicated that mood boards play a leading role in the phenomenon of inspiration. N. Endrissat *et al.* (2016) noted that mood boards perform communicative functions between people, as well as providing the designer with a unique tool for generating ideas both literally and figuratively. C. Freeman *et al.* (2017) investigated the reliability and objectivity of assessing the creativity of mood boards in the field of design education. The academics emphasised that further studies on the peculiarities of creating mood boards, as well as improving methods for the objective assessment of their creativity, are relevant tasks. Within the framework of this study, the mood board not only served as a starting visualisation tool but also determined the compositional logic and associative structure of the designer's collections, which underscores the practical effectiveness of this method.

Based on the results of studying the source of inspiration – the women's costume of the 1920s – a mood board was created, which presents the concentrated authors' concept for the projected clothing collections, specifically reflecting the spirit of the "Roaring Twenties" era. Thus, the developed mood board demonstrated the main idea of the collections, namely the atmosphere of freedom, luxury, extravagance, and a variety of spectacular looks (Fig. 7).

In the process of designing collections, one of the defining tasks was the selection of compositional elements. Among these, form is of particular importance, as it functions as a primary means of visual communication in costume design. Form precisely determines the three-dimensional spatial structure of the clothing, outlines its contours and silhouette, and shapes the emotional and aesthetic perception of the composition. Rectangular and oval silhouettes were predominantly characteristic of the clothing of the analysed period. At

the same time, the line was an important compositional factor in 1920s costume, manifesting in both smooth rounded configurations and clearly defined vertical, horizontal, and diagonal directions. Embellishment, as a compositional element in costume design, serves to enhance its visual and aesthetic expressiveness. Analysis of the 1920s historical costume showed that the most common use in women's light clothing of this period was lace and fringe, while fur was prevalent in outerwear. The revealed colouristic features of the women's costume of this period are of practical interest for contemporary fashion modelling, as they can serve as a basis for selecting trim materials and colour solutions in the process of creating new collections. It was established that in the 1920s, the colour palette of the costume fulfilled not only an aesthetic but also a symbolic function, reflecting the socio-cultural characteristics of the era. Black, popularised by the Chanel brand, was established as a characteristic feature of evening wear and symbolised elegance. White was associated with purity and simplicity and was most often used in summer dresses. Saturated shades such as red, yellow, orange, and blue shaped the looks of everyday and evening wear, emphasising the dynamism and life-affirming mood of the time. The pastel palette gave the looks a sense of romance and feminine softness. At the same time, metallic colours – gold and silver – accentuated the luxury and decorative brilliance of the costume, reflecting the atmosphere of the 1920s era.

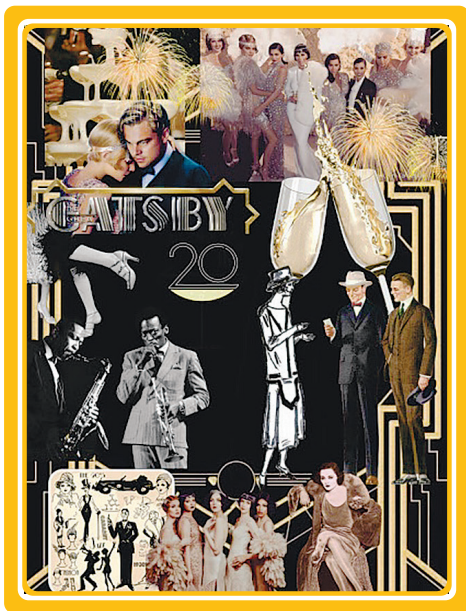


Figure 7. Mood board based on the source of inspiration

Source: developed by the authors

The results of the study of the form, silhouette characteristics, colour solutions, texture, and embellishment inherent in the source of inspiration became

the basis for creating four designer women's clothing collections, where the imaginative kinship with the authentic costume is preserved through the principles of stylisation and interpretation with elements of form and silhouette transformation. This approach allowed for the adaptation of the characteristic features of the source to contemporary design, ensuring a diversity of the created models. The main compositional element of the developed "Retro Luxury" collection (Fig. 8) is colour, the means of connection is contrast, and the main compositional principle is the semantic factor. The secondary element is form. The collection consists of five models – women's dresses of a straight silhouette and a suit – and aligns with the fashion direction of the 1920s with the addition of contemporary elements. The assortment group includes: dresses, a corset, a jacket, a waistcoat (vest), a shirt, and trousers. The main colour is black, and the accent colour is cherry-red, which is relevant for 2025. The models utilise accessories that were popular in the 1920s, namely: a reticule (small handbag), pearl jewellery, artificial flowers and feathers, and a boa. The silhouette forms of the dresses and their proportions correspond to the chosen source.



Figure 8. Sketch design project of the "Retro Luxury" collection

Source: developed by the authors

In the "Jazz and Glamour" collection (Fig. 9), lace trim was chosen as the main compositional element, symmetry as the connecting element, and imagery as the compositional principle. Colour is a secondary element of the collection. The range includes dresses, trousers, skirts, blouses, shirts and waistcoats. The collection is designed for festive occasions and successfully combines feminine images with elements of men's suits. Particularly relevant are the waistcoat with lace inserts and the shirt with puffed sleeves and a bow at the neck. The shapes of the garments and accessories, such as long gloves, boas, tiaras, lace stockings, and hairstyles, are stylised versions of corresponding elements of historical costumes from the 1920s.



Figure 9. Sketch design project of the “Jazz and Glamour” collection

Source: developed by the authors

In the “L’Art Nouveau” collection (Fig. 10), ornament was chosen as the main compositional element. The compositional principle and means of connection are imagery and rhythm. Form is a supporting element. The collection consists of outerwear, dresses, and knitted accessories, and was created with consideration for potential industrial realisation, based on a single fundamental constructional form.



Figure 10. Sketch design project of the “L’Art Nouveau” collection

Source: developed by the authors

The composition of the “Charleston” collection (Fig. 11) was built upon the combination of two compositional elements. These are, first and foremost, colour, based on the principle of nuance and contrast, and the second element is the line, based on the principle of symmetry and balance. The collection includes the following assortment: skirts, trousers, blouses, and bodysuits.

Each of the created models reflects the chosen source of inspiration – the Western European women’s costume of the 1920s – in a different way. Thus, an associative link between the chosen source of inspiration and the contemporary clothing models is clearly

traceable in the developed collections. The created models adhere to the core conceptual idea of the project, are characterised by compliance with the principles of compositional harmony, and take into account modern fashion trends. Based on the results of the research, a women’s clothing ensemble from the “Retro Luxury” collection was realised in material. The developed ensemble not only aligns with the designer’s concept but also clearly conveys it through the successfully selected compositional elements, creating a holistic and harmonious image (Fig. 12).



Figure 11. Sketch design project of the “Charleston” collection

Source: developed by the authors



Figure 12. Photo of the “Retro Luxury” ensemble
Source: developed by the authors

The sketch projects of the clothing collections and the ensemble “Retro Luxury” were tested within the framework of the All-Ukrainian competition for young fashion designers “Barvy Podillya” (Khmelnyskyi) and the 22nd International Competition “Constellation ‘Kashtan’” (Kyiv). Thus, using the same source of inspiration enables the author to creatively interpret it, producing a variety of intriguing images. The application of different compositional elements allows the designer to generate new ideas for shaping new styles and aesthetics. At the same time, the figurative solutions of each developed collection are subordinated to the chosen source of inspiration and reflect the author’s creative concept – the creation of the atmosphere of the 1920s.

CONCLUSIONS

A compositional analysis of the chosen source of inspiration – the Western European women’s costume of the 1920s – was carried out, identifying and examining its characteristic features. The main concept of the project was defined, reflecting the authors’ interpretation of the source of inspiration. Based on the analysis of the compositional features of the chosen source, a mood board was developed, encapsulating the creative concept of the designed collections – the reflection of the atmosphere of the “Roaring Twenties,” the world of dance, luxury, and extravagance.

Based on a detailed analysis of the inspirational source, the key compositional elements, techniques, and principles for designing the collections were selected. On this basis, sketch projects of women’s clothing collections of various assortments and purposes were developed, each featuring distinct artistic and compositional solutions. The use of colour contrast in the collection “Retro Luxury” made it possible to create a vivid image in the style of *The Great Gatsby*. Emphasis on lace embellishment and a restrained colour palette in the collection “Jazz and Glamour” formed

the basis of an elegant and glamorous image of a 1920s jazz party. The collection “L’Art Nouveau”, built upon the rhythm of ornaments and diversity of forms, demonstrated an artistic approach to the transformation of outerwear forms. In the collection “Charleston”, everyday looks were created through the use of fluid lines and a subtle colour palette.

The main features of the developed collections are their expressiveness and integrity, achieved by creating all models within a unified stylistic direction. The artistic and compositional solution of each collection, through the use of different forms, silhouettes, materials, colours, and details, interprets the authors’ concept in diverse ways, presenting multiple directions for its development and generating a wide range of creative ideas for new models of contemporary clothing. The obtained results provided a foundation for further scientific and practical exploration of historical costume as a source of inspiration within the context of modern fashion design. Future research may focus on an in-depth analysis of the artistic and compositional characteristics of the 1920s women’s costume in an intercultural comparative aspect, the use of digital technologies for visualising developed authors’ collections and experimentally testing compositional solutions in space, as well as exploring the possibilities of adapting the identified artistic and compositional approaches to contemporary fashion with consideration of sustainable design principles.

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REFERENCES

- [1] Agordah, F.E. (2025). Cultural heritage and fashion: Integrating traditional values into modern fashion design at Takoradi Technical University. *International Journal of Research in Education Humanities and Commerce*, 6(2), 143-165. doi: 10.37602/IJREHC.2025.6211.
- [2] Albuquerque, S., Pio, G., & Gomes, F. (2023). Fashion and visual language: A social semiotic analysis of women’s clothing in photographs from the 1920’s. *Alfa: Revista de Linguística*, 67, article number e16841. doi: 10.1590/1981-5794-e16841t.
- [3] Bagai, S. (2020). *1920s fashion: Dawn of women’s liberation*. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 7(8), 509-514.
- [4] Baigelenov, A., Shukla, P., & Parsons, P. (2025). How visualization designers perceive and use inspiration. In *CHI '25: Proceedings of the 2025 CHI conference on human factors in computing systems* (article number 1168). New York: Association for Computing Machinery. doi: 10.1145/3706598.3714191.
- [5] Behance. (2018). *1920’s. Brief history of fashion in pictures*. Retrieved from <https://www.behance.net/gallery/68039345/1920s-of-Fashion>.
- [6] Bewkes, S. (2012). NY Fashion Week fall 2012: Michael Kors. *Quintessence*. Retrieved from <https://quintessenceblog.com/ny-fashion-week-fall-2012-michael-kors/>.
- [7] Billi-Ruban, N.V., Siedoukhova, Y.V., & Kozmanko, G.Y. (2018). *Hungarian folk costume as a source of creativity for the soul clothing design*. *Light Industry*, 1, 26-33.

- [8] Chen, B. (2025). Fashion and art: Diverse possibilities in creation. *International Journal of Education and Humanities*, 18(2), 196-201. doi: [10.54097/s1azhf85](https://doi.org/10.54097/s1azhf85).
- [9] Cherevach, V. (2023). Fashion as a cultural practice: Identification by main characteristics. *Bulletin of the National Academy of Management of Culture and Arts*, 3, 88-93. doi: [10.32461/2226-3209.3.2023.289820](https://doi.org/10.32461/2226-3209.3.2023.289820).
- [10] Chuprina, N., Krotova, T., Pashkevych, K., Kara-Vasyliieva, T., & Kolosnichenko, M. (2020). [Formation of fashion system in the XX – the beginning of the XXI century](#). *Fibres and Textiles*, 4, 48-57.
- [11] De Angelis, D. (2019). [1920s brocade opera coat reflecting feminism & the “Modern girl”](#). *Fashion Research Collection*, 1-12.
- [12] Ditkovska, O., Lushchevska, O., & Bukhantsova, L. (2022) Cape: Historical past and fashionable present. *Bulletin of Khmelnytskyi National University*, 4(311), 87-93. doi: [10.31891/2307-5732-2022-311-4-87-93](https://doi.org/10.31891/2307-5732-2022-311-4-87-93).
- [13] Eckert, C., & Stacey, M. (2000). Sources of inspiration: A language of design. *Design Studies*, 21(5), 523-538. doi: [10.1016/S0142-694X\(00\)00022-3](https://doi.org/10.1016/S0142-694X(00)00022-3).
- [14] Endrissat, N., Islam, G., & Noppeney, C. (2016). Visual organizing: Balancing coordination and creative freedom via mood boards. *Journal of Business Research*, 69(7), 2353-2362. doi: [10.1016/j.jbusres.2015.10.004](https://doi.org/10.1016/j.jbusres.2015.10.004).
- [15] Freeman, C., Marcketti, S., & Karpova, E. (2017). Creativity of images: Using digital consensual assessment to evaluate mood boards. *Fashion and Textiles*, 4, article number 17. doi: [10.1186/s40691-017-0102-4](https://doi.org/10.1186/s40691-017-0102-4).
- [16] Holovenko, T.M., Kozar, O.P., Bondarchuk, Yu.S., & Shovkomud, O.V. (2023). [History of costume: Cultural heritage of the peoples of the world](#). Lutsk: Lutsk National Technical University.
- [17] Kertakova, M. (2022). Analysis of transfer and application of the conceptual dimensions of the historical costume from the XIX century in the practice of the fashion designers of women’s fashion in the beginning of the XXI century – year 2003 (fall-winter collections). *Knowledge International Journal*, 54(5), 835-841. doi: [10.35120/kij5405835k](https://doi.org/10.35120/kij5405835k).
- [18] Krasniuk, L., & Troyan, O. (2020). [Designing the author’s collection of women’s clothing with the use of painting as the source of inspiration](#). *Fibres and Textiles*, 3, 97-102.
- [19] Kyiashko, M.S., Nikolaieva, T.V., & Nikolaieva, T.I. (2018). [Study of the artistic and compositional characteristics of the costume of the Trypillian culture in the design of modern clothing collections](#). *Technology and Design*, 2(27), 1-11.
- [20] Lozynska, Kh. (2011). [Youth costume in European fashion of the 1990s](#). *Bulletin of the Lviv National Academy of Arts*, 21, 94-99.
- [21] Melnyk, M. (2019). [Historical costume as a source of inspiration for stylists, fashion artists and clothing designers](#). *Art Education: Methodology, Theory, Practice*, 1, 162-170.
- [22] Mete, F. (2006). The creative role of sources of inspiration in clothing design. *International Journal of Clothing Science and Technology*, 18(4), 278-293. doi: [10.1108/09556220610668509](https://doi.org/10.1108/09556220610668509).
- [23] Mitra, R. (2012). Reem Acra RTW Fall 2012. *Women’s Wear Daily*. Retrieved from <https://surl.lu/qlzwh>.
- [24] Munk, J.E., Sorensen, J.S., & Laursen, L.N. (2020). Visual boards: Mood board, style board or concept board? In *Proceedings of the 22nd international conference on engineering and product design education*. Aalborg: Aalborg University. doi: [10.35199/EPDE.2020.47](https://doi.org/10.35199/EPDE.2020.47).
- [25] Murphy, D. (2011). [Dialogues between past and present: Historic garments as source material for contemporary fashion design](#). *V&A Online Journal*, 3, 1-13.
- [26] Omwami, A. (2024). [From inspiration to garment ideas. Elucidating the threads of inspiration in apparel design ideation](#). (Academic dissertation, University of Helsinki, Helsinki, Finland).
- [27] Omwami, A., Lahti, H., & Seitamaa-Hakkarainen, P. (2020) The variation of the idea development process in apparel design: A multiple case study. *International Journal of Fashion Design, Technology and Education*, 13(3), 341-351. doi: [10.1080/17543266.2020.1817573](https://doi.org/10.1080/17543266.2020.1817573).
- [28] Papeta, H. (2020). Ethnic motives in designer collections of clothing by Lyudmyla Semykina. *Demiurge Ideas Technologies Perspectives of Design*, 3(2), 241-248. doi: [10.31866/2617-7951.3.2.2020.220083](https://doi.org/10.31866/2617-7951.3.2.2020.220083).
- [29] Pashkevych, K., Simak, A., Chuprina, N., Malko, A., & Petrova, O. (2023). [Street fashion as a creative source for developing modern youth clothing collections](#). In *Current problems of modern design* (pp. 233-235). Kyiv: Kyiv National University of Technologies and Design.
- [30] Ramzi, L. (2024). A 1920s fashion history lesson: Flappers, the bob, and more trends that made the roaring twenties roar. *Vogue*. Retrieved from <https://www.vogue.com/article/1920s-fashion-history-lesson>.
- [31] Reddy, K. (2020). 1920-1929, 20th century, decade overview. *Fashion History Timeline*. Retrieved from <https://fashionhistory.fitnyc.edu/1920-1929/>.
- [32] Sapfirova, N., Pasko, O., & Chemberzhi, D. (2024). The impact of history and culture on modern fashion and accessories design. *Theory and Practice of Design*, 3(33), 214-225. doi: [10.32782/2415-8151.2024.33.23](https://doi.org/10.32782/2415-8151.2024.33.23).
- [33] Shevniuk, O.L. (2008). [History of the costume](#). Kyiv: Knowledge.

- [34] Sun, B. (2023). The innovative application and value of traditional cultural elements in modern clothing design. *Frontiers in Art Research*, 5(6), 106-109. doi: 10.25236/FAR.2023.050620.
- [35] The Kyoto Costume Institute. (2023). *Fashion history from the 18th to the 20th century*. Cologne: Taschen.
- [36] Ugrekheldze, I. (2024). Vintage revival: Exploring nostalgia and retro aesthetics in contemporary fashion. *Interdisciplinary Cultural and Humanities Review*, 3(2), 35-44. doi: 10.59214/cultural/2.2024.35.
- [37] Vogue Ukraine. (2020). *The Trypillia culture: BEVZA SS 2021 collection*. Retrieved from <https://vogue.ua/article/fashion/brend/tripolskaya-kultura-kollekcii-bevza-vesna-leto-2021-42052.html>.
- [38] Yuan, H. (2023). The innovation process in fashion design. In *Proceedings of the 2023 2nd international conference on public culture and social services* (pp. 276-281). Lombardia: Domus Academy. doi: 10.2991/978-2-38476-130-2 34.

Дизайн-проектування колекцій одягу на основі трансформації форм жіночого костюма 20-х років ХХ століття

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Анотація. Актуальність дослідження обумовлена необхідністю пошуку нових креативних творчих прийомів створення авторських колекцій одягу, які відрізняються художньою виразністю, високими естетичними властивостями та потужним емоційним змістом. Метою дослідження була розробка художніх проєктів колекцій жіночого одягу за творчим джерелом – жіночим костюмом 20-х років ХХ ст. Методи дослідження включали вивчення творчих джерел, що передбачало аналіз силуетів, форми, характерних ліній, пропорцій, колірної рішення, фактури, оздоблення, аксесуарів та доповнень. Метод морфологічного аналізу, застосований у роботі, передбачав опрацювання нових ідей шляхом переосмислення та трансформації джерела натхнення у форми сучасного одягу. Дослідження передбачало вибір та стилізацію композиційних елементів формоутворення, реалізацію проєкту у матеріалі та апробацію проєктних рішень в умовах конкурсів дизайнерів одягу. В результаті виконано художньо-композиційний аналіз джерела натхнення, визначено основні форми, силуети, пропорції, оздоблення та кольори обраного

джерела. Сформовано основну ідею проєкту, яка відображає авторський погляд на джерело натхнення. Створено mood board, у якому сконцентрована авторська концепція проєктованих колекцій. Розроблено чотири видозміни творчих колекцій сучасного жіночого одягу за мотивами одного творчого джерела натхнення – жіночого костюма 1920-х років. Виготовлено жіночий ансамбль та здійснено його показ в рамках конкурсів дизайнерів одягу. Практична цінність дослідження полягала у розробленні художньо-композиційних основ проєктування сучасного жіночого одягу за мотивами історичного костюма як джерела натхнення

Ключові слова: історичний костюм; художній образ; mood board; джерела натхнення; творча концепція; трансформація творчого джерела



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Visual communication and user experience design in shaping the digital museum environment: Theoretical and practical aspects

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Abstract. The relevance of this study is conditioned by the need to develop new approaches to designing digital museum spaces that would combine humanitarian and technological knowledge, meet contemporary audience needs, and contribute to the development of an inclusive, accessible, and culturally rich experience. The purpose of the study was to comprehensively analyse the role of visual communication and user experience design in the development of a contemporary digital museum space, and to identify the main concepts, principles, and approaches to creating an effective museum experience in a digital environment. To achieve this goal, the author used structural and functional, comparative, historical methods, and methods of design analysis, semiotics of visual images, principles of architectonics of user experience design and interface usability. The basic principles of interface organisation were defined, contemporary approaches to creating interactive and inclusive user experience were analysed, and the practical significance of implementing innovative design solutions in the museum sphere was outlined. It was determined that the digital museum environment is formed at the intersection of cultural studies, art history, information technologies, and design communications. Successful examples of digital museums and online archives where user experience design and user interface design transform the way cultural heritage was perceived were analysed. Based on an analysis of successful examples of digital museums (Google Arts & Culture, British Museum, Museum of Modern Art) user experience design and user interface design have been found to have a significant impact on the accessibility, personalisation, and emotional perception of cultural content. Theoretical and methodological approaches to the interaction of user experience design and visual communication in the museum environment were formulated, identifying new formats of interface visualisation that can activate interest in a cultural product in the digital sphere. The research can be used by specialists in the field of museum business, graphic design, interface development, and digital humanities to create innovative exhibition practices

Keywords: UI-UX design; design interactions; use of AR/VR; multimedia; graphic design; human-centred design

INTRODUCTION

In the 21st century, museums are becoming not only repositories of tangible and intangible assets, but also active participants in the global cultural dialogue. Digitalisation permeates all spheres of public life, and the museum business is no exception. Under the influence of the digital revolution, museums are changing approaches to exhibition activities, presentation, and interpretation of cultural heritage, forming a new concept – the digital museum environment. This

environment is not limited to creating virtual copies of exhibits or online archives, but involves a deep integration of advanced technologies, interface solutions, visual communication and UX-design (User Experience Design), which together provide a qualitatively new user experience. The user expects from the digital museum not only high-quality visualisation of exhibits, but also the opportunity to interact with them, get additional information, participate in virtual tours, quests,

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interactive lectures, etc. The relevance of the research is conditioned by the need for effective methods of organising museum content, creating an intuitive interface that provides flexible, deep, and personalised interaction with museum content, regardless of the physical presence in the institution.

An analysis of previous studies shows that UX design issues in the cultural context have been actively developed since the early 2000s in connection with the digitalisation of cultural institutions. In the field of visual communication, G. Kress & T. van Leeuwen (2020) made a significant contribution by proposing a socio-semiotic approach to the analysis of visual images, emphasising their ability to construct meaning in digital media. Their ideas open up new perspectives in the interpretation of museum expositions: visual elements not only inform, but also develop the cultural identity of the institution, appealing to the context, experience, and expectations of the audience. The digital museum space is increasingly seen as a hybrid environment where physical, virtual, and augmented experience components are combined. R. Parry & V. Dziekan (2021) focused on the multichannel nature of museum communication, pointing out the growing role of multimodality and emotional saturation of digital projects. They also stressed the need to develop storytelling strategies that engage the user in active interaction rather than passive consumption of information.

Despite a significant number of international scientific publications, the issues of integrating UX design into the museum sphere, in particular in the Ukrainian context, remain insufficiently covered. E. Mkpojiogu & O.E. Okeke-Uzodike (2022) focused on emotional user interaction, which proposed a multi-layered UX design model that considers both cognitive and affective aspects of user interaction. This approach is particularly valuable for the museum environment, where the effectiveness of a digital platform is evaluated not only by its functionality, but also by its depth of engagement and cultural significance. In their research, Q. Zhuang *et al.* (2022) conducted a comprehensive analysis of the role of UX navigation in virtual museums, highlighting it as one of the main conditions for an effective digital user experience. The researchers noted that a well-thought-out navigation structure, including a clear virtual space architectonics, a logical sequence of interactions, and a feedback system, is crucial for maintaining user orientation in a digital environment. Special attention was paid to microinteractions – short, intuitive actions (for example, highlighting an object when hovering or playing audio) that form an emotional connection with content and increase engagement. In addition, the researchers emphasised the importance of personalised interfaces that consider individual needs, interests, and the level of training of the user.

At the Ukrainian scientific level, the contribution of V.O. Volynets (2021) is important, which emphasised

the need to implement design thinking in museum practice. According to the researcher, a contemporary museum should consider the user not as a passive observer, but as an active participant in the cultural process. She focused on changing the role of design – from a decorative or technical element to a strategic tool for cultural communication. The analysis by Y.O. Kachkovska (2024), which examined the digital transformation of museum communication in Ukraine through the prism of human-centredness, was valuable for this study. The researcher emphasised the need to overcome the communication barrier between the cultural institution and the visitor, developing ideas of inclusivity, accessibility, and personalisation. The Polish researchers A. Kobylska & M. Dzieńkowski (2024), who applied the SUS (System Usability Scale) methodology and eye-tracking in their study of European virtual museums, was of methodological importance. They concluded that a clear visual hierarchy, navigation logic, and placement of information blocks not only improve usability, but also contribute to a deeper emotional immersion in the museum's narrative.

Considerable attention in the analysis of contemporary research was paid to multimodal and multisensory experiences, which significantly enriches the user's interaction with digital museum content. E. Pietroni (2025) argued that an effective digital museum environment should provide not only visual perception, but also audio and tactile interaction, contributing to a more complete emotional and cognitive immersion in a cultural narrative. He noted that the use of augmented reality (AR) and 3D sound technologies allows creating a "presence effect" even in a remote format, which is especially important for the representation of complex objects of material culture and the reconstruction of their habitat. The researcher also emphasised the importance of inclusive design, which involves engaging users with different physical abilities by expanding the sensory range of the experience.

In turn, J. Hutson & T. Olsen (2021) pointed to the risks associated with excessive technologisation of the museum business. They stressed that without a clear humanitarian framework, technological innovations can lead to superficial or fragmentary visualisation that loses touch with the cultural context of artefacts. The researchers advocated integrating technology with a critical narrative: each digital element should be subordinated to museum content, serving as a means of deeper interpretation, not just entertainment. In their concept, the museum acted not as a platform for demonstrating digital effects, but as a mediator of cultural knowledge, where UX design should provide not only convenience, but also the significance of interaction.

Thus, despite the growing interest in UX design in the museum context at the global level, in the Ukrainian scientific community, this topic still remains on the periphery of academic discourse. Existing research mostly

covers aspects of visual culture or digital humanities in fragments. Comprehensive interdisciplinary approaches that combine UX design, UI design (User Interface), and visual communication in a museum environment are rare. The purpose of the study was to comprehensively analyse the impact of visual communication and UX design on the evolution of the digital museum space, and to identify the main concepts, principles, and practical approaches that ensure the development of an effective and inclusive museum experience.

MATERIALS AND METHODS

In the course of the research, a set of methods of scientific knowledge was used, which helped to systematically cover the problem of UX design in the museum environment and ensure scientific reproducibility of the results. The main methods were content analysis, comparative analysis, case study, expert assessment, and observation methods. The choice of these methods was conditioned by the interdisciplinary nature of the study, which covers the fields of design, digital technology, museum business, and inclusive communication. Content analysis was used to study in detail the structure, navigation, functional solutions, and visual design of digital interfaces of museum platforms. The comparative analysis method was used to evaluate the effectiveness of UX solutions in various institutional and cultural contexts. The case study method allowed for an in-depth analysis of each specific example of digital experience within the selected museum platforms, while the expert assessment method helped to critically analyse the level of compliance of interfaces with current international standards of digital accessibility and inclusion. The method of observation consisted in empirical interaction with user interfaces in an online environment with the capture of key characteristics of UX design.

The study took place in several consecutive stages. At the first stage, the purpose and objectives of the study were formulated, which provided for the analysis of UX design of museum platforms in the context of inclusivity and digital transformation. The second stage consisted of investigating theoretical sources that included scientific papers, industry reports, methodological recommendations, and guides from international organisations. The third stage covered the selection of cases for analysis. The fourth stage involved a detailed content analysis of each case according to unified criteria. The fifth stage consisted of a comparative analysis of the results obtained, and the final stage was the generalisation of conclusions and determination of effective UX design strategies.

The analysis included three cases of digital museum platforms, in particular, Google Arts & Culture (n.d.), The British Museum (n.d.), Museum of Modern Art (MoMA, n.d.). The criteria for selecting cases were the availability of an interactive digital platform, an innovative approach to UX design, the implementation

of inclusive solutions, and representativeness in the international or local cultural space. The analysis of cases was carried out according to a number of criteria, in particular, the level of intuitive navigation, adaptability of the interface to various devices, the presence of inclusive elements (contrast, subtitles, sign language, accessibility for people with visual impairments), aesthetic integrity of visual solutions, the ability to personalise the user experience and the degree of technological innovation (use of AR (augmented reality), VR (virtual reality), 3D (three-dimensional) interactive maps, multimedia).

A number of materials were used in the study, including digital interfaces of museum sites, visual documents, screenshots, and methodological materials from open sources. A separate place was taken by official recommendations and guides, in particular, the Smithsonian Digital Accessibility Guidelines (Smithsonian Institution, n.d.) and WCAG 2.1 (W3C Recommendation, 2025). UX design development practices from leading agencies such as IDEO (n.d.) and Nielsen Norman Group (Neussesser, 2023) were also applied. The study was partly based on the methods of other researchers, in particular, the principles of Design Thinking, User-Centred Design, and Agile UX frameworks that were adapted to the needs of analysing digital museum services (Norman, 2013; Gothelf & Seiden, 2013). Official museum information resources, open institutional reports, analytical platforms Google Arts & Culture (n.d.) and Europeana (n.d.), and specialised media and publications in the field of museum digital strategies were actively used to collect primary information.

Thus, the research methodology was formed at the intersection of empirical observations, theoretical propositions, and applied analysis, which ensured its repeatability and scientific validity. The use of qualitative methods within the framework of an interdisciplinary approach helped to comprehensively cover the subject of research, adapt existing research tools to the specifics of digital museum services, and build a scientifically based strategy for analysing UX design. The existing methodological framework can be used for further research in the field of digital transformation of cultural institutions, in particular, in the context of inclusive design and interactive communication.

RESULTS AND DISCUSSION

The results of the study showed that the digital museum environment is formed at the intersection of several fields of knowledge and practices, including cultural studies, art history, information technology, graphic and interface design. Visual communication in this context is not only a matter of aesthetics, but also a means of structuring information, increasing its accessibility, and creating an emotional connection with the user. Digital museums actively use the principles of identity, colouristics, typography, animation, infographics, interactive

visualisations to form a unique style and enhance the content of expositions. UX design provides logical and easy navigation, adaptability to different devices, personalisation of content, and consideration of the needs of different groups of users, including people with disabilities. An important aspect is also the integration of elements of gamification, social interaction, and feedback tools that help to increase visitor engagement and create a sustainable interest in cultural heritage.

As a result of the analysis, key features of UX solutions used in digital museums to improve user interaction were identified. The study covered three examples: Google Arts & Culture, the British Museum’s virtual platform, and MoMA’s digital strategy. These cases allowed analysing different approaches to visualisation, navigation, accessibility, and personalisation of the user experience. Google Arts & Culture is characterised by a high level of technological complexity and versatility. The platform integrates a responsive design that allows users to comfortably view content from any device. An important UX element is personalised recommendations based on the user’s behavioural analysis. The platform also offers high-quality 3D models, interactive exhibitions, and augmented reality features that promote an immersive experience. However, despite these advantages, the interface of Google Arts & Culture is sometimes perceived as technocratic and devoid of emotional depth, because all museums are presented in a standardised form without considering local flavour or institutional identity.

The British Museum takes a slightly different approach. The main focus is on chronological navigation – users can explore exhibits in a historical context. The platform has a simple, logical structure that works well in an educational format. However, the functionality in terms of personalisation and interactivity is limited: there are no advanced AR/VR tools, navigation is not always intuitive, and the visual design looks outdated. However, the presentation of information is balanced and meaningful, which contributes to intellectual

involvement. MoMA focuses on visual simplicity and aesthetics. The interface of the digital platform is minimalist, which allows focusing on the exhibits. An important UX feature is the absence of unnecessary visual elements, which emphasises the focus on contemporary art as such. However, MoMA’s user experience is less profound in terms of content – the platform does not provide detailed contextualisations or interactive features that could enhance the cognitive component. Personalisation is only partially implemented, and inclusivity functions are limited.

Digital museums use a variety of UX design tools that aim to facilitate navigation, improve access to information, immerse the user in cultural content, and be inclusive. These solutions not only increase user satisfaction, but also allow museum institutions to expand their audience. Among the innovative international examples, it is also worth mentioning the VirtuWander platform presented by Z. Wang *et al.* (2024). It uses artificial intelligence to personalise museum routes and content, which significantly improves the user’s cognitive immersion and reduces access barriers. The system adapts to the user’s level of interest, considers their emotional reactions, and offers relevant content that opens up new horizons in the humanitarian application of AI technologies. Another important example is the MEUX (Museum Exhibition User Experience) model developed by E. King *et al.* (2022) at the University of Warwick. This model focuses on matching curators’ expectations with actual behavioural patterns of visitors. MEUX emphasises the need for interdisciplinary collaboration between designers, curators, and audience representatives to create more relevant and flexible formats for museum interaction. It also draws attention to the importance of testing hypotheses in the UX design process and dynamically configuring the interface according to use cases. To better understand exactly how UX tools are implemented in digital museum environments, Table 1 summarised key solutions, their functionality, and implementation examples.

Table 1. UX solutions in digital museums

UX tool	Functionality	Implementation example
Responsive design	Optimisation of the interface for different devices (smartphones, tablets, PCs).	Google Arts & Culture, MoMA.
Interactive navigation	Ability to quickly navigate the structure of a website or exhibition.	British Museum (Virtual Tour).
Search by filters	Narrowing the selection of exhibits by topic, time, region, etc.	British Museum.
AR/VR solutions	Virtual tours, 3D models of exhibits, immersive experience.	Google Arts & Culture.
Inclusivity	Contrast, fonts, subtitles, voice guidance, and sign language video guides.	Mystetskyi Arsenal, Smithsonian.

Source: compiled by the author based on the Google Arts & Culture Review (n.d.), MoMA (n.d.), The British Museum (n.d.), Smithsonian Institution (n.d.), Mystetskyi Arsenal... (n.d.)

When discussing these results in a broader context, it is worth referring to the study by S. Capece *et*

al. (2024), where it was established that a critical factor for successful UX in the cultural sphere is the possibility

of an individual user experience. This is particularly well implemented in Google Arts & Culture, which uses machine learning algorithms to generate recommendations based on user interests and behaviour. Simultaneously, in the cases of the British Museum and MoMA, individualisation does not play a significant role, which limits the effectiveness of UX solutions. Another study by S. Chang & J. Suh (2025) highlighted the importance of immersive technologies (AR/VR) in creating an emotional connection between the user and cultural content. This allows tracing a certain discrepancy between theoretical conclusions and practical applications: Google Arts & Culture actively uses these tools, while in MoMA and the British Museum they are almost not used. This indicates a different degree of technological integration in the digital strategies of cultural institutions. One of the important areas of development of virtual museums is interactivity and gamification, which open up new opportunities for attracting an audience, ensuring not only passive consumption of information, but also active participation of the user in the learning process. As indicated by E. Nofal *et al.* (2020), gamification and visual narratives significantly increase the involvement of young people in historical content. This was also confirmed in the current analysis: platforms that use immersive approaches (for example, Google Arts & Culture) showed higher user interaction rates. In addition, the results correlate with the findings of Y. Avni *et al.* (2025), which emphasised the need to comply with the principles of inclusivity – including for users with disabilities, which is the basis of contemporary UX design standards.

Inclusivity requires separate consideration, as it determines the ability of a virtual museum to provide equal and comfortable access to content for users with different levels of digital literacy, cognitive and sensory characteristics, and taking into consideration the linguistic and cultural diversity of the audience. In many Western studies, this aspect is mentioned in passing or in fragments. For example, in the paper by X.T. Zhu *et al.* (2020), the focus was primarily on visual accessibility, while other needs, such as subtitles, language support, or adaptation for visually impaired people, remained out of focus. Current analysis has shown that inclusivity remains a weak point even in leading museums, despite the importance of this characteristic for the digital space. Thus, the results of the study confirmed global trends in the field of UX design of digital museums, but also revealed a number of challenges. Among them – lack of emotional involvement, limited inclusivity, weak personalisation in most cases (except for Google Arts & Culture). As noted by N. Buniak (2022), the development of an inclusive environment is a systematic process that involves specially organised interaction of all participants, and therefore, requires a deeper understanding in the digital context of museum communication.

Designing a museum interface begins with studying the target audience, its expectations, behavioural patterns, and technical capabilities. Contemporary approaches to UX modelling are based on the principles of User-Centred Design (UCD), when all decisions are made considering the needs of the user. Design Thinking, a creative approach that combines research, ideation, prototyping, and testing solutions in a real-world environment, also plays an important role. Special attention should be paid to the adaptability of the digital museum environment to various platforms – desktops, tablets, smartphones, VR/AR devices. The Mobile-first strategy is becoming more relevant, as most users interact with museums through mobile devices (Chuenchaichon *et al.*, 2024). This requires special attention to optimising interfaces, simplifying navigation, and providing quick access to the main content.

The process of designing a museum interface is multi-faceted and consists of several key stages that provide a comprehensive approach to creating a high-quality and inclusive digital museum experience:

1. Audience research and analysis – identifying target groups of users based on their age, cognitive, technical, and cultural characteristics; conducting interviews, surveys, and behavioural patterns to identify needs, expectations, and potential barriers to using a digital museum.
2. Investigation of the context and content of the museum – an in-depth analysis of the thematic and cultural content of the exhibition, and the technical limitations of the platform and user devices.
3. Formulation of the interface concept – development of information architecture, definition of basic usage scenarios, selection of a visual communication style that corresponds to the museum's identity.
4. Prototyping – creation of low-level (wireframe) and high-level interface prototypes with the inclusion of interactive and inclusive elements.
5. Testing and iteration – conducting usability tests, collecting and analysing feedback, and making adjustments to improve the quality of the user experience.
6. Implementation and support – integration of the interface into the museum's digital platform, monitoring performance, updating considering changes in technologies and user requests.

In the practice of creating digital museum platforms, several UX design methodologies with different accents are used: User-Centred Design – a systematic approach involving users at all stages to create the most relevant and user-friendly interface; Design Thinking – an iterative creative process that promotes rapid generation of ideas and hypothesis testing; Agile UX – integration of UX principles into flexible development methodologies, which ensures prompt response to changes. These methodologies complement each other, and the choice of the optimal one depends on

the specific project goals and audience characteristics (Lechner & Banakh, 2019). For a better understanding of the features of each of the approaches in designing UX museum digital platforms, their comparative analysis is given. Table 2 presented the main characteristics,

advantages, and disadvantages of methodologies, and the areas of their most effective application. This systematic approach allows choosing the optimal strategy for modelling the user experience, depending on the project goals and audience specifics.

Table 2. Characteristics of methodologies			
Methodology	Main features	Advantages	Disadvantages
User-centred design	Active user engagement at all stages of development.	High relevance and user-friendliness of the interface.	High resources for research and analysis.
Design thinking	Iterative, creative process: empathy, ideation, prototyping, testing.	Promotes innovation and flexibility of approach.	Less structured, requires more time to experiment.
Agile UX	Integration of UX into flexible development cycles, close cooperation with developers.	Fast adaptation to changes, continuous improvement of the product.	Lack of a complete concept at the beginning requires gradual development.

Source: compiled by the author based on D. Norman (2013), J. Gothelf & J. Seiden (2013), F. Tosi (2020)

This systematic approach allows to create museum digital platforms that are not only aesthetically pleasing, but also functional, intuitive, and accessible to a wide range of users. Especially important is the adaptability of the interface to different devices, and the introduction of inclusivity principles that ensure equal access to cultural heritage. After defining the key methodologies and stages of user experience design, it is important to pay attention to the role of visual communication in digital museums, as it is not only convenience and functionality, but also aesthetic appeal that enhances user interaction with the exhibition. Visual elements help to create a unique atmosphere, deepen cultural immersion, and contribute to a better perception of museum content.

Visual communication in digital museums covers a wide range of tools: from developing a unique identity to creating interactive maps, infographics, animations, video and audio-visual materials. It is important that the visual style is not only attractive, but also corresponds to the theme of the museum, emphasises its uniqueness, and contributes to a deeper immersion in the cultural context. The semiotic approach allows analysing how visual images, colours, and compositional solutions affect the interpretation of expositions, form associations, and evoke an emotional response (Tormahova, 2023).

In practice, successful cases of digital museums have demonstrated a close integration of UX and UI design. The analysis confirmed the importance of accessibility, in accordance with the WCAG 2.1 standards, which were used as criteria in evaluating interface solutions (W3C Recommendation, 2025). For example, the Google Arts & Culture platform, which, like other cases, was evaluated according to the principles of IDEO (n.d.) and Nielsen Norman Group (Neusesser, 2023), offers users interactive tours of museums around the world with a high level of usability, intuitive navigation, 3D navigation, the ability to save favourite exhibits and share impressions on social networks (Fig. 1).

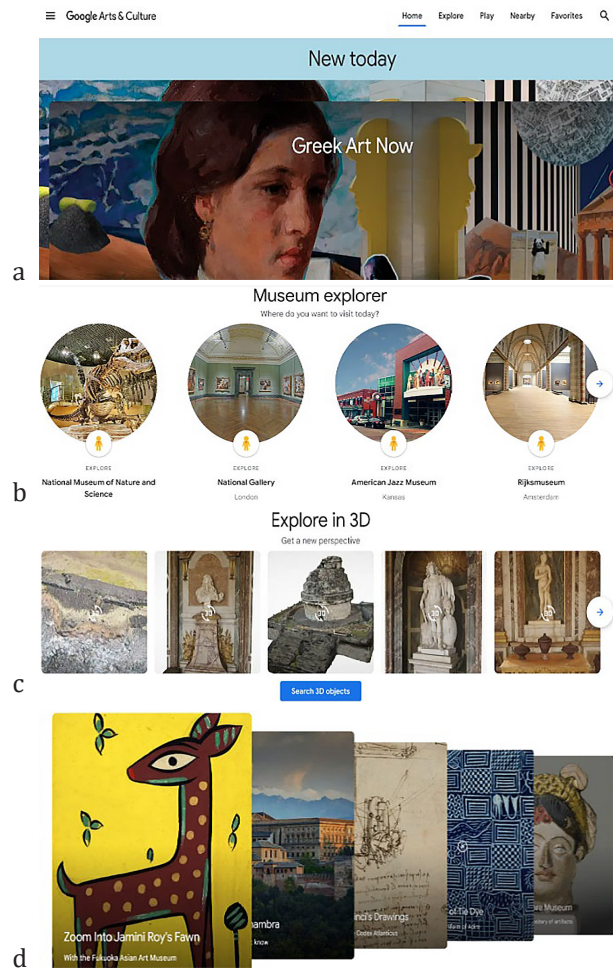


Figure 1. Google Arts & Culture

Note: a – usability; b – intuitive navigation; c – 3D navigation; d – personalised route

Source: Google Arts & Culture (n.d.)

A virtual tour of the British Museum is characterised by a convenient ability to personalise the route with a flexible category structure, the ability to quickly find the necessary information using filters and search (Fig. 2).

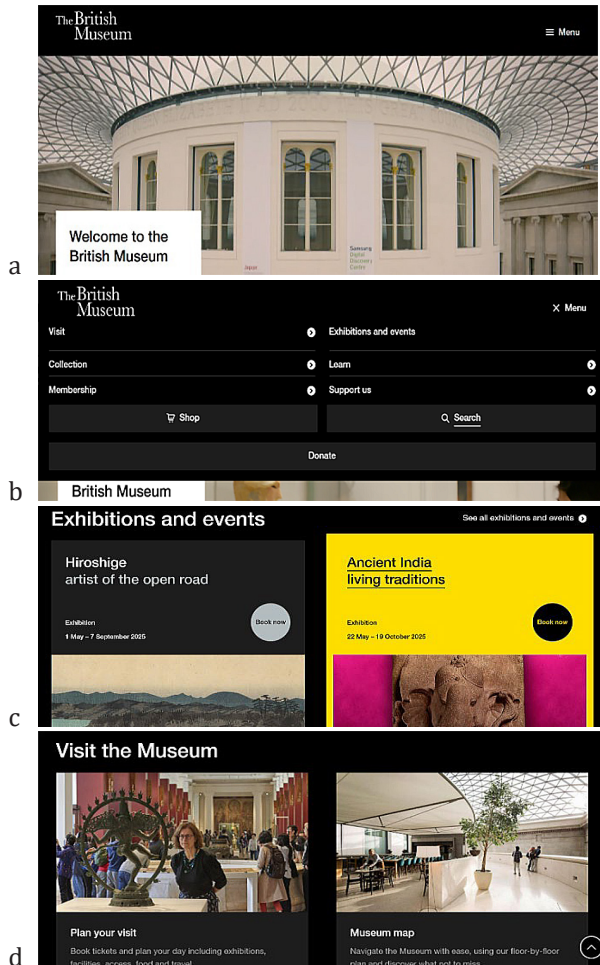


Figure 2. British Museum

Note: a – visual minimalism style; b – search filter; c – category structure; d – 2D navigation

Source: The British Museum (n.d.)

The MoMA collection is implemented in the style of visual minimalism, which helps to focus attention on the exhibits, while providing easy and fast access to additional materials. An important trend is the use of infographics, AR/VR technologies, and animations that allow creating an emotional impact on the visitor, immerse them in a virtual environment, and model new scenarios for interaction with cultural heritage (Fig. 3). For example, AR applications allow “animating” exhibits, displaying them in the context of historical events, and visualising complex processes or phenomena. VR expositions offer the opportunity to visit inaccessible or destroyed objects, see them in different historical periods, take part in virtual excursions, quests, and game scenarios (Pietroni, 2025).

Personalisation of the experience is becoming an increasingly important component of the digital museum environment. Based on the use of artificial intelligence and behavioural data analysis, museums can offer individual routes, recommendations based on interests, browsing history, and time spent near exhibits. This

increases engagement, promotes deeper immersion in the topic, and creates a sense of uniqueness of the experience (Parry & Dziekan, 2021). Inclusivity is another key principle of contemporary UX design in the museum sphere. It involves creating interfaces that are accessible to people with different physical and cognitive characteristics. Among the solutions are contrast adaptation, the use of large fonts, providing voice support, subtitles, support for sign languages, and the ability to customise the interface according to individual user needs.

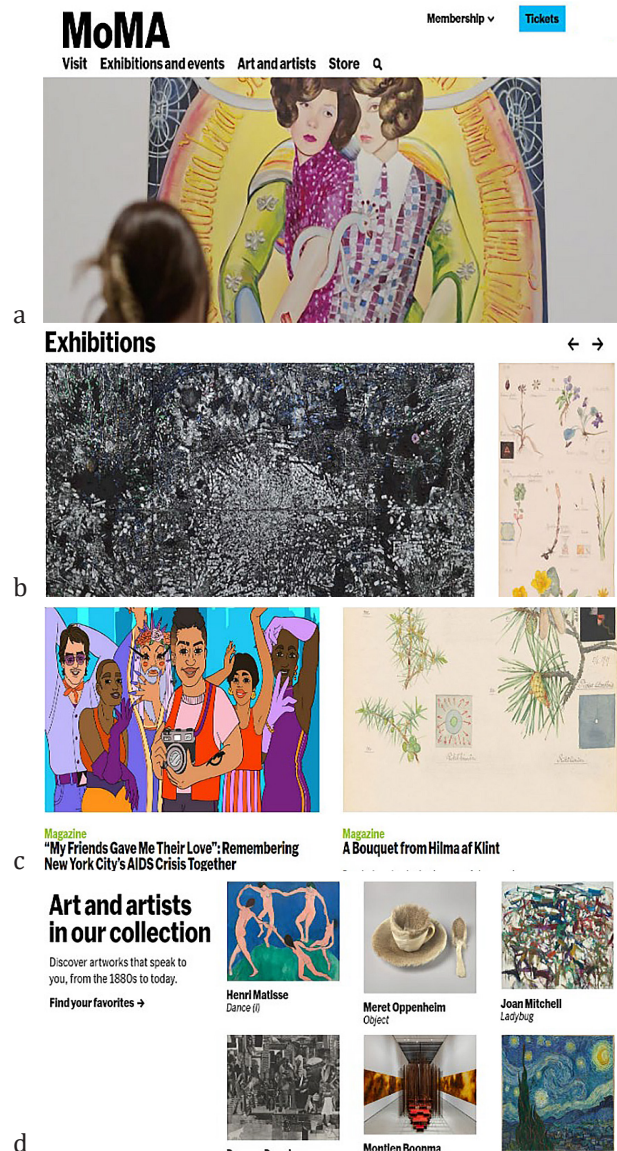


Figure 3. Museum of Modern Art (MoMA)

Note: a – visual minimalism styles; b – use of infographics; c – use of animations; d – use of AR/VR technologies

Source: MoMA (n.d.)

Successful examples of such practices were demonstrated by the world’s leading museums and digital platforms, which were analysed in the current study.

The British Museum actively implements the principles of Universal Design: online expositions are accompanied by text descriptions, have an adaptive interface, zoom support, subtitles for video materials and compatibility with screen readers. MoMA offers intuitive digital tours, sign language video content, and custom contrast and font settings for visually impaired people. These tools were created with the involvement of inclusion experts and considering the needs of different categories of users. The Google Arts & Culture digital platform provides access to thousands of museum exhibits from around the world, providing the ability to zoom in on high-quality images, read accompanying text in large font, translate into different languages, and virtual travel with interactive navigation – all of which makes art closer for people with different physical or cognitive characteristics.

The Mystetskyi Arsenal in Ukraine is actively developing digital projects, offering virtual exhibition halls with 3D modelling of expositions, interactive maps, and multimedia guides that allow diving deeper into the cultural context (Mystetskyi Arsenal..., n.d.). Special attention is paid to adapting content for different age groups and inclusivity, in particular, creating audio guides for people with visual impairments and gesture support for people with hearing impairments. In addition, museums such as the Metropolitan Museum of Art (n.d.) in New York and the Victoria and Albert Museum (n.d.), implement innovative solutions, including VR tours, interpretation of exhibits using augmented reality, and personalised recommendations of expositions based on the user's interests.

Notably, the introduction of contemporary UX solutions in the museum sphere requires not only technical knowledge, but also a deep understanding of the cultural context, specifics of exhibits, values and expectations of the target audience. It is important to ensure a balance between innovation and authenticity, to prevent the loss of content or simplification of complex cultural phenomena. The successful integration of UX design and visual communication allows museums to overcome the barriers of time, space, social and physical constraints, creating an inclusive, dynamic and exciting space for all categories of visitors. Separately, it is worth noting the role of UX design in building trust in the digital museum. Intuitive, transparent, user-friendly interface, clear structure, quick access to information, the ability to get feedback, support for different languages, adaptation to user needs – all this contributes to increasing loyalty, creating a positive image of the museum and increasing its competitiveness in the global market.

Visual communication, in turn, allows creating a unique visual narrative that enhances the content of the exhibition, forms an emotional connection with the visitor, and contributes to a deeper understanding of cultural phenomena. The use of advanced visual technologies – from 3D modelling to generative graphics,

from interactive maps to animated infographics – opens up new opportunities for presenting complex historical or artistic topics, making them accessible, understandable, and engaging for a wide audience. Equally important is the issue of sustainability and security of the digital museum environment. Protecting personal data, ensuring the stable operation of platforms, regularly updating content, maintaining high standards of ethical interaction – all this is the key to the long-term success of digital museums, their ability to adapt to the challenges of the time, and meet the expectations of society.

Thus, contemporary UX solutions and visual communication not only expand the possibilities of museums in the digital environment, but also contribute to creating a deeper and more emotionally rich experience for visitors. However, these processes cannot be isolated or purely technical – they must be considered in a broader socio-cultural context. As digital transformation spans more and more areas of public life, the museum industry is also actively looking for effective solutions to improve audience engagement. In this context, an integrated approach to the implementation of UX design and visual communication is of particular importance, which allows not only to modernise museum practices, but also to transform the very essence of cultural interaction. The combination of innovative technologies with cultural sensitivity, strategic thinking, and user orientation is important in the development of the museum sphere. It is this synergy that creates the prerequisites for the development of a sustainable and inclusive museum space.

CONCLUSIONS

As a result of the research, it was proved that visual communication and UX design are not only technical or aesthetic tools, but also fundamental components of contemporary museum activities. They ensure the integrity, efficiency, inclusivity, and sustainability of the digital museum environment, contribute to the development of cultural literacy, the creation of new models of interaction between the museum and society, open up new horizons for the preservation, popularisation, and understanding of cultural heritage in the 21st century. The study confirmed that UX design and visual communication are key factors for the effective functioning of digital museum platforms. The contemporary digital museum environment is formed at the intersection of humanitarian and technological approaches, where aesthetics, intuitive interface, personalisation of experience, and inclusivity become the basic components of cultural communication.

Based on a comparative analysis of the cases of Google Arts & Culture, the British Museum and MoMA, it was found that successfully implemented UX/UI solutions significantly affect the perception of cultural content, expand the audience, and reduce access barriers. Thus, the use of AR/VR, personalised routes, responsive

design, and visual hierarchy allows users to deepen interaction with exhibits, form an emotional connection, and expand knowledge. Evaluation of UX solutions was carried out by analysing the content of digital museum platforms, studying cases and observing, which helped to identify effective approaches to creating visually rich, convenient, and inclusive digital expositions. It was revealed that the most effective UX strategies are based on the principles of design thinking, semiotics of visual images, and digital accessibility standards.

Summing up, it is necessary to emphasise the need for further interdisciplinary research aimed at integrating UX design, visual communication, and technologies in the museum environment, especially in the Ukrainian context, where such practices are still in the initial stage of development. The prospects for further

research are the development of national UX standards for museum platforms, the introduction of innovative technologies (neural interfaces, meta-universe expositions, generative design), and an in-depth analysis of the impact of digital solutions on the cultural identity, the development of creative industries, and increasing the competitiveness of museums in the world market.

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REFERENCES

- [1] Avni, Y., Danial-Saad, A., & Kuflik, T. (2025). Design for inclusion: A systematic review of technologies and frameworks for enhancing the museum experience of blind and low-vision visitors. *SSRN*. doi: [10.2139/ssrn.5298805](https://doi.org/10.2139/ssrn.5298805).
- [2] Buniak, N. (2022). Psychological expert examination of inclusive educational environment: Theoretical analysis. *Psychology and Personality*, 1(21), 9-20. doi: [10.33989/2226-4078.2022.1.251920](https://doi.org/10.33989/2226-4078.2022.1.251920).
- [3] Capece, S., Chivăran, C., Giugliano, G., Laudante, E., Nappi, M.L., & Buono, M. (2024). Advanced systems and technologies for the enhancement of user experience in cultural spaces: An overview. *Heritage Science*, 12, article number 71. doi: [10.1186/s40494-024-01186-5](https://doi.org/10.1186/s40494-024-01186-5).
- [4] Chang, S., & Suh, J. (2025). The impact of digital storytelling on presence, immersion, enjoyment, and continued usage intention in VR-based museum exhibitions. *Sensors*, 25(9), article number 2914. doi: [10.3390/s25092914](https://doi.org/10.3390/s25092914).
- [5] Chuenchaichon, C., Mamee, W., & Yanpanyanon, S. (2024). The design of a model for providing information at local museums through mobile devices with Beacon technology. *Journal of Graphic Engineering and Design*, 15(3), 5-20. doi: [10.24867/JGED-2024-3-005](https://doi.org/10.24867/JGED-2024-3-005).
- [6] Europeana. (n.d.). *Discover Europe's digital cultural heritage*. Retrieved from <https://www.europeana.eu/>.
- [7] Google Arts & Culture. (n.d.). Retrieved from <https://artsandculture.google.com/>.
- [8] Gothelf, J., & Seiden, J. (2013). *Lean UX: Applying lean principles to improve user experience*. Sebastopol: O'Reilly Media.
- [9] Hutson, J., & Olsen, T. (2021). Digital humanities and virtual reality: A review of theories and best practices for art history. *International Journal of Technology in Education*, 4(3), 491-500. doi: [10.46328/ijte.150](https://doi.org/10.46328/ijte.150).
- [10] IDEO. (n.d.). Retrieved from <https://www.ideo.com/>.
- [11] Kachkovska, Y.O. (2024). Development of the concept of digital museums: A historiographic overview. *Cultural Studies Almanac*, 1, 101-106. doi: [10.31392/cult.alm.2024.1.12](https://doi.org/10.31392/cult.alm.2024.1.12).
- [12] King, E., Smith, M.P., Wilson, P.F., Stott, J., & Williams, M.A. (2022). Creating meaningful museums: A model for museum exhibition user experience. *Visitor Studies*, 26(1), 59-81. doi: [10.1080/10645578.2022.2129944](https://doi.org/10.1080/10645578.2022.2129944).
- [13] Kobylska, A., & Dzieńkowski, M. (2024). User experience analysis in virtual museums. *Journal of Computer Sciences Institute*, 30, 31-38. doi: [10.35784/jcsi.5382](https://doi.org/10.35784/jcsi.5382).
- [14] Kress, G., & van Leeuwen, T. (2020). *Reading images: The grammar of visual design*. London: Routledge. doi: [10.4324/9781003099857](https://doi.org/10.4324/9781003099857).
- [15] Lechner, K., & Banakh, V.M. (2019). *Application of UX principles in museum marketing*. In *77th student scientific and technical conference: Collection of abstracts* (pp. 65-67). Lviv: Lviv Polytechnic Publishing House.
- [16] Mkpojiogu, E., & Okeke-Uzodike, O.E. (2022). *Understanding users' UX needs through the lenses of psychological needs theories: Users' expectations and felt experiences*. In *International conferences on interfaces and human computer interaction 2022; and game and entertainment technologies 2022* (pp. 75-83). Lisbon: International Assn for Development of the Information Society (IADIS).
- [17] MoMA. (n.d.). Retrieved from <https://www.moma.org/>.
- [18] Mystetskyi Arsenal National Art and Culture Museum Complex. (n.d.). Retrieved from <https://artarsenal.in.ua>.
- [19] Neusser, T. (2023). UX basics: Study guide. *Nielsen Norman Group*. Retrieved from <https://www.nngroup.com/articles/ux-basics-study-guide/>.

- [20] Nofal, E., Panagiotidou, G., Reffat, R.M., Hameeuw, H., Boschloos, V., & Vande Moere, A. (2020). Situated tangible gamification of heritage for supporting collaborative learning of young museum visitors. *Journal on Computing and Cultural Heritage*, 13(1), article number 3. doi: [10.1145/3350427](https://doi.org/10.1145/3350427).
- [21] Norman, D. (2013). *The design of everyday things: Revised and expanded edition*. New York: Basic Books.
- [22] Parry, R., & Dziekan, V. (2021). *Critical digital: Museums and their postdigital circumstance*. In H. Barranha & J. Simoes Henriques (Eds.), *Art, museums & digital cultures: Rethinking change* (pp. 16-26). Lisbon: Universidade NOVA de Lisboa.
- [23] Pietroni, E. (2025). Multisensory museums, hybrid realities, narration and technological innovation: A discussion around new perspectives in experience design and sense of authenticity. *Heritage*, 8(4), article number 130. doi: [10.3390/heritage8040130](https://doi.org/10.3390/heritage8040130).
- [24] Smithsonian Institution. (n.d.). *Inclusive digital interactives: Best practices + research*. Retrieved from <https://access.si.edu/sites/default/files/inclusive-digital-interactives-best-practices-research.pdf>.
- [25] The British Museum. (n.d.). Retrieved from <https://www.britishmuseum.org/>.
- [26] The Metropolitan Museum of Art. (n.d.). Retrieved from <https://surl.lu/nxcakt>.
- [27] Tormahova, A. (2023). Digital technologies as the basis for the formation of digital anthropology. *Ukrainian Culture: Past, Present, Ways of Development*, 47, 45-49. doi: [10.35619/ucpmk.v47i.721](https://doi.org/10.35619/ucpmk.v47i.721).
- [28] Tosi, F. (2020). *From user-centred design to human-centred design and the user experience*. In *Design for ergonomics* (pp. 47-59). Cham: Springer.
- [29] Victoria and Albert Museum. (n.d.). Retrieved from https://www.vam.ac.uk/?srsltid=AfmBOorGM3XZ4g-D7l44T8QVc_RI45ivTgOGPUUZyP_Tak2PKGqY7tj3.
- [30] Volynets, V.O. (2021). Digital technologies in the sphere of culture: Theorizing the problem of digital data and cultural heritage. *Digital Platform: Information Technologies in the Socio-Cultural Sphere*, 4(2), 195-205. doi: [10.31866/2617-796X.4.2.2021.247481](https://doi.org/10.31866/2617-796X.4.2.2021.247481).
- [31] W3C Recommendation. (2025). *Web content accessibility guidelines (WCAG) 2.1*. Retrieved from <https://www.w3.org/TR/WCAG21/>.
- [32] Wang, Z., Yuan, L., Wang, L., Jiang, B., & Zeng, W. (2024). VirtuWander: Enhancing multi-modal interaction for virtual tour guidance through large language models. In *Proceedings of the 2024 CHI conference on human factors in computing systems* (article number 612). New York: Association for Computing Machinery. doi: [10.1145/3613904.3642235](https://doi.org/10.1145/3613904.3642235).
- [33] Zhu, X.T., Qiu, Z., Wei, Y., Wang, J., & Jiao, Y. (2025). Understanding the practice, perception, and challenge of blind or low vision students learning through accessible technologies in non-inclusive 'blind colleges'. *arXiv*. doi: [10.48550/arXiv.2501.07736](https://doi.org/10.48550/arXiv.2501.07736).
- [34] Zhuang, Q., Xu, W., Yang, D., & Wei, N. (2022). Multimedia analysis of digital museum user interface based on goal-oriented theory and information fusion and intelligent sensing. *Journal of Sensors*, 2022(1), article number 9656817. doi: [10.1155/2022/9656817](https://doi.org/10.1155/2022/9656817).

Візуальна комунікація та дизайн користувацького досвіду у формуванні цифрового музейного середовища: теоретико-практичні аспекти

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Анотація. Актуальність цього дослідження зумовлена потребою у розробці нових підходів до проектування цифрових музейних просторів, які б поєднували гуманітарні та технологічні знання, відповідали сучасним запитам аудиторії та сприяли формуванню інклюзивного, доступного і культурно насиченого досвіду. Мета статті полягала у комплексному аналізі ролі візуальної комунікації та дизайну користувацького досвіду у формуванні сучасного цифрового музейного простору, а також у виявленні основних концептів, принципів і підходів до створення ефективного музейного досвіду у цифровому середовищі. Для досягнення цієї мети використано структурно-функціональний, компаративний, історичний методи, а також методи дизайн-аналізу, семіотики візуальних образів, принципи архітектоники дизайну користувацького досвіду та інтерфейсного юзабіліті. Визначено основні принципи організації інтерфейсу, проаналізовано сучасні підходи до створення інтерактивного та інклюзивного користувацького досвіду, а також окреслено практичне значення впровадження інноваційних дизайн-рішень у музейній сфері. Визначено, що цифрове музейне середовище формується на стику культурології, мистецтвознавства, інформаційних технологій та дизайн-комунікацій. Проаналізовано успішні приклади цифрових музеїв та онлайн-архівів, де дизайн користувацького досвіду та дизайн користувацького інтерфейсу трансформують спосіб сприйняття культурної спадщини. На підставі аналізу успішних прикладів цифрових музеїв (Google Arts & Culture, Британський музей, Museum of Modern Art) було виявлено, що дизайн користувацького досвіду та дизайн користувацького інтерфейсу значною мірою впливають на доступність, персоналізацію та емоційне сприйняття культурного контенту. Сформульовано теоретико-методичні підходи до взаємодії дизайну користувацького досвіду та візуальної комунікації у музейному середовищі, а також у виявленні нових форматів інтерфейсної візуалізації, здатних активізувати інтерес до культурного продукту у цифровій сфері. Дослідження може бути використане фахівцями у сфері музейної справи, графічного дизайну, інтерфейсної розробки, цифрової гуманітаристики для створення інноваційних експозиційних практик

Ключові слова: UI-UX-дизайн; взаємодії дизайну; використання AR/VR; мультимедіа; графічний дизайн; людиноцентричний дизайн



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Drawing in the creative and pedagogical activities of Viktor Bystryakov

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Abstract. The relevance of this work lied in the absence of a thorough analysis of Viktor Bystryakov's easel graphics, despite its significance for understanding the development of the Ukrainian school of drawing in the second half of the 20th century. The aim of the study was to examine and analyse the legacy of Ukrainian artist and teacher Viktor Bystryakov in the field of drawing. Comparative and historical methods, methods of art analysis and empirical research were used. The article identified the distinctive features of drawing in the work of the Ukrainian artist, who used and continued the realistic traditions of the Kyiv school of drawing. The patterns of the master's work were characterised, such as: generalisation of form, subordination of the secondary to the main, compositional balance, perfect mastery of line and spot, skilful use of the technical features of the graphic materials used and the base on which the drawing is applied. The study found that Viktor Bystryakov's individual style of drawing was influenced by the methodological approaches of S. Podervianskyi, O. Kryvonos, and T. Yablonska. The article analysed Viktor Bystryakov's pedagogical approaches, which have made a significant contribution to the development of Ukrainian artistic and educational practice. In the course of analysing scientific works devoted to the artist, it was established that his creative work is mainly covered in the context of exhibition activity and pedagogical practice. The main directions of the creative approach to the execution of easel drawings were identified on the basis of a newly discovered empirical research base, which consists of drawings found in the artist's creative workshop and quotations from his archives, which are being published for the first time. The principles of easel drawing, confirmed by teaching practice, can be used in methodological materials in the educational process when training a wide range of specialists: designers, graphic artists, illustrators, motion designers and animation artists

Keywords: Ukrainian art; drawing from life; educational process; drawing techniques; sketch

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INTRODUCTION

The analysis of the work of masters of fine arts in the field of drawing is relevant and practically significant. In the context of creative young people turning to artificial intelligence tools in art and design education and practice, there was a risk that applicants, students or young cultural and artistic figures will lose the skills of quick or long-term manual drawing, correspondence between brain activity, emotional reflection and physical actions, and hand motor skills when creating works by hand. In view of this, practical experience in drawing on paper is extremely valuable and deserves scientific attention in the context of researching the work of leading representatives of this genre among Ukrainian artists and teachers. The assertion that hand drawing and sketching are important methods for developing the creative abilities of students pursuing creative specialties was recorded in a study by Zh.V. Deineko & V.V. Ievleva (2022), who noted that modern students, having at their disposal the vast capabilities of Adobe Photoshop, Photo Pencil Sketch, Adobe Illustrator and using appropriate filters and effects, have the ability to create realistic pencil sketches in a matter of minutes. In such conditions, the importance of pencil drawing is growing, as it retains its functions as a working tool and is perceived as a special kind of creativity with its own means of expression and its own laws. The article by H. Hautopp & M. Buhl (2021) provided empirical examples of how academic practices in higher education use a combination of different design methods and drawing techniques as a means of improving student development in the field of digital learning. The article proposed research into drawing as a tool for academic dialogue during the development of digital learning designs, which, according to the authors, played an important role in students' pedagogical considerations regarding digital learning projects and data collection. This study recognised the potential of drawing as a tool for academic dialogue on a par with academic reading and writing and showed the interaction between students' analogue drawing and their development of digital learning projects, concluding that analogue practices improve digital ones in academic education.

Sh.Sh. Tursunov (2023), dividing the training of students during their studies at the institute into three stages (reproductive, reproductive-creative, creative activities), concluded that the gradual formation of professional skills in students, despite their different training in pencil drawing, is particularly effective when combining related disciplines: drawing, painting, sculpture, architectural design. The article by S. Muzaffarova (2025) is devoted to the analysis of methods for improving the teaching of academic drawing in higher education institutions and considered the main approaches to modern and innovative methods of teaching academic drawing, including interactive teaching methods, the use of digital technologies, practical exercises and an individual

approach. The researcher presented proposals aimed at integrating art and technology, introducing virtual and augmented reality technologies into the educational process, and developing students' creative thinking. Methods and practical recommendations were provided to help teachers work effectively with students.

The role of colour as an additional means of expression in drawing was the subject of an article by N. Zhuravlova & O. Mykhailytskyi (2024), which analysed several drawings by Viktor Bystryakov. According to the researchers' conclusions, the colour scheme of a work is the basis of its linguistic context, which for the most part does not require any special interpretation, as it contains the key to a system of visual communication that anyone can use. Masters use colour in drawing techniques as an emotional and figurative language, investing the necessary meanings in the overall visual series. N. Belichko (2021) referred to Viktor Bystryakov's film posters in conference abstracts. Although they concerned graphic design, the conclusions made by the Ukrainian scholar regarding Viktor Bystryakov's creative principles also apply to his drawing practice. Some of the research concerns the place of drawing in the academic education system. Thus, the state of teaching academic drawing as one of the fundamental elements of art education was highlighted by O.A. Stashuk (2023). The article examined the reasons for the lack of attention and outright disregard for the basic principles of academic drawing, or, conversely, the excessive attention given to academic teaching methods. In the same context, the state of drawing teaching was analysed in the scientific work of S. Bryliov *et al.* (2024), where it was noted that the reduction in the volume of educational programmes in drawing, painting and sculpture had a negative impact on the quality of training of future artists and designers.

Another area of research focused on adapting academic drawing to modern market requirements. At the same time, V.S. Babenko & S.A. Maslova (2021) emphasised the exceptional importance of developing drawing skills in the process of mastering the basics of visual literacy, which remains relevant even in the context of the development of the latest information and communication technologies. This indirectly recognised the importance of the legacy of Ukrainian masters of this genre. M.O. Pichkur (2020a; 2020b) addressed the issue of artistic and educational integration of academic and digital drawing in his works, emphasising that this practice is new, mostly spontaneous and unsystematic in the artistic and pedagogical dimension. Given the insufficient level of its theoretical understanding, the researcher outlined the pedagogical principles of studying hybrid drawing in the system of visual arts training for art specialists.

Most studies in the field of drawing, both as an educational component and as exhibition content, do not

describe the achievements and developments of Viktor Bystryakov, although his works are preserved in well-known Ukrainian collections and are part of the national heritage. Based on the analysis of the literature, the aim was to conduct research in the field of Viktor Bystryakov's creative and pedagogical activities.

MATERIALS AND METHODS

The research was conducted in several consecutive stages. At the first stage, an inventory and systematisation of materials from the artist's studio, including drawings and archival records, was carried out. The second stage consisted of an art historical analysis of the identified works: techniques, compositional techniques, and stylistic features were determined. The third stage involved comparing the results with the traditions of the Kyiv School of Drawing and the pedagogical principles of renowned masters. The final stage involved interpreting the data obtained in the context of Viktor Bystryakov's creative and teaching activities and formulating general conclusions.

The source base of the study consisted of archival materials from Viktor Bystryakov's creative workshop in Kyiv (diaries, personal notes, previously unpublished drawings in various techniques), as well as publications about the artist in scientific literature. The data from the diaries and drawings were provided to the authors free of charge by Yevhen Kuprienko, a member of the Poster and Graphic Design Section, from personal archive. Several methodological approaches were used to process the collected material. The historical-comparative method made it possible to identify the influence of the Kyiv School of Drawing and trace the continuity of traditions in the artist's work. Art analysis was used to study compositional solutions, execution techniques, and the interpretation of lines, tone, and colour. The empirical research method involved the direct analysis of original drawings, their digital recording, and classification by technique (pencil, sanguine, charcoal, pastel, mixed media). The combination of these methods made it possible to systematise the artist's creative legacy, correlate it with his pedagogical activity, and outline V. Bystryakov's contribution to the development of Ukrainian drawing.

RESULTS AND DISCUSSION

Viktor Bystryakov occupies an important place among leading Ukrainian graphic artists and poster artists. As an artist and teacher, he belonged to the Kyiv Art School, and his creative development took place in the 1960s-1980s. From 1959 to 1963, he studied at the T.H. Shevchenko Republican Art School, after which he continued his education at the Graphic Arts Department of the Kyiv State Art Institute, graduating in 1972. His mentors were well-known artists and teachers, including Tymofii Liashchuk, Serhii Hrosh, Serhii Podervianskyi, and Oleksandr Kryvonos, while Tetiana

Yablonska had a significant influence on the formation of his artistic individuality. Throughout his career, Viktor Bystryakov's methodological approach to teaching drawing was based on both the academic school of the old masters and the achievements of the Kyiv school of drawing (Kostyantyn Yeleva, Serhiy Hryhoriev). The originality of the latter's tradition lay in its analytical approach to the process of drawing, which distinguished it from other educational centres, where the features of classical academicism and naturalism prevailed.

After completing studies, throughout the creative career, Bystryakov produced a vast number of drawings in various techniques – including works executed in pencil, sanguine, sauce, charcoal, chalk, and mixed media, on plain, tinted, or designer paper and cardboard. Sketches and studies represent characteristic examples of linear drawing enhanced by precise tonal accents. Y. Maystrenko-Vakulenko (2021a; 2021b) studied the drawings, both those made at the front and those made during evacuation, by Ukrainian artists during the Second World War, thus describing a certain stage in the development of the Kyiv drawing school that influenced Viktor Bystryakov. According to the researcher, the genre of drawing is characterised by intimacy, individuality, and a subtle harmony with the artist's soul, which connects the works of the older generation of Kyiv draughtsmen with the artists of the late 20th and early 21st centuries.

Viktor Bystryakov achieved maximum expressiveness of the image with concise means of expression. The lively lines of sketches and studies would either intensify, emphasising form, or fade, allowing the image to dissolve into space (Fig. 1). The line simultaneously shaped both the distinctive volume and the atmospheric environment. Only mastery of drawing technique, a deep understanding of the expressive potential of line, and refined artistic taste enabled the creation of such self-contained compositions. Bystryakov described the creative manner in a personal diary as one that allows bold drawing employing both broad and fine lines or tonal patches (Bystriakov, n.d.). According to V. Bystryakov's creative method, a drawing should be precise, emotionally rich and convincing, with light forming the main accent and the rest of the details immersed in ambiguous calm.

Working in a technique such as sanguine, the artist drew on the experience of masters of the past: Raphael Santi, Leonardo da Vinci, Andrea del Sarto, Peter Paul Rubens. Using lines and strokes, he conveyed not only volume but also the texture of the material's surface. Using the tone of the paper, the artist often added charcoal, chalk, and even paint, mostly gouache or tempera, to the main material (sanguine). The attraction to the classical heritage is also evident in the poster art of Viktor Bystryakov, who in the late 1960s and early 1970s turned to purely artistic themes in his posters, such as "An Evening Dedicated to the Work of Rembrandt

Harmenszoon van Rijn" (1969), "Raffaello Santi" (1970), and "Albrecht Dürer" (1971). Works on such themes would have been impossible without perfect mastery of drawing, preliminary sketches, the ability to condense graphic expression and conciseness of image, the desire to compress narrative illustrative material into a symbolic representation, and adaptation to the technical requirements of the silkscreen printing process (use of a limited number of flat colours and the absence or conventionality of tonal transitions) (Romanenkova, 2024).

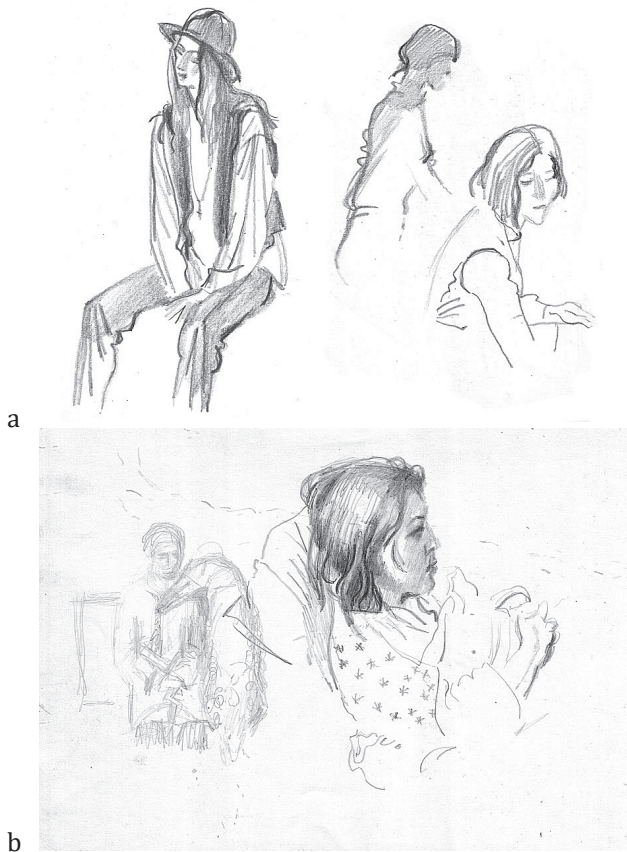


Figure 1. Sketches. Viktor Bystryakov

Note: a – sketches of students; b – portrait of wife

Source: photo by Yevgen Kuprienko

The artist worked with almost all the materials used by the classics of the genre, extracting from them the valuable qualities necessary for creating an artistic drawing. The artist also managed to achieve simplicity and overall harmony of tone, despite the complex technique of execution. The author has a distinctly creative style, and his drawings are distinguished by a special quality – a virtuoso interpretation of artistic form, a sense of completeness that signifies the achievement of the set goal and task, without which creative work would be endless and meaningless (Bystriakov, n.d.). Such completion of form is not accidental – it is based on a carefully constructed compositional logic, where each stroke is subordinated to a single figurative goal.

Figure 2 demonstrated the artist's deep understanding of the plastic structure of the face, the psychological characteristics of the model and its inner state.



Figure 2. Female portrait. Viktor Bystryakov

Source: photo by Yevgen Kuprienko

V. Bystryakov's charcoal drawings are purely linear works executed on white paper. They effectively convey the energy of movement and form. By using lines of varying pressure, the artist achieved great power and volume (Fig. 3). Contrast, power, convincing form, expression, and emotional dynamics are all things that give the work mobility and expressiveness. It is in the charcoal technique that his ability to control the rhythm and tempo of the drawing, to create the illusion of movement even in static poses, is manifested (Shevchenko, 2020).



Figure 3. Naked. Viktor Bystryakov

Source: photo by Yevgen Kuprienko

Most often, the artist used charcoal with other materials, especially pastels or sanguine. Pastels played a significant role in his work, which consisted of drawings made with concise means – coloured paper, lines and a few coloured spots (Fig. 4). The artist delicately balanced graphic precision and painterly expression, choosing only a few colour accents that gave the drawing depth.



Figure 4. Use of coal with other materials.

Viktor Bystryakov

Source: photo by Yevgen Kuprienko

The colour of the base on which it was applied played a significant role in his pastel sketches. The base was selected in white, grey, or coloured tones. In many sheets, the inherent colour of the paper or cardboard integrates organically into the overall chromatic composition of the drawing. Particular attention was given

to the sense of corporeality, achieved through the combination of soft contours and warm shades. The colour of the paper often served as a “third tone,” adding light and shadow balance to the composition. Mastery in handling artistic materials is demonstrated in the sheets devoted to the nude figure (Fig. 5), where both hatching and blending of the medium, particularly sanguine, were employed.



Figure 5. Sketches of nude models. Viktor Bystryakov

Source: photo by Yevgen Kuprienko

One of the significant features of Viktor Bystryakov’s artistic manner was the conscious rejection of superfluous details, such as drapery, furniture, or other secondary elements accompanying the model during posing. This asceticism allows the artist to focus on the main thing: movement, dynamics, emotional

impression of nature, embodiment of a certain plastic idea or image. If such a detail does appear, such as the drapery in Figure 5, it is solely for compositional balance and to emphasise the posture of the naked female figure. Breaking down the drawing of the model's head into four stages, G. Artikov (2025) emphasised in his article that academic drawing or sketching aims for maximum completeness of form, which is determined not by the number of details, but by an understanding of the basic laws of living form. According to this study, insufficiently prepared students usually quickly move on to detailing, lose interest, which leads to premature completion, which is a sign of amateurism. As a result, this leads to a drawing that depicts every detail, down to the wrinkles, but loses the most important aspect – the integrity of larger volumes in space. The principle of viewing a model from all sides before starting to draw is similar to the creative method of Viktor Bystryakov, who practised sketching a single model in the same position from different angles. The artist's signature plays a similar role – light, with expressive elements of cursive letters, a dynamic difference in lines between the author's surname and the date of execution. All these components, applied with great artistic taste and knowledge of the material, work on the image, the artistic impression of the work. As noted by researcher N. Belichko (2021), V. Bystryakov demonstrated the main principles of own artistic vision in his art: the ability to highlight the most characteristic details, to endow colour with meaningful psychological significance, and to create expressive, concise works. And although this applies to the two film posters by the master that were analysed in the abstract, it can also be applied to the artist's drawing practices.

Mixed techniques occupied a special place in V. Bystryakov's drawings. By combining painting materials with graphic ones, the artist achieved unexpected expressiveness through the synthesis of line and texture. Along with traditional means, the artist also used own techniques, in particular his favourite tool – a blade, using the “scratching” technique he developed (Zhuravlova & Mykhailyskyi, 2024). The use of this artistic technique, as demonstrated in the mixed media drawing “Frozen Horror” (2015), transforms the drawing into a philosophical statement with a distinct tragic meaning. Working in all of the drawing techniques listed above, the artist has managed to create an independent and self-sufficient part of his artistic heritage (such as posters), which deserves further careful study and cataloguing. At the same time, there are noticeable parallels in contemporary approaches to art education: author O. Malamuzh (2025) demonstrated techniques in his book that help to develop gradually: from one-minute sketches to realistic portraits, three-dimensional forms, working with light, and even creating own characters. This progressive educational trajectory is close to the principles of Viktor Bystryakov as an artist

who not only created form, worked with shadows and experimented with different tools, but also captured emotion and reproduced images.

The above-mentioned principles of the Kyiv school and personal creative discoveries were implemented in Viktor Bystryakov's teaching activities at the National Academy of Fine Arts and Architecture and Kyiv National University of Technologies and Design. His teaching methodology (as a student of Tymofii Liashchuk's poster workshop) was close to monumental painting and consisted of giving preference to the integrity of the composition in format as opposed to solving the task in parts (even if masterfully executed). This approach to teaching directly correlates with his personal beliefs in creativity – generalising composition in terms of both colour and tone, emphasising the main over the secondary. Similar to the research on the graphic practices of Wilhelm Kotarbinsky in the work of O. Andrianova & S. Biskulova (2024), where the combination of technical analysis and visual observation allowed for a deeper understanding of the artist's artistic method, Viktor Bystryakov's drawings also demonstrate the importance of a systematic approach to working with material and composition. In both cases, the process involves a conscious structural organisation of the image, where technical mastery contributes to the formation of figurative unity and visual logic. This position is in harmony with the statement by A. Pohorilyi (2024) that the Kyiv Drawing School, founded by talented artists, became an important educational centre that not only provided young artists with technical skills, but also shaped their aesthetic worldview, ensuring continuity in the development of the genre and influencing the contemporary educational process. Equally illustrative are the considerations of A. Korol (2022), who, in analysing teaching practice, emphasised the importance of studying the human upper limbs as an integral component of the methodological system in training artist-educators. The integration of independent and classroom work, scientifically grounded and structured as a comprehensive educational strategy, fostered not only practical proficiency but also outlined promising directions in art pedagogy, among which a special role was played by the “evening drawing” sessions.

Viktor Bystryakov developed as a draftsman with profound analytical vision, combining virtuosic technique, constructive thinking, and aesthetic sensitivity. Drawing, in his creative practice, was not a mere replication of nature but a conscious act of exploring form through systematic work and internal discipline. Even under the influence of authoritative mentors, an individual methodology was preserved, based on active observation of the model and a holistic approach to composition. The same attention to compositional integrity, emotional expressiveness, and economy of visual means can be traced throughout all analysed works. Such an approach enables successors to

cultivate not only technical skill but also the capacity for imaginative thinking, conveying mood and character through concise yet precise artistic solutions.

CONCLUSIONS

For the first time, from an art-historical perspective, the creative work in the field of easel drawing by the Honoured Artist of Ukraine, member of the National Union of Artists of Ukraine, former lecturer at the Kyiv National University of Technologies and Design and the National Academy of Fine Arts and Architecture, Professor Viktor Bystryakov, has been analysed. Artistic principles from personal archives, which became available after death, are presented, and reproductions of works found in creative workshop are published. It is determined that drawing exists primarily as an independent art form with its own visual specificity, but it is also the basis of painting, graphic art, and poster art. It has been established that, using the principles of holistic perception of drawing acquired during his student years from Serhii Podervianskyi, the analytical-constructive drawing method of Oleksandr Kryvonos, and the affirmation of imagery in art by Tetiana Yablonska, Viktor Bystryakov not only continued the traditions of the Kyiv school of drawing, but also created his own recognisable style. The vast number of combinations of drawing techniques in the master's work (charcoal, chalk, pencil,

pastel, sanguine, sauce) are united by drawing, which was an important component of artistic thinking and creativity. It has been established that in the master's work, drawing served as a means of both a first compositional sketch declaring the composition, dynamics or statics of the arranged masses, and an independent easel work that could be exhibited in the halls of national creative unions or private galleries both in Ukraine and abroad. Prospects for further research include the discovery and art-historical analysis of previously unpublished works in the drawing genre, as well as the study of their significance for both the artistic and pedagogical activity of this prominent Ukrainian artist and for Ukrainian art as a whole. A separate area of research could be tracing the influence of artist's creative method on the development of Ukrainian art through the implication of his approaches in the work of his students at two higher educational institutions.

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REFERENCES

- [1] Andrianova, O., & Biskulova, S. (2024). Wilhelm Kotarbinski's sketches for the murals of St. Volodymyr's Cathedral: A multi-analytical approach to the artist's painting materials study. *Notes on Art Criticism*, 24(2), 7-15. doi: 10.63009/noac/2.2024.07.
- [2] Artikov, G. (2025). [The role and significance of drawing in the educational process of higher education institutions](#). In *VII international scientific and theoretical conference "Modernization of today's science: Experience and trends"* (pp. 347-349). Kyiv: Ukrainian Institute of Scientific and Technical Expertise and Information.
- [3] Babenko, V.S., & Maslova, S.A. (2021). [Drawing in the context of the development of the latest information and communication technologies](#). In *European scientific discussions: The 3rd international scientific and practical conference* (pp. 341-346). Poltava: Korolenko Poltava National Pedagogical University.
- [4] Belichko, N. (2021). [Movie poster in the work of Viktor Bystryakov](#). In *The international scientific conference "Eighth Platonic readings"* (pp. 62-63). Kyiv: SPD Chalchynska N.V.
- [5] Bryliov, S., Glukhenkij, I., Zhuravliova, N., & Kochubei, M. (2024). Academic school in modern conditions: Strategies for the development of fine arts, design in art institutions of higher education of Ukraine. *Ukrainian Academy of Art*, 35, 104-112. doi: 10.32782/2411-3034-2024-35-11.
- [6] Bystriakov, V. (n.d.). *Personal diary*.
- [7] Deineko, Zh.V., & Ievleva, V.V. (2022). [The role of academic drawing in the modern design education system](#). In *Printing, multimedia and web technologies: Abstracts of the VII international scientific and technical conference* (pp. 153-154). Kharkiv: Kharkiv National University of Radio Electronics.
- [8] Hautopp, H., & Buhl, M. (2021). Drawing as an academic dialogue tool for developing digital learning designs in higher education. *The Electronic Journal of e-Learning (EJEL)*, 19(5), 321-335. doi: 10.34190/ejel.19.5.2466.
- [9] Korol, A. (2022). Theoretical foundations of depicting human upper limbs and their practical implementation in the Evening Drawing studio. *Current Issues in the Humanities*, 51, 156-162. doi: 10.24919/2308-4863/51-22.
- [10] Malamuzh, O. (2025). [Quick drawing](#). Kyiv: ArtHuss.
- [11] Maystrenko-Vakulenko, Y. (2021a). Frontline drawings of Ukrainian artists of the Second World War period. *Art Studies Notes*, 40, 57-66. doi: 10.32461/2226-2180.40.2021.250337.
- [12] Maystrenko-Vakulenko, Y. (2021b). Drawing of Ukrainian artists during evacuation (1941-1945). *Ethnographic Notebooks*, 2(158), 440-450. doi: 10.15407/nz2021.02.440.

- [13] Muzaffarova, S. (2025). [Methods of improving the teaching of academic pen art in higher educational institutions](#). *American Journal of Education and Learning*, 3(3).
- [14] Pichkur, M.O. (2020a). [The artistic and educational role of integrating academic and digital drawing](#). In *About the problems of science and practice, tasks and ways to solve them: Abstracts of VI international scientific and practical conference* (pp. 260-263). Uman: Uman State Pedagogical University named after Pavlo Tychyna.
- [15] Pichkur, M.O. (2020b). [Pedagogical foundations of studying hybrid drawing in the system of visual arts training for art specialists](#). In *Youth, education, science and art: Materials from the VI international scientific and practical conference* (pp. 68-73). Uman: VPC "Visavi".
- [16] Pohorilyi, A. (2024). The influence of the Kyiv school of drawing on the works of F. Krasyt'skyi and V. Bialynyt'skyi-Biruli, L. Koval'skyi. *Ukrainian Art Discourse*, 4, 126-133. doi: [10.32782/uad.2024.4.18](#).
- [17] Romanenkova, Y.V. (2024). Contemporary trends in Ukrainian graphic art: A new word in art or the destruction of traditions. *ART-Platform*, 10(2), 106-129. doi: [10.51209/platform.2.10.2024.106-129](#).
- [18] Shevchenko, M. (2020). Features of the artistic language of the sixties in easel graphics. *Paradigm of Knowledge*, 5(43). doi: [10.26886/2520-7474.5\(43\)2020.20](#).
- [19] Stashuk, O.A. (2023). [Academic drawing in the context of contemporary art education](#). *Current Issues in Cultural Studies*, 22, 59-64.
- [20] Tursunov, Sh.Sh. (2023). [The value and significance of academic drawing in the formation of future architects in the processes of higher education](#). *Asia Pacific Journal of Marketing & Management Review*, 12(5), 25-30.
- [21] Zhuravlova, N., & Mykhailytskyi, O. (2024). Color in drawing as an additional means of expression in the work of Ukrainian artists. *Current Issues in the Humanities*, 75(1), 76-84. doi: [10.24919/2308-4863/75-1-11](#).

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Анотація. Актуальність роботи полягала у відсутності ґрунтовного аналізу станкової графіки Віктора Бистрякова, попри її значущість для розуміння розвитку української школи рисунка другої половини ХХ століття. Метою дослідження було вивчити та проаналізувати спадщину українського митця і педагога Віктора Бистрякова у галузі рисунку. Застосовано порівняльний та історичний методи, методи мистецтвознавчого аналізу та емпіричного дослідження. У статті встановлено особливості рисунка у творчості українського художника, який використовував і продовжував реалістичні традиції Київської школи рисунку. Охарактеризовано закономірності творчості майстра, такі як: узагальнення форми, підпорядкування другорядного головному, композиційна збалансованість, досконале володіння лінією, плямою, майстерне використання технічних особливостей застосованих графічних матеріалів і основи, на яку наноситься рисунок. У результаті дослідження з'ясовано, що індивідуальний стиль рисунка Віктора Бистрякова сформувався під впливом методичних підходів С. Подерв'янського, О. Кривоноса та Т. Яблонської. У статті проаналізовано педагогічні підходи Віктора Бистрякова, які стали вагомим внеском у розвиток української художньої та освітньої практики. У ході аналізу наукових праць, присвячених художнику, встановлено, що його творчий доробок переважно висвітлюється у контексті виставкової діяльності та педагогічної практики. З'ясовано основні напрями творчого підходу до виконання станкових рисунків на основі нововиявленої емпіричної бази дослідження, яку складають рисунки, знайдені у творчій майстерні митця та цитати з його архівів, що оприлюднюються вперше. Підтверджені практикою викладання принципи станкового малюнку можуть бути використані у методичних матеріалах в освітньому процесі при підготовці фахівців широкого діапазону: дизайнерів, художників-графіків, ілюстраторів, мушн-дизайнерів та художників анімації

Ключові слова: українське мистецтво; малювання з натури; освітній процес; техніки рисунка; начерк



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Interactive “smart” glass as an element of forming an adaptive object-spatial environment

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Abstract. “Smart” glass, as a new material with functional and visual advantages, attracts the attention of architects and designers, opening up new opportunities for modern interiors. The growing number of projects and the lack of generalised experience have determined the relevance of the study. The aim of the work was to analyse trends in the implementation of interactive “smart” glass in the interior design of residential and public buildings, to determine its classification and functional and utilitarian capabilities in terms of forming an adaptive spatial environment. The research was based on a set of general scientific theoretical methods of cognition, which included the implementation of such methods as analysis, synthesis, classification, and generalisation. The author’s definition of the concept of “smart” glass in terms of the formation of an adaptive space was provided. Based on the analysis of practical material, “smart” glass was systematised according to its functional and utilitarian capabilities in the formation of an adaptive object-spatial environment. As a result of the work, methods for implementing various types of “smart” glass in the interior design of residential and public spaces were identified. It was found that the most common are touch and projection technologies, which form a visual and communicative environment in public spaces. In residential interiors, “smart” glass performs a predominantly utilitarian function, contributing to energy conservation and privacy. The results also confirmed the aesthetic and functional potential of “smart” glass as an element of adaptive space. Systematisation of material on the implementation of “smart” glass in modern interiors will enable Ukrainian architects and designers to apply theoretical knowledge in design practice to create interactive object-spatial environments. The presented theoretical developments can serve as a basis for predictive design solutions using certain types of “smart” glass

Keywords: interior design; innovations; “smart” technologies in environmental design; technologisation of space; modern trends

INTRODUCTION

The formation of modern interiors for residential and public spaces is based on the desire for spatial adaptability. One of the innovations that can meet this demand is “smart” glass. This technology allows to take a new look at the process of organising space, and the variety of its types and special properties enable designers to implement new concepts of space organisation.

The development of these technologies and their active implementation in interior design highlights the need to systematise extensive empirical experience for the convenience of its implementation in further design practice.

The issue of using “smart” glass in interior design has been considered by both Ukrainian and foreign scientists. Among the publications of Ukrainian researchers

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analysing the implementation of innovative technologies in environmental design, the collective work of I. Bondarenko *et al.* (2022) should be highlighted. The work identified the leading compositional techniques for the placement of interactive sensory objects in the interiors of public buildings. The authors determined that the placement of such objects is most often carried out according to two leading compositional schemes: based on a grid system and according to a radial scheme. The researchers emphasised that interactive multimedia objects add adaptability and attractiveness to the interior, which is an important factor in the formation of modern public space. The advantages of introducing interactive technologies in the interior design of public establishments such as commercial institutions were considered in the work of A. Obeidat *et al.* (2020). The authors emphasised that the use of innovations is intended to attract the attention of visitors and create a new experience of interaction between potential buyers and the goods presented in the commercial space.

In the context of this study, it was important to consider scientific works devoted to the analysis of modern "smart" materials and the specifics of their implementation in the architectural environment. The study by Q. Chen *et al.* (2024) considered the issue of modelling interactive materials in the development of adaptive structures. The researchers noted that "smart" materials, which change their properties under the influence of external factors, are characterised by non-linear behaviour and complex constitutive models, which significantly complicates the process of their design. The team of authors M. Al Alim *et al.* (2025) examined the characteristics of innovative "smart" polymer materials. The researchers noted that such materials have a wide range of functional purposes, environmental sustainability, and multidisciplinary applications. The authors emphasised that the introduction of these materials into architecture, construction and engineering will increase the stability and durability of structures.

The prospects for the introduction of "smart" materials in construction and architecture in China were analysed in a study by S. Xu (2024). The scientist considered the use of piezoelectric "intelligent" materials and technologies for phase transition energy storage. This issue was studied from the perspective of energy efficiency, where the use of smart materials is consistent with the concept of sustainable development and solves the problem of high energy consumption in construction. The work of M. Abdelaal (2022) examined the features of the implementation of smart systems in the architecture of administrative buildings in Egypt. Such systems have a positive impact on construction at the environmental, social and economic levels. Buildings equipped with "smart" technologies represent an interconnection of design solutions, control systems, maintenance and management. The interior space of

such a building adapts to the needs of the user, ensuring maximum comfort for human life.

The issue of implementing "smart" glass in Egyptian architecture was discussed in an article by M. Hassan *et al.* (2025). The researchers examined this issue from the perspective of sustainable development, where access to affordable and renewable energy resources is important. The researchers note that energy consumption and thermal comfort in modern office buildings in the region are critical factors that must be taken into account at the design stage. Total glazing of buildings has a negative impact on the thermal comfort of people who are constantly in such spaces. The authors noted that one solution for regulating the thermal characteristics of the interior is glazing with the use of "smart" glass. The issue of creating windows equipped with "smart" glass was highlighted in a study by Y. Zhou *et al.* (2021). During the experiments, the scientists found that such a window has reduced energy consumption with a high light transmittance coefficient. The researchers emphasised that in terms of energy efficiency, windows are one of the lowest-performing elements in a building's construction – in summer, more than 70% of heat is transferred into the room through windows, and in winter, windows account for 30% of heat loss. Thus, the use of "smart" glass in architecture is environmentally and economically viable. A similar issue was addressed in a comprehensive study by S. Nundy *et al.* (2021), where scientists noted that a building equipped with windows with "smart" glass actively consumes the electricity generated by its own system. This is what allows to meet the needs for air conditioning, heating and artificial interior lighting.

A thorough analysis of the current scientific literature on this issue has shown that most researchers focus on the technical features of smart technologies and materials, while the issue of implementing smart glass in the interior design of public and residential buildings has not been comprehensively covered and requires more in-depth analysis. This determined the aim of the scientific article, which was to systematise practical material, conceptualise the notion of "smart glass" and classify this "smart" technology according to its functional purpose in the field of interior design for residential and public spaces.

MATERIALS AND METHODS

To achieve the set goal, a complex of general scientific theoretical research methods was used, including analysis, synthesis, classification, and generalisation. The authors used the analysis method to study the components of the design of the object-spatial environment, in which the implementation of "smart" materials is observed. The main criteria for the analysis of this theoretical study were objectivity and validity (in their research, the authors relied on factual material – implemented design projects and prognostic design

developments presented to the general public, where “smart” glass was used) and systematicity (which was used in structuring disparate material according to the type of action of “smart” glass). The analysis helped to identify ways of placing interactive objects in a spatial environment. Synthesis was implemented when summarising design experience and deriving methods for implementing “smart” glass in a spatial environment. The classification method was implemented to identify groups of “smart” glass and determine a number of functional advantages of implementing this technology in modern interior design, and the application of the generalisation method allowed to summarise the conclusions of the work.

The leading materials of the study were public interiors, which include museums, exhibition and educational centres, office premises, shopping and entertainment complexes, and hotels. These included the Porsche “Mobilitätszentrum” museum (n.d.), the VW Exposition Center (Hammadeh, 2017), the Hiltol hotel (Virtual On, n.d.) and Microsoft (Archilovers, 2013). The use of these cases made it possible to identify the specifics of integrating sensory, projection and holographic glass into public spaces. Analysis of the examples made it possible to refine the compositional techniques for placing interactive surfaces, determine their functional roles in the formation of an adaptive object-spatial environment, and outline the possibilities for the variable integration of “smart” glass into contemporary design practice. It is in the interiors of these objects that the trend towards the active introduction of “smart” glass technologies is most clearly visible, providing variable opportunities for the formation of both functional and artistic solutions for the object-spatial environment. In addition, a number of private residential interiors were considered, where the introduction of “smart” glass began to spread.

RESULTS AND DISCUSSION

In scientific sources, “smart” glass (glass with variable properties) is defined as a composite material consisting of layers of glass and special chemical components and characterised by adjustable optical parameters, in particular opalescence, light transmittance and heat absorption (Mohamed, 2017; Cannavale *et al.*, 2020; Qahtan *et al.*, 2023). These properties change under the influence of external factors such as light intensity, temperature, mechanical impact or the application of electrical voltage. The use of smart glass in structures allows it to adaptively respond to climatic changes throughout the year by adjusting the level of transparency both manually and automatically under the influence of external environmental factors. Based on methods of analysis and generalisation of practical material, the author’s definition of the concept of “smart” glass was proposed: it is a multi-component interactive surface that changes its appearance (degree of transparency or audiovisual information) under the influence of external factors, becoming an element in the formation of an adaptive space. “Smart” glass is formed according to two leading systems: triplex consisting of two layers of glass (or polymer) and a layer of chemical material placed between them; and a single glass (and/or polymer, mirror) surface and an audiovisual information control system (projector, films, touch frames, etc.).

For the most effective implementation of smart glass in interior design, it is necessary to understand the specifics of this material, its varieties and technical capabilities. Modern design practice shows that, according to its functional purpose, “smart” glass can be classified into the following large groups: 1) glass for displaying audiovisual information; 2) glass for creating privacy and functional zoning of the interior; 3) glass for accumulating solar energy and transforming it into a space energy supply system (Table 1).

Table 1. Classification of “smart” glass by functional purpose

Purpose	For demonstration of audiovisual information			For creating privacy and zoning	For accumulation and transformation of solar energy
Type	Sensory	Holographic	Projection	Electrochromic	Photovoltaic
Application area	Information and advertising stands, functional and exhibition equipment, furniture.	Information and advertising stands, exhibition equipment.	Partitions in public interiors, exhibition equipment, information stands.	Partitions in public and residential interiors.	Windows in residential and public buildings.

Source: created by the authors

The group of glass with the ability to display audiovisual information includes sensory, holographic and projection “smart” glass. Among these types of “smart” glass, sensory glass is the most common. This type of glass is created by using a touch film or infrared frame that turns a monitor screen or ordinary glass into a touch screen. Sensory “smart” glass performs advertising and informational functions and allows a person to

control the audiovisual information displayed on the screen. Sensor systems are used in conjunction with a projection screen or LCD/plasma/LED monitor. Sensory screen control can be achieved in two ways: using iTouchScreen projection sensor film or iFrame infrared frames. Touch-sensitive “smart” glass is actively used in public interiors as information stands of various configurations, including flat horizontal panels (table

tops), wall-mounted information panels, and separately located blocks of various geometric shapes (Nabil & Kirk, 2019; Kysil & Krotova, 2024). Such objects are

most variably represented in museum and exhibition complexes, shopping and entertainment centres, and office interiors (Fig. 1).



Figure 1. Sensory “smart” glass in interior design

Note: a – VW Exposition Centre; b – “Porsche” Museum; c – Microsoft Centre

Source: Porsche “Mobilitätszentrum” (n.d.), Archilovers (2013), M.A. Hammadeh (2017)

In the design of the object-spatial environment, the use of interactive sensory “smart” glass is possible due to its combination with enclosing surfaces or portable objects and integration into stationary equipment (information stands). Thanks to the wide possibilities for integrating sensory “smart” glass into interior equipment, Ukrainian scientists I. Bondarenko *et al.* (2022) have identified the leading compositional techniques for placing such objects in public interiors: a checkerboard arrangement of three-dimensional forms; placement of objects along the compositional axes of the interior; grouping of objects with touch panels in the central part of the interior; placement of sensory objects around the perimeter of the space with a free central space; grouping of elements and their placement at an equal distance from the geometric centre of the interior; installation of sensory objects along a curved trajectory.

In residential interiors, the introduction of sensory “smart” glass is fragmentary. The inclusion of these innovations implements the concept of space technologisation, which is reflected in design proposals for interactive mirrors for bedrooms and bathrooms. Global design practice shows that the implementation of touch-sensitive objects is the most widespread and variable among all types of “smart” glass (Obeidat *et al.*, 2020; Bondarenko *et al.*, 2022; Ashou & Rashdan, 2023). This is due to the possibility of integrating panels with touch-sensitive “smart” glass into stationary interior equipment (furniture, partitions, advertising and information stands, etc.), which opens up new perspectives in the field of design development of environmental objects equipped with “smart” technologies. The spread of this type of glass is also influenced by the ability to add touch panels to an existing physical environment (when the inclusion of innovative technologies in the space was not planned at the design stage and during the initial equipping of the interior). In addition, the level of saturation and clarity of the image on the touch screen surface is significantly higher than the brightness

of visual effects created using video projection systems.

Despite the difference in the representation of visual information, projection technologies are also used as an element in the formation of the spatial environment. One option for implementing projection systems is holographic “smart” glass, which is transparent glazing with a special projection film applied to the surface, allowing the visual effect of holographic images to be achieved. Glazing (shop windows, partitions, advertising stands) imitates holographic images through the use of a projection screen. Transparent projection film allows any existing glass surface to be transformed into a high-quality “holographic” screen. ClearView transparent projection film is applied to any existing glass (similar to protective film). Objects behind the screen remain visible, while ensuring high brightness and image sharpness (Virtual On, n.d.). Holographic “smart” glass is used in shop windows and advertising displays, information stands, museum and exhibition spaces, hotels, and shopping and entertainment centres. Such glass is usually installed in interior spaces in such a way that there is space behind the glass surface. This further emphasises the transparency of the surface. Holographic images often become elements of advertising or an analogue of an information stand. Such objects attract the attention of visitors and are installed exclusively in public interiors (Fig. 2).

If holographic glass forms a projection behind which space can be observed, then projection “smart” glass creates an opaque layer with an audiovisual image. This technology is based on the implementation of a projection film that is applied to the surface of the glass (shop windows, windows, interior partitions) and transforms it into a screen for a projector of any size. This projection system includes components such as projectors (light image sources), a screen (makes the image visible), and a control system (generates images or videos, ensuring the transmission of information and commands from a personal computer or other media).

Projection films allow to turn any translucent surface into a projection screen. When using different types of projection films, it is possible to position the projector behind the screen (back projection) (Fig. 3) or in front

of the screen. The advantages of such films are: variability in size, transparency, cost-effectiveness, resistance to changing weather conditions, high contrast and image brightness.

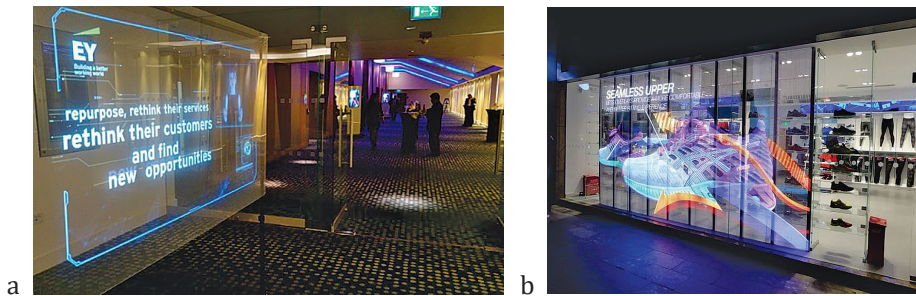


Figure 2. Holographic “smart” glass in interior design

Note: a – Hiltol Hotel; b – holographic “smart” glass in window display design

Source: Virtual On (n.d.), Ascend (n.d.)

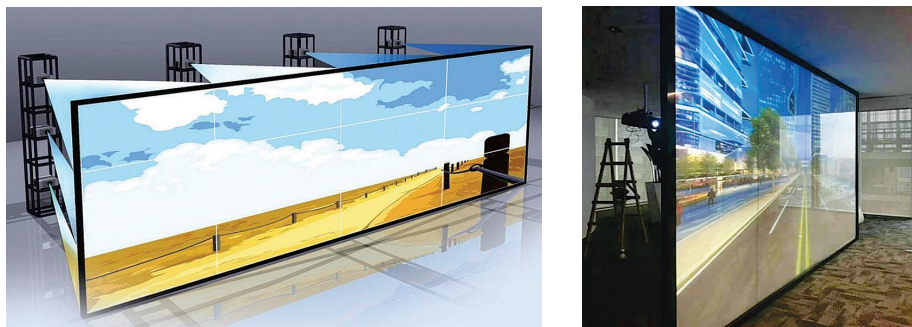


Figure 3. Projection “smart” glass system

Source: S. Mark (2021)

In the design of public interiors, “smart” glass can be used as an element of zoning the object-spatial environment, in particular in the form of interior partitions in offices, hospitals, shops and other establishments (Fig. 4). It can also be used to form entrance areas, for example in the design of shop windows and catering establishments. In addition, such glass can serve as an advertising medium in the form of billboards or

information stands in museum and exhibition complexes and shopping and entertainment centres, as well as an element that forms a distinctive artistic image of the premises. It should be noted that projection “smart” glass is most often used in public interiors, due to the multi-component nature of this system, the scale of the projections and the attractiveness of the visual effects, which can reproduce both static images and videos.

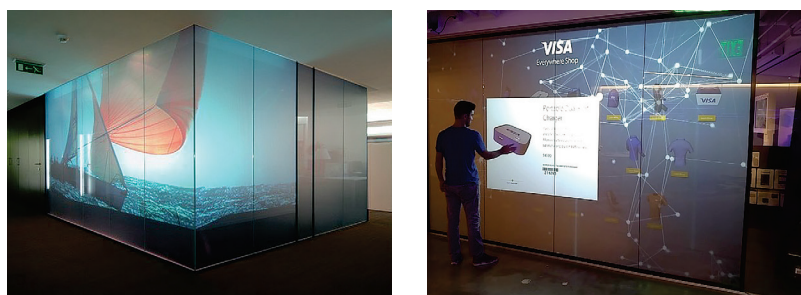


Figure 4. Projection “smart” glass in office interior design

Source: PlanBar (n.d.), Smart Glass Country (n.d.a)

The next group of “smart” glass, which is actively used in modern interior design, is glass for creating

privacy and functional zoning of space. This group includes electrochromic “smart” glass. It allows to change

the absorbing properties of a transparent surface. Under the influence of electrical voltage, the glass switches between two fixed modes: transparent and opaque (“milky” or darkened) (Binswanger Glass, 2017; Architectural Products, 2023). The change in the light transmission of

the glass surface is due to the introduction of a special liquid crystal electrochromic film, which is installed between two layers of glass (or polymer plexiglass) and, when connected to electricity, changes its state from a white opaque coating to transparent glass (Fig. 5).

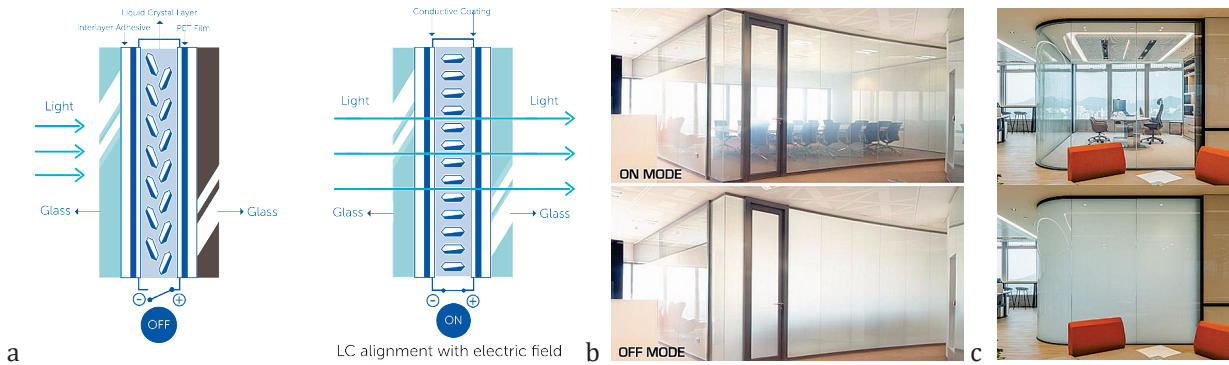


Figure 5. Electrochromic “smart” glass in public interior design

Note: a – principle of operation of “smart” glass with a liquid crystal layer (LC) electrochromic “smart” glass in a shopping centre; b, c – application of electrochromic “smart” glass in the interior of an office space
Source: Binswanger Glass (2017), A. Kavukcu (2017), Gauzy (2019)

The main advantages of this technology are low energy consumption, reduced lighting and air conditioning costs, material durability, safety for human health, and ease of use. Like projection glass, this type of glass is used for zoning spaces and in the interiors of office premises, hospitals, and residential spaces (Fig. 6) (Gavrilovic & Stojic, 2011). In addition to the introduction of electrochromic “smart” glass into the living environment, the use of photovoltaic (photoelectric) “smart” glass is becoming wide-

spread (Fig. 7). This type of glass accumulates solar energy and transforms it into a power supply system for the space. It is this technology that makes it possible not only to regulate the degree of transparency of the glass surface of the window, but also to provide additional electricity to the interior space of the room. Photovoltaic “smart” glass converts ultraviolet and infrared radiation into electricity, which is used to support human life inside the room (Cannavale *et al.*, 2020).



Figure 6. Application of electrochromic “smart” glass in residential interiors
Source: Smart Glass Country (n.d.b)

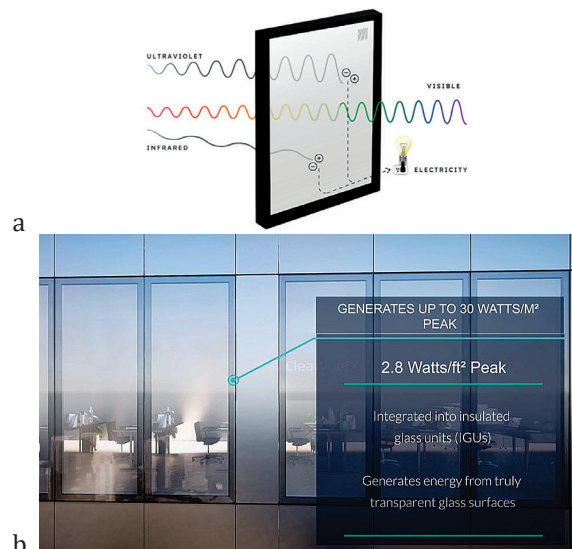


Figure 7. Photovoltaic “smart” glass
Note: a – principle of operation of photovoltaic “smart” glass; b – implementation of “smart” glass in architecture (facade fragment)
Source: Smart Glass World (n.d.), P. Segui (n.d.)

In terms of artistic and visual design in residential interiors, “smart” glass plays a secondary role, becoming a useful technology for creating a favourable environment for human life. Photovoltaic or electrochromic “smart” glass does not affect the artistic image of the interior. In public buildings, however, “smart” glass is subordinate to the overall style of the physical environment. Objects equipped with “smart” glass technology (stands, panels, display cases, furniture)

often become compositional accents of the space, which is associated with both the expressive form of the objects themselves and the interactivity of the integrated elements that change the transparency and/or audiovisual information on the surface. Based on the analysis of the project material, the leading techniques for implementing “smart” glass into the design of the object-spatial environment were identified (Table 2).

Table 2. Techniques for implementing “smart” glass into interior design

Technique	Location of implementation	Suitable types of “smart” glass	Goal
Creation of a solid glass surface in the object-spatial environment	Interior partitions, shop windows, windows, attic windows, and ceilings.	Electrochromic, projection, holographic, photovoltaic.	Attractiveness of the space (visualisation and advertising function); adaptive zoning; regulation of interior insolation and ecology (accumulation and utilisation of solar energy).
Fragmented inclusion of “smart” glass in stationary space equipment	Information stands, interactive mirrors.	Electrochromic, sensory, projection, holographic.	Attractiveness of the space; interactive presentation of information and adaptiveness of objects; visitor interaction experience with an interactive object; technologisation of the object-spatial environment.
Integration of “smart” glass with portable interior objects	Interior equipment and furniture.	Sensory.	Adaptiveness of objects; visitor interaction experience with an interactive object; technologisation of the object-spatial environment.

Source: compiled by the authors based on A. Nageib *et al.* (2020)

The use of “smart” glass in interior design has its own definitions depending on the functional purpose of the space. For public interiors, it is more common to include smart glass as an element in the creation of partitions, stands, and showcases. For residential spaces, the implementation of these “smart” systems is typical in window openings and in bathrooms and bedrooms (interactive mirrors and panels). The implementation of this technology is one of the means of forming an adaptive object-spatial environment, where visitors and/or employees of public institutions have the opportunity to adjust the audiovisual image on the surface of objects equipped with sensory and projection “smart” glass, the degree of transparency of partitions with electrochromic “smart” glass, and the insolation of the space (when windows are equipped with “smart” glass technologies).

According to scientific research by S. Nundy *et al.* (2021) and A. Hatem *et al.* (2024) on the implementation of photovoltaic “smart” glass in office spaces, it was found that the use of such technology contributes to improving the microclimate in the interior and working conditions, saving electricity, solving the problem of solar energy accumulation and its use in the maintenance of public buildings, which is confirmed by the author’s research. It should be noted that the scientific research of S. Nundy *et al.* (2021) and A. Hatem *et al.* (2024) are thorough works focused on the technical and technological aspects of the functioning and advantages of introducing “smart” glass into public interiors.

However, the issue of implementing such technologies in the residential spatial environment remains unresolved. An analysis of completed projects (Smart Glass Country, n.d.b; Binswanger Glass, 2017) has shown that in residential spaces, this technology also aims to save energy and promote environmental friendliness, where rational energy consumption is becoming an increasingly pressing issue. In addition, the introduction of this technology makes it possible to avoid using textiles on windows if the interior design style calls for a minimalist approach or if the internal layout of the space does not allow for the use of textiles to decorate window openings (complex architecture, lack of room height, designed curvature of surfaces, etc.). The absence of textiles on windows may also be due to the customer’s desire – allergies to dust that actively accumulates on textiles, the presence of pets that can damage expensive textiles, etc. In this case, the introduction of “smart” glass may be a viable alternative to more traditional solutions. These conclusions are consistent with the provisions of the theoretical model of tectonics of modern architectural forms proposed by A. Davydov *et al.* (2024), where integrativity, adaptability, and environmental friendliness are identified as key principles of modern architectural thinking.

According to scientific research by A. Mukherjee *et al.* (2023), it has been determined that in the fields of architecture and construction, the introduction of “smart” materials can be carried out either separately or in combination with traditional materials. The

authors noted that in the near future, priority in the field of architecture and construction will be given to innovative materials that are functional, versatile, economical, and environmentally friendly. As confirmed by the authors' research, "smart" glass, which is one of the innovative developments in the field of energy efficiency, environmental friendliness and multifunctionality of materials, fully meets this requirement. As a result of theoretical research by M. Yildirim & Z. Candan (2023), six types of "smart" materials were identified: shape memory materials, piezoelectric materials, magnetostrictive materials, electrorheological and magnetorheological fluids, and self-healing materials. Among these types of "smart" materials, self-healing materials are widespread and have the potential to increase service life. This definition was confirmed by the authors' research: when analysing the characteristics of such types of "smart" glass as electrochromic and photovoltaic, it became clear that these materials are self-healing – their appearance and internal physical properties (after use) return to their original values.

According to a study by A.S.Y. Mohamed (2017), "smart" glass is one of the options for finishing (non-construction) materials, which is divided into active and passive. This classification is based on the presence or absence of an electrical stimulus that activates such glass. Based on the results of the study, the author notes that "smart" glass is suitable for use in the decoration of windows, doors, partitions, and solar roofs. These conclusions are confirmed by the authors' research, which found that, in addition to the above-mentioned areas, "smart" glass is also suitable for use in information and advertising stands, furniture elements, shop windows, and exhibition equipment in museums and exhibition centres, where "smart" glass becomes an element in the creation of a modern, attractive and interactive space. This issue was considered in the work of L. Bassey *et al.* (2025), where the authors analysed the possibilities of creating an adaptive interior through the introduction of "flexible" partitions. The work discussed various methods of creating an adaptive space through the regulation of temperature, insolation and energy conservation. However, such an innovation as "smart" glass, which solves these problems, has been overlooked by scientists.

The analysis of the implementation of "smart" systems in the formation of the space of an architectural object was carried out in the theoretical studies of R. Chasta *et al.* (2016). The authors studied the technical aspects of the implementation of modern smart systems (structural designs, adaptive control and automated space maintenance technologies, etc.) and promising developments in this field, based on the economic, environmental and functional advantages of smart technologies and the growing needs of users for comfort, aesthetics and safety in residential and public spaces. These aspects were considered in the work

of M. Hu (2020), which outlined the history of the creation of "smart" buildings, analysed the prospects for the implementation of "intelligent" technologies in the architecture of civil structures and determined their multifunctionality. These results were confirmed by the author's research, which determined that "smart" glass meets the requirements for the formation of an innovative adaptive object-spatial environment.

According to the results of a study by S. Kysil & T. Krotova (2024), it was found that Ukrainian society currently has a pressing need to create an inclusive space saturated with interactive technologies. One of the main tasks that these innovative technologies solve is the activation of all human senses in the object-spatial environment, which is especially relevant for people with special health needs. The results of the work by S. Kysil & T. Krotova were confirmed by the authors' research in the field of implementing "smart" glass as an element in the creation of touch screens and panels for public interiors such as shopping centres, museums, exhibition centres and educational centres.

Modern innovative technologies and "smart" materials have opened up new opportunities for designers and architects in the field of organising the spatial environment of residential and public spaces. It has been found that "smart" glass, as one of the innovative developments of the 21st century, has become one of the elements in the formation of an adaptive spatial environment, because when it is used, the user can change the audiovisual information on its surface as needed, select the transparency mode of the glass, or regulate the energy supply of the home.

CONCLUSIONS

A review of scientific publications and examples of the use of "smart" glass has allowed to identify the advantages of smart technologies that influence the design of the physical environment: adaptability; energy efficiency; environmental friendliness; variability of "smart" glass sizes (from small integrated panels to large interactive surfaces); the ability to create planes of varying curvature (both flat shapes and curved surfaces); representation of audiovisual information on the glass surface using various media. The study found that, in terms of functional purpose, "smart" glass can be classified into three main groups: glass for displaying audiovisual information; glass for creating privacy and functional zoning of the interior; glass for accumulation. The work also outlines the main techniques for integrating "smart" glass into design: creating solid glass planes in the object-spatial environment, fragmentary inclusion in stationary equipment, and combination with portable interior objects. The above-mentioned advantages and areas of application of "smart" glass demonstrate the wide possibilities for implementing this technology in the interior design of residential and public spaces, where the formation of a

modern adaptive spatial environment is an important requirement. The results of this work can serve as a basis for further scientific research aimed at analysing the formation of certain types of public interiors, in particular office premises, museum and exhibition complexes, or shopping and entertainment centres. It should be noted that the issue of introducing innovative technologies in the formation of an adaptive object-spatial environment for persons with disabilities is relevant, therefore further scientific research can be conducted based on the principle of matching technical innovations to the physiological needs of persons with disabilities, guided by ergonomic, functional, structural, and psychological indicators.

REFERENCES

- [1] Abdelaal, M. (2022). *Smart systems as an approach to design of sustainable architectural spaces – administrative buildings in Egypt as a case study*. (Master thesis, Tanta University, Tanta, Egypt). doi: [10.13140/RG.2.2.26510.84802](https://doi.org/10.13140/RG.2.2.26510.84802).
- [2] Al Alim, M., Hore, S., Zohora, F., Ghosh, D., & Hore, R. (2025). Advances in smart polymeric materials for sustainable and next-generation applications. *Civil Engineering & Building Science*, 2(1), 1-8. doi: [10.26855/cebs.2025.06.001](https://doi.org/10.26855/cebs.2025.06.001).
- [3] Archilovers. (2013). *Microsoft briefing center. Coast office architecture*. Retrieved from <https://www.archilovers.com/projects/88879/microsoft-briefing-center.html>.
- [4] Architectural Products. (2023). *Smart glass*. Retrieved from <https://www.arch-products.com/glass-walls-partitions/product/33016238/smart-glass>.
- [5] Ascend. (n.d.). *Retail. Consumers are craving experiences – not just a transaction*. Retrieved from <https://ascendstudios.com/retail/>.
- [6] Ashou, A.F., & Rashdan, W. (2023). Smart technologies in interior design. *The International Journal of Designed Objects*, 18(1), 39-59. doi: [10.18848/2325-1379/CGP/v18i01/39-59](https://doi.org/10.18848/2325-1379/CGP/v18i01/39-59).
- [7] Basse, L., Mfon, I., & Aniefiok, C. (2025). Adaptive partitioning systems in architecture: Advancing flexible, sustainable, and climate-responsive interior environments. *International Journal of Development, Sustainability and Environmental Management*, 6(2), 34-44. doi: [10.5281/zenodo.16737806](https://doi.org/10.5281/zenodo.16737806).
- [8] Binswanger Glass. (2017). *Switchable glass*. Retrieved from <https://www.binswangerglass.com/blog/switchable-glass/>.
- [9] Bondarenko, I., Bryzhachenko, N., Lahoda, O., & Tokar, M. (2022). Interactive multimedia objects in public interiors: Compositional location techniques. *Journal Architecture Civil Engineering Environment*, 15(1), 5-18. doi: [10.21307/ACEE-2022-001](https://doi.org/10.21307/ACEE-2022-001).
- [10] Cannavale, A., Ayr, U., Fiorito, F., & Martellotta, F. (2020). Smart electrochromic windows to enhance building energy efficiency and visual comfort. *Energies*, 13(6), article number 1449. doi: [10.3390/en13061449](https://doi.org/10.3390/en13061449).
- [11] Chasta, R., Singh, C., Gehlot, A., Mishra, R.G., & Choudhury, S. (2016). A smart building automation system. *International Journal of Smart Home*, 10(9), 217-224. doi: [10.14257/ijsh.2016.10.9.20](https://doi.org/10.14257/ijsh.2016.10.9.20).
- [12] Chen, Q., Jovanova, J., & Kalpoe, T. (2024). Design of mechanically intelligent structures: Review of modeling stimuli-responsive materials for adaptive structures. *Heliyon*, 10(14), article number e34026. doi: [10.1016/j.heliyon.2024.e34026](https://doi.org/10.1016/j.heliyon.2024.e34026).
- [13] Davydov, A., Boborykin, O., Hniloskurenko, M., Cherniavskiy, V., & Tiutina, L. (2024). Formation of the principles of tectonics of modern architectural forms. *Architectural Studies*, 10(2), 136-148. doi: [10.56318/as/2.2024.136](https://doi.org/10.56318/as/2.2024.136).
- [14] Gauzy. (2019). *How PDLC Technology Works*. Retrieved from <https://www.gauzy.com/how-pdlc-technology-works/>.
- [15] Gavrilovic, D., & Stojic, J. (2011). Usage of “smart” glass panels in commercial and residential buildings. *Facta Universitatis – Series. Architecture and Civil Engineering*, 9(2), 261-268. doi: [10.2298/FUACE1102261G](https://doi.org/10.2298/FUACE1102261G).
- [16] Hammadeh, M.A. (2017). VW Knowledge_Gate. *Flickr*. Retrieved from <https://www.flickr.com/photos/153553495@N07/34299819781/>.
- [17] Hassan, M., Alaa, S., & Sherief, F. (2025). Assessment of retrofitting smart glass on office building Façade to enhance thermal comfort and energy consumption in hot arid climates (Case study in Egypt). *Ain Shams Engineering Journal*, 16(5), article number103333. doi: [10.1016/j.asej.2025.103333](https://doi.org/10.1016/j.asej.2025.103333).

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- [18] Hatem, A., Salem, H.S., & Aysha, T.S. (2024). The impact of using electrochromic sensitive smart glass in building facades to reduce solar heat gain in hot climate zones in Egypt. *Journal of Al-Azhar University Engineering Sector*, 19(72), 476-505. doi: [10.21608/aej.2024.259134.1573](https://doi.org/10.21608/aej.2024.259134.1573).
- [19] Hu, M. (2021). *Smart technologies and design for healthy built environments*. Cham: Springer. doi: [10.1007/978-3-030-51292-7](https://doi.org/10.1007/978-3-030-51292-7).
- [20] Kavukcu, A. (2017). *Smart glass*. Retrieved from <https://malzemedunyasi.wordpress.com/2017/08/04/akilli-camlar/>.
- [21] Kysil, S., & Krotova, T. (2024). Interactive, multimedia, and sensory technologies in accessible interior design. *Theory and Practice of Design*, 34, 300-308. doi: [10.32782/2415-8151.2024.34.33](https://doi.org/10.32782/2415-8151.2024.34.33).
- [22] Mark, S. (2021). *How switchable PDLC glass working as projection screen?* Retrieved from <https://www.pdlcglass.com/how-pdlc-glass-working-as-screen/>.
- [23] Mohamed, A.S.Y. (2017). Smart materials innovative technologies in architecture; towards innovative design paradigm. *Energy Procedia*, 115, 139-154. doi: [10.1016/j.egypro.2017.05.014](https://doi.org/10.1016/j.egypro.2017.05.014).
- [24] Mukherjee, A., Srivastava, P., & Singh, D. (2023). Application of smart materials in civil engineering: A review. *Materials Today Proceedings*, 81(2), 350-359. doi: [10.1016/j.matpr.2021.03.304](https://doi.org/10.1016/j.matpr.2021.03.304).
- [25] Nabil, S., & Kirk, D. (2019). Interactive interior design and personal data. In H. Schnädelbach & D. Kirk (Eds.) *People, personal data and the built environment* (pp. 103-122). Cham: Springer. doi: [10.1007/978-3-319-70875-1_5](https://doi.org/10.1007/978-3-319-70875-1_5).
- [26] Nageib, A., Elzafarany, A.M., Elhefnawy, M.H., & Mohamed, F.O. (2020). Using smart glazing for reducing energy consumption on existing office building in hot dry climate. *HBRC Journal*, 16(1), 157-177. doi: [10.1080/16874048.2020.1794226](https://doi.org/10.1080/16874048.2020.1794226).
- [27] Nundy, S., Mesloub, A., Alsolami, B., & Ghosh, A. (2021). Electrically actuated visible and near-infrared regulating switchable smart window for energy positive building: A review. *Journal of Cleaner Production*, 301, article number 126854. doi: [10.1016/j.jclepro.2021.126854](https://doi.org/10.1016/j.jclepro.2021.126854).
- [28] Obeidat, A., Al-Nabawi, H., Hashem, O., & El-Said, H. (2020). The impact of using interactive interior design on enhancing the performance of clothing shop. *Journal of Design Sciences and Applied Arts*, 1(1), 146-153. doi: [10.21608/jdsaa.2020.70460](https://doi.org/10.21608/jdsaa.2020.70460).
- [29] PlanBar. (n.d.). *Smart glass*. Retrieved from <https://www.planbar.com/en/products/smart-glass/>.
- [30] Porsche "Mobilitätszentrum". (n.d.). Retrieved from <https://www.traumwelt.tv/projekte/prosche-mobilitaetszentrum>.
- [31] Qahtan, A.M., Almawgani, A.H.M., & Ghosh, A. (2023). Smart double glazing integrated polymer dispersed liquid crystal for enhancing building's thermal performance in hot-arid climate. *Journal of Building Engineering*, 80, article number 107971. doi: [10.1016/j.jobe.2023.107971](https://doi.org/10.1016/j.jobe.2023.107971).
- [32] Segui, P. (n.d.). *Solar or photovoltaic windows: The future of solar windows*. Retrieved from <https://ovacen.com/en/photovoltaic-solar-windows/>.
- [33] Smart Glass Country. (n.d.a). *Converting your windows into a projection screen with smart glass and smart film*. Retrieved from <https://www.smartglasscountry.com/news/convert-windows-projection-screen>.
- [34] Smart Glass Country. (n.d.b). *Designing interior elements with smart glass and smart film*. Retrieved from <https://www.smartglasscountry.com/news/interior-design-smart-glass>.
- [35] Smart Glass World. (n.d.). *What is transparent photovoltaic smart glass?* Retrieved from <https://www.smartglassworld.net/what-is-photovoltaic-smart-glass>.
- [36] Virtual On. (n.d.). *Transparent 3D holographic projection screens*. Retrieved from <https://virtualongroup.com/3d-holographic-projection-screens/>.
- [37] Xu, S. (2024). Future-oriented trends in intelligent building materials and applications. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1-16. doi: [10.2478/amns-2024-2220](https://doi.org/10.2478/amns-2024-2220).
- [38] Yildirim, M., & Candan, Z. (2023). Smart materials: The next generation in science and engineering. *Materials Today Proceedings*. doi: [10.1016/j.matpr.2023.10.116](https://doi.org/10.1016/j.matpr.2023.10.116).
- [39] Zhou, Y., Fan, F., Liu, Y., Zhao, S., Xu, Q., Wang, S., Luo, D., & Long, Y. (2021). Unconventional smart windows: Materials, structures and designs. *Nano Energy*, 90(Part B), article number 106613. doi: [10.1016/j.nanoen.2021.106613](https://doi.org/10.1016/j.nanoen.2021.106613).

Інтерактивне «розумне» скло як елемент формування адаптивного предметно-просторового середовища

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Анотація. «Розумне» скло як новий матеріал із функціональними та візуальними перевагами привертає увагу архітекторів і дизайнерів, відкриваючи нові можливості для сучасних інтер'єрів. Зростання кількості проєктів і відсутність узагальненого досвіду визначили актуальність дослідження. Метою роботи став аналіз тенденцій впровадження інтерактивного «розумного» скла в дизайн інтер'єру житлового та громадського призначення, визначення його класифікації та функціонально-утилітарних можливостей в аспекті формування адаптивного предметно-просторового середовища. Дослідження базувалося на комплексі загальнонаукових теоретичних методів пізнання, що включало впровадження таких методів як аналіз, синтез, класифікація та узагальнення. Надано авторську дефініцію поняття «розумне» скло в аспекті формування адаптивного простору. На основі аналізу практичного матеріалу було систематизовано «розумне» скло за функціонально-утилітарними можливості при формуванні адаптивного предметно-просторового середовища. В результаті роботи були визначені прийоми впровадження різних видів «розумного» скла в дизайн інтер'єру житлового та громадського простору. Встановлено, що найпоширенішими є сенсорні та проєкційні технології, які формують візуально-комунікативне середовище в публічних просторах. У житлових інтер'єрах «розумне» скло виконує переважно утилітарну функцію, сприяючи енергозбереженню та приватності. Результати також підтвердили естетичний і функціональний потенціал «розумного» скла як елемента адаптивного простору. Систематизація матеріалу щодо впровадження «розумного» скла в сучасний інтер'єр дасть змогу українським архітекторам і дизайнерам застосовувати теоретичні знання у проєктній практиці для створення інтерактивного предметно-просторового середовища. Представлені теоретичні напрацювання можуть слугувати основою для прогностичних дизайн-рішень із використанням окремих видів «розумного» скла

Ключові слова: дизайн інтер'єру; інновації; «смарт»-технології в дизайні середовища; технологізація простору; сучасні тенденції



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Typological and factor analysis of personality in the context of architectural design

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Abstract. Contemporary development of architecture and design is characterised by a growing demand for environments that consider not only functional and aesthetic aspects but also the psychological characteristics of users. The relevance of the study lies in the need to integrate individual psychological traits into design solutions to ensure comprehensive human comfort. The purpose of the study was to develop a methodological approach to create a personalised architectural environment based on the Big Five model, which allows correlating personality traits with specific spatial, colouristic, material, and lighting parameters. The study employed methods of scientific literature analysis, logical-semantic comparison, generalisation, case analysis, and visualisation of results. Eight leading personality theories were examined and subjected to comparative analysis in terms of their applicability to design practice. Tables were developed to demonstrate the correspondence between psychological characteristics and design solutions, particularly the influence of the Big Five traits on the choice of spatial layouts, colour palettes, materials, and lighting scenarios. Examples were created to illustrate the adaptation of interiors and public spaces to user profiles with varying levels of openness to experience, extraversion, agreeableness, conscientiousness, and neuroticism. The results confirmed that a personalised approach enhances emotional comfort, productivity, and psychological well-being, while also ensuring a balance between individual and collective needs. The practical value of the study lies in the development of a system of recommendations for architects and designers, aimed at shaping individually comfortable, flexible, and psychologically balanced environments in residential, office, and urban architecture

Keywords: psychological profile; environment personalisation; comfort; spatial solutions; colouristics; architectural design; interior adaptation

INTRODUCTION

Contemporary trends in design and architecture increasingly prioritise individualised approaches that consider not only aesthetics but also the psychological characteristics of the individual. A visually appealing space may prove emotionally uncomfortable if it does not meet the resident's needs. The integration of a psychological profile – particularly the Big Five model – into spatial design opens a new level of comfortable and functional environments. Therefore, the topic of targeted psychological customisation in design is highly relevant to the development of the field, which aims to create spaces that are not only beautiful but also psychologically harmonious.

In contemporary research, growing attention is paid to the relationship between a person's personality traits and architectural – design decisions. Y. Xu & T. Yu (2022) outlined how analysing psychological factors can help to understand how design is perceived at the sensory level, using artificial intelligence to visualise reactions to spatial solutions. X. Li *et al.* (2023) showed that traits such as extraversion, neuroticism, and openness to experience significantly influence aesthetic preferences, material choices, and behavioural responses within a space. Building on these findings, Z. Huang (2024) developed an adaptive interior design method for different MBTI personality types using generative artificial

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intelligence, while K. Zhou & T. Wang (2024) proposed scalable approaches for creating personalised interiors through AI-driven solutions. Similar conclusions were reached by M. Skorik & M. Kozlovska (2025), who confirmed that architectural preferences are closely linked to personality types, reinforcing the relevance of integrating psychological profiles into design practice. This growing body of research creates a strong foundation for the development of personalised design adapted to the individual psychological profiles of users.

A distinct research area focused on the impact of the architectural environment on emotional well-being and human productivity. For instance, J.G. Allen & J.D. Macomber (2020) demonstrated that parameters of indoor spaces – such as lighting, acoustics, and proportions – directly correlate with cognitive functions, influencing concentration and decision-making. Subsequent research has confirmed that the lighting environment is a key factor in shaping psychological comfort. In particular, Y. Fan *et al.* (2023) proposed a personalised daylighting regulation method that employs user-involved paintings to adjust natural light levels and quality according to individual needs. This approach significantly enhanced visual comfort and the aesthetic perception of interior spaces. The findings demonstrated that engaging users in the modelling of lighting conditions enables the creation of more flexible and psychologically harmonious interiors that can respond to diverse personality profiles.

Ukrainian research also addresses the connection between interior design solutions and the psychological state of users. For example, V.A. Vorobiova (2025) developed a conceptual interior design project for a rehabilitation centre for military personnel, placing special emphasis on creating a supportive psychological environment through the selection of colour schemes, lighting, and ergonomic solutions. V. Abyzov & D. Sheiko (2024) studied the influence of interior design on the psychological well-being of employees in contemporary offices, finding that a combination of natural lighting, flexible planning, and biophilic elements increases productivity and reduces stress.

Thus, the literature review confirmed the relevance of integrating typological and factor-based personality models into architectural design practice. Current research opened possibilities for personalising spaces according to the user's psychological profile. Given the trends identified by researchers and the insufficient practical comprehensiveness of previous works, the purpose was defined as developing a systematic approach that translates personality traits, as described by the Big Five model, into specific design solutions for interiors.

MATERIALS AND METHODS

The study was conducted based on an interdisciplinary analysis of scientific sources for 2020-2025 on the relationship between personality traits and

architectural and design solutions. The methodological foundation consisted of eight leading psychological theories and personality models: S. Freud's (1923) psychoanalytic concept, C.G. Jung's (1921) typology and archetypes, I.B. Myers & K.C. Briggs' (1985) type indicator, socionics developed by A. Augustinavičiute (1995), A.H. Maslow's (1943) hierarchy of needs, R.B. Cattell (1946) and G.W. Allport (1937) model, H.J. Eysenck's (1967) theory, and the Big Five model proposed by P.T. Costa & R.R. McCrae (1992). This helped the research to integrate deep existential and motivational frameworks with data-driven systems of classification, offering both theoretical richness and practical applicability. The choice of methodological approach was determined by the purpose of the study. To analyse the relevance of the typologies, the following criteria were applied:

1. The presence of a connection with human needs.
2. The identification of personality dominants in spatial behaviour.
3. The potential for application in design practice.

The research materials included scientific studies on personality psychology, architectural theory, and design theory, and publications from related disciplines such as sociology, cultural studies, and cognitive science. This transdisciplinary scope ensured that the study did not limit itself to the psychological dimension but also accounted for socio-cultural dynamics and symbolic structures embedded in spatial experience. The results were obtained through critical analysis and data synthesis, which allowed formulating a substantiated conclusion regarding the advisability of further developing the concept of a personality-oriented architectural environment. However, it was important to recognise that the use of psychological models in design has certain limitations. First, the results of psychological testing depend on the respondent's subjectivity. Second, excessive personalisation may reduce the universality of the space.

RESULTS AND DISCUSSION

The design of a comfortable environment involves the comprehensive development of a spatial-object composition in which functional, aesthetic, and sensory parameters are harmoniously aligned with the individual needs of the user. Consideration of personality type, lifestyle, and value orientations allows creating a space that is not only convenient but also artistically expressive. It is particularly important to identify universal factors that reflect differences in the hierarchy of needs and emotional expectations of individuals, using personality theory as a starting point. When designing an environment, the architect or designer must recognise that their decisions affect a person with a unique inner world and an individual perception of spatial rhythm, colour, and texture. In this context, the concept of personality becomes a tool not only for classifying

users but also for translating psychological characteristics into specific design parameters – from the choice of colour schemes and lighting to the scale of furniture and the plasticity of forms.

Psychology offers numerous personality theories, but not all of them are directly applicable to artistic and spatial design. For example, S. Freud’s psychoanalytic theory, despite their in-depth interpretation of internal conflicts and motivations, are difficult to translate into the architectural language of colour, light and shadow, and composition. In contrast, other approaches – especially those describing temperament, activity level, need for control, or social openness – have direct design analogues. For instance, an introvert with high conscientiousness may feel comfortable in zoned spaces with subdued lighting and natural materials, whereas an extrovert with high openness to experience may thrive in open-plan layouts, vibrant colours, and dynamic compositions. From the 1950s

to the 2025, psychologists have developed typologies that help to predict human responses in various spatial conditions. None of them is absolutely universal; however, some models can be effectively adapted for applied design – particularly those that define the hierarchy of needs, dominant emotional states, and styles of interaction with the environment. For architects and designers, these models can serve as a methodological basis for creating individually oriented interiors and urban spaces, where proportions, colour, light, and texture operate as the visual-emotional code of personality. Table 1 summarised key personality theories, comparing them by approach type, main characteristics, strengths, and potential applications in architectural and design practice. Such a comparative overview helps to identify the most relevant models for developing a subject-oriented comfortable environment in which psychological traits form the basis for both artistic and functional solutions.

Table 1. Comparative table of personality theories in the context of architectural design

Theory	Key concepts	Advantages	Limitations	Application in design
Freudism	Behaviour is driven by the conflict between the conscious and unconscious. Focus on instincts and repressed experiences.	Deep understanding of subconscious motivations.	Subjectivity, difficult to empirically verify.	Designing environments with elements that enhance safety and emotional protection.
C.G. Jung / Archetypes	Personality consists of the ego, personal, and collective unconscious. Archetypes influence world perception.	Ability to work with deep imagery, cultural universality.	Difficulty in defining precise boundaries of archetypes.	Use of archetypes in visual solutions to meet users’ emotional expectations.
I.B. Myers & K.C. Briggs (MBTI)	16 personality types based on four dichotomies (E/I, S/N, T/F, J/P).	Popular, practical, easy to use.	Lacks depth, focuses on description rather than causality.	Typology helps to predict space usage style (e.g., introverts – need isolation, calm).
A. Augustinavičiute / Socionics	16 sociotypes based on information metabolism.	Models type interaction, considers group dynamics.	Lacks empirical verification.	Useful in designing multi-user spaces: hostels, co-working areas.
A.H. Maslow	Hierarchy of needs – from basic to self-actualisation.	Structures personality demands by levels.	Does not account for individual differences in priorities.	Designing environments by comfort levels: from physical to aesthetic.
R.B. Cattell / G.W. Allport	Factor model of personality (16 traits).	Accurate identification of traits, flexibility.	Difficult to apply practically without testing.	Can be a basis for personalised design for specific users.
H.J. Eysenck	Three main factors: extraversion, neuroticism, psychoticism.	Empirically validated, simple model.	Limited number of dimensions.	Adapting design to user’s arousal/emotional reactivity level.
Big Five	Five main traits: openness, agreeableness, conscientiousness, extraversion, neuroticism.	Standardised, scalable, suitable for mathematical analysis.	May be culturally dependent, lacks motivational dimension.	Scalable personalisation: defining optimal stimulation, openness level, etc.

Source: developed by the author based on O.B. Stoliarenko (2012)

The psychoanalytic concept, initiated by S. Freud and developed by C.G. Jung, presents personality as a dynamic interaction between conscious and unconscious. While valuable for understanding human behaviour, these theories are difficult to formalise and have limited direct design application. However, C.G. Jung's archetypes provided a foundation for contemporary typologies. Typological theories such as Myers-Briggs, socionics, or Keirsey's classify individuals by psychological preferences, enabling prediction of behavioural tendencies and modelling user group needs. They are used in HR and education, and increasingly in design. The dispositional approach (G.W. Allport, R.B. Cattell, H.J. Eysenck) focused on stable traits in various situations. While assessing predispositions, it rarely considers needs hierarchy or deep motivation, limiting architectural relevance.

The cognitive approach studies perception, thinking, decision-making, and environmental response. It

underlies the Myers-Briggs typology and is relevant for designing tech-saturated environments, offices, or educational spaces where cognitive style matters. Humanistic theory, particularly A.H. Maslow's hierarchy of needs, is highly relevant to architectural design. It links comfort with satisfying physiological and safety needs before social, esteem, and self-actualisation needs. This enables creating environments that meet basic convenience while fostering psychological and emotional growth. Analysis of major theories revealed a common four-level structure – physiological, psychological, social, and spiritual. This supported the idea that comfortable environments should address all four, with proportions varying by dominant personality type. Table 2 summarised the relationship between dominant personality level, its core need, and resulting spatial requirements, guiding designers toward key characteristics of comfort for each personality dimension.

Table 2. Dominant personality levels, needs, and corresponding spatial requirements

Dominant personality level	Dominant need	Dominant spatial requirements
Physiological level	Order	Structured organisation, proportionality, safety.
Psychological level	Belonging	Prestige, self-sufficiency, identification with the environment.
Social level	Individualism	Transformability, presence of open communication spaces.
Spiritual lever	Freedom	Harmony, flexibility, space for reflection and inspiration.

Source: developed by the author

However, all of the aforementioned concepts, despite their informativeness and broad scope, share one significant limitation: they identify only the dominant personality traits without providing an exact measurement of a person's position along the continuum of each psychological characteristic. In other words, most typologies operate with dichotomies (e.g., extraversion-introversion) without the possibility of establishing an intermediate value, which reduces the accuracy of modelling a user within a given environment. A distinct place among contemporary approaches to studying personality is occupied by the Five-Factor Model, commonly known as the Big Five or OCEAN. This is a hierarchical model of personality describing five core traits: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Unlike typological models, the Big Five allows for the quantitative assessment of each trait along a scale – from minimal to maximal expression – making it suitable for precise customisation of design solutions to the individual user profile. In the context of art and design, this model has a key advantage: each personality trait can be translated into a set of spatial and visual parameters.

Openness to experience – often associated with a need for dynamic forms, bold contrasts, experimental

materials, and unconventional planning solutions. High openness aligns with interiors featuring art objects, bespoke décor, and transformable zones, whereas low openness gravitates toward classical proportions, restrained colour palettes, and predictable geometry. Conscientiousness – reflected in a preference for orderly spaces, symmetry, and clearly structured zoning. Users with high conscientiousness favour furniture with precise geometry, harmonious lighting rhythms, and logical sequences of colour accents. Extraversion – associated with open-plan layouts, spacious living areas, vivid colour schemes, and abundant natural light. For extraverts, the communicative function of space is crucial: bar counters, large communal tables, and interactive zones. Agreeableness – expressed through warm colour palettes (pastels and natural tones), soft textures, and comfortable areas for social interaction. Design for highly agreeable individuals often incorporates semi-private spaces for small-group conversations. Neuroticism – linked to a need for psychological stability. Users high in neuroticism prefer interiors with subdued lighting, minimal visual stimuli, calm colour schemes, and reduced acoustic chaos.

Through the Big Five's scalar approach, an architect can develop a "psychological interior profile" in which

each trait corresponds to specific colour, texture, and spatial solutions. For instance, in a home shared by one partner who is a highly open extravert and another who is a highly conscientious introvert, the design might combine an open, vibrant living area with intimate personal offices, contrasting the bright social zone with a restrained individual space. Thus, the Big Five not only identifies personality traits but also translates them into concrete visual and functional design elements. This makes the model a universal tool for adaptive

design focused on user comfort and emotional well-being. An analysis of the main personality theories within the typological (C.G. Jung, I.B. Myers & K.C. Briggs, A. Augustinavičiute) and factor-based (Big Five) approaches reveals both shared features and fundamental differences between them (Table 3). All models address a similar set of basic personality characteristics – such as extraversion, intuition, sensing, logic, emotionality, and rationality – yet the methods of describing these traits vary significantly.

Table 3. Comparison of personality components in major personality theories

Typological analysis	Factor analysis	Carl Jung's theory	Myers-Briggs typology	Socionics / Big Five	Dominant need for this trait
Extraversion / Introversion	Extraversion	Extraversion / Introversion	Extraversion / Introversion	Extraversion / Introversion	Social comfort (the need for an appropriate level of social interaction)
Intuition / Sensing	Openness to experience	Intuition / Sensing	Intuition / Sensing	Intuition / Sensing	Emotional comfort (the need for a stable emotional background)
Feeling / Thinking	Agreeableness	Feeling / Thinking	Feeling / Thinking	Ethics / Logic	Psychological comfort (the need for inner balance)
Rationality / Irrationality	Conscientiousness	Rationality / Irrationality	Rationality / Irrationality	Rationality / Irrationality	Psychological, physical comfort (the need for alignment of space with lifestyle)
-	Neuroticism	-	Dynamic / Static	Neuroticism	Emotional, psychological, social, physical comfort (the need for security and stability)

Source: developed by the author

The column “Dominant need for this trait” emphasised how each personality dimension translates into specific requirements for spatial experience. Extraversion and introversion are primarily associated with social comfort, reflecting the need for an appropriate level of interaction or privacy. Intuition and sensing are linked to emotional comfort, since intuitive individuals tend to favour experimental and dynamic environments, whereas sensing individuals prefer stability and clarity. Thinking and feeling are associated with psychological comfort, balancing logic and structural order with emotional atmosphere. Rationality and irrationality correspond to both psychological and physical comfort, determining whether users require strict organisation or flexibility and adaptability in spatial design. Neuroticism is connected to complex comfort, encompassing emotional, psychological, social, and physical dimensions, as individuals with high neuroticism are particularly sensitive to instability, and therefore, need environments that ensure security and stability.

The typological approach operates with dichotomies – traits that have two polar values (e.g., extraversion or introversion, intuition or sensing). In design practice, this is convenient for a quick “sketch” analysis of the client and for shaping a general concept. For

example, in typological interpretation, an introvert will tend toward intimate spaces, subdued colour palettes, and structured lighting, whereas an extravert will prefer open layouts, saturated colours, and dynamic forms. This scheme works like an artistic palette with two dominant tones, where the designer chooses one and develops it throughout the composition.

The factor-based approach, particularly the Big Five model, works in a more nuanced way because it measures each trait on a scale, recording its intensity. This is comparable to working with tonal or colour gradations in painting: instead of two poles, the designer sees the full spectrum. For example, a moderate level of extraversion may lead to a balanced space combining open communicative zones with secluded niches. Such detailing opens up broader possibilities for adapting the environment – from zoning to selecting textures, rhythms of repeating elements, and lighting scenarios.

The Big Five also introduces two characteristics that are almost absent in classical typologies but have direct design equivalents. In fact, every trait in any system – whether dichotomous or scalar – has its own set of spatial and artistic counterparts: extraversion requires socially active hubs, intuition requires room for experimentation, sensing requires clarity and stability, and

conscientiousness demands order and rhythm. Thus, both approaches are valuable tools for the architect or interior designer. Typology offers a quick overall picture, while factor analysis allows the “completion” of the work with nuances, creating a space maximally responsive to individual characteristics. This method enables the transformation of a user’s psychological profile into a multidimensional artistic image of the environment.

To effectively apply the Big Five model in design, it is necessary first to determine the user’s individual psychological profile. This is done using a standardised questionnaire (e.g., NEO-PI-R or BFI-44), which measures the five main personality traits – openness

to experience, conscientiousness, extraversion, agreeableness, and neuroticism – on a scale from low to high values. The results allow the designer or architect to interpret psychological characteristics in the form of spatial, colouristic, material, and lighting parameters. This ensures the personalisation of the environment, enhancing comfort and the aesthetic alignment of the space with the user’s expectations. Table 4 below provided examples of design solutions for high and low scores for each of the five traits in the Big Five model. This tool can be used both at the stage of conceptual design and in the detailed development of interiors, public spaces, and landscape objects.

Table 4. Correlation between personality trait levels (Big Five) and artistic-design parameters

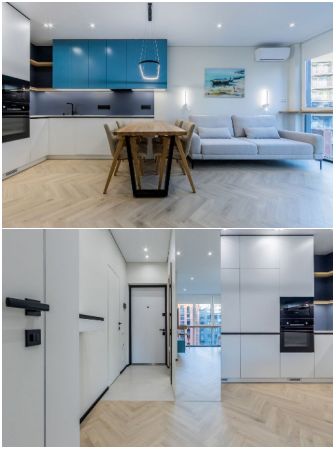
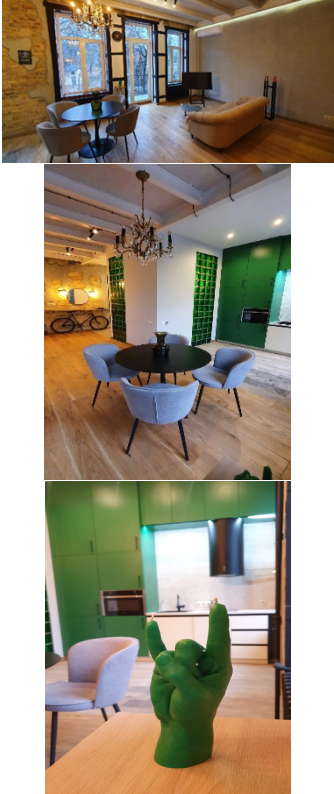
Personality trait	Level	Spatial solutions	Colour palette	Materials & textures	Lighting scenarios
Openness to experience	High	Unconventional layouts, transformable zones, artistic accents.	Saturated contrasts, bold combinations.	Combination of traditional and innovative materials.	Dynamic, changeable lighting, interactive effects.
	Low	Classical layouts, predictable functional schemes.	Restrained, traditional palettes.	Natural, time-tested materials.	Stable, uniform lighting.
Conscientiousness	High	Symmetry, clear zoning, impeccable order.	Harmonious, logically coordinated colours.	High-quality, durable materials.	Regulated lighting, absence of random accents.
	Low	Free compositions, creative asymmetry, adaptability.	Contrasting or expressive colour solutions.	Combinations of materials with varied textures.	Lighting accents that alter the spatial mood.
Extraversion	High	Open spaces, social zones, expressive focal points.	Bright, energetic colours.	Smooth, glossy surfaces, modern materials.	Intense natural light, accent illumination.
	Low (Introversion)	Intimate spaces, private niches, clear zoning.	Muted, deep shades.	Warm natural materials (wood, textiles).	Soft local light, adjustable sources.
Agreeableness	High	Cozy spaces for small groups, ergonomic furniture.	Warm, pastel tones.	Soft tactile materials.	Soft diffused light.
	Low	Individualised work zones, personal space.	Cool or neutral tones.	Minimalist, functional materials.	Localised directional lighting.
Neuroticism	High	Protected, intimate spaces, acoustic isolation.	Calm, low-contrast palette.	Materials evoking warmth and safety.	Diffused stable light, no harsh shadows.
	Low	Open spaces, stimulating environments with multiple sensory cues.	Bright or contrasting colours.	Expressive textures, decorative details.	Dynamic lighting scenarios, accent illumination.

Source: developed by the author

Table 5 demonstrated, using two examples, how personality traits according to the Big Five model can influence the choice of interior design solutions. Often, a client, when viewing design examples, focuses only on the visual impression: they may like a certain style or colour scheme, but the interior might turn out to be psychologically uncomfortable in everyday life. Taking a personality test allows determining the client’s

individual profile. Based on this data, the designer can select solutions that not only match the client’s aesthetic preferences but also support their lifestyle, activity level, need for social interaction, emotional comfort, and the organisation of space. Thus, the interior becomes not just a beautiful picture, but a harmonious environment that considers the psychological characteristics of the resident.

Table 5. Examples of interior design according to the Big Five psychological profile

Client profile traits	Design solution	Example of interior design
Balanced personality profile		
Openness to experience – average	A combination of classic functional solutions with a single bright design accent – turquoise kitchen fronts that add creativity to the interior without overwhelming it.	
Conscientiousness – high	Clear spatial organisation, concealed storage systems, and a concise layout that promote order and easy maintenance.	
Extraversion – moderate	An open-plan kitchen-living area for gatherings with close friends in small groups, while maintaining the option to create a more intimate atmosphere.	
Agreeableness – high	The use of warm materials (wooden flooring, wooden countertop) and cozy textiles to create a friendly, welcoming atmosphere.	
Neuroticism – low	A calm, balanced palette of basic shades, soft combined lighting, and decorative elements (such as a seascape) that support emotional stability.	
Creative and sociable person		
Openness to Experience – high	Many unconventional solutions: a combination of textures (brick, glass, wood), a rich green kitchen colour, decorative lighting (chandelier; accent lighting), and artistic details (a bicycle as décor). This is an interior for a person who values creativity, individuality, and experimentation.	
Conscientiousness – moderate	The space is organised but not overly formal: there are open decorative elements that do not necessarily serve a utilitarian function, indicating a balance between order and informality.	
Extraversion – moderate to high	The interior encourages hospitality and social interaction: a spacious dining area, pleasant warm lighting, and an open-plan layout.	
Agreeableness – moderate	The combination of intimate and open areas indicates a willingness to engage in social interaction while maintaining personal boundaries.	
Neuroticism – low	Warm colours, natural materials, and the absence of excessive stimuli create a stable and balanced atmosphere.	

Source: developed by the author

The solutions presented are generalised examples and may vary depending on additional factors – such as room size, budget, and the client’s stylistic preferences. Testing based on the Big Five model allows gaining a deeper understanding of the client’s individual needs and to create an interior that not only meets visual expectations but also ensures psychological comfort in everyday life. The findings confirmed that psychological personality theories can serve as a reliable basis for individualised environmental design. This aligned with the conclusions of X. Li *et al.* (2023),

who demonstrated that integrating personality traits into the design process increases user satisfaction and emotional well-being. Such integration was implemented by correlating typologies (MBTI, Big Five, R.B. Cattell, G.W. Allport, H.J. Eysenck) with specific architectural and design solutions. The results are also consistent with the findings of E. Lee & Y. Lee (2021), who identified a close relationship between personality traits and colour preferences, which can be used to more precisely adapt interior solutions to a user’s psychological profile.

According to O. Vartanian *et al.* (2015), spatial parameters such as ceiling height and degree of openness significantly influence aesthetic evaluations. This is evident in the proposed planning solutions for different levels of extraversion – from open social areas to intimate, individualised spaces. A similar approach was described by Y. Fan *et al.* (2023), who highlighted the importance of adapting lighting and colour schemes to the user's psychological profile. Compared with the results of D. Węziak-Białowolska *et al.* (2019), where cultural context is considered a key factor in shaping environments, the current study expanded this approach by integrating individual psychological characteristics. This synthesis allows creating spaces that not only align with cultural norms but are also maximally comfortable for a specific individual. While Z. Huang (2024) focused on the use of artificial intelligence for adaptive design, the author showed that even without complex algorithms, it is possible to implement a personalised approach by applying basic psychological models. However, combining these two methods could greatly expand the potential for practical implementation.

Some results of the study partly differ from the conclusions of K. Mezentsev *et al.* (2020), who examined social comfort in urban spaces mainly through the lens of collective interaction. It has been argued that personality traits – particularly neuroticism and conscientiousness – can significantly influence how a person perceives and uses space, even in public environments. This opens a new direction for urban planning that considers the psychological diversity of residents. From a practical perspective, the presented examples of applying different theories (from S. Freud to Big Five) demonstrated that designers can obtain specific recommendations for selecting materials, colours, forms, and spatial organisation based on the client's psychological profile. As G. Stoyanov (2023) noted, such a humanistic approach contributes to improving quality of life and creating environments that reflect the user's values and needs. Moreover, according to the observations of R.A. Power & M. Pluess (2015) and O. Pohosov *et al.* (2024), it is important in design to maintain a balance between the individual needs of users and universal ergonomic standards. The practical dimension of the author's proposed approach finds a parallel in the study by H. Onan Demirel (2024), which proposed a human-centred generative design as a tool for early-stage project development, enabling simultaneous testing and evaluation of concepts with consideration of user characteristics.

Thus, the study confirmed the value of psychological personality theories as a tool for interior designers and architects, and underscored the need for further development of interdisciplinary approaches. Comparisons with other papers showed that integrating psychology into architectural and design solutions is a promising area that combines scientific validity with artistic expressiveness in projects.

CONCLUSIONS

The study has demonstrated that integrating psychological personality theories into architectural and design planning allows for the creation of spaces more precisely adapted to the individual needs of users. Eight key models were analysed (Freudism, C. Jung, MBTI, Socionics, A.H. Maslow, R.B. Cattell and G.W. Allport, H.J. Eysenck, Big Five), each of which revealed specific guidelines for shaping interior solutions. The analysis showed that the levels of openness to experience, extraversion, conscientiousness, agreeableness, and neuroticism influence the choice of colour schemes, spatial layouts, materials, and lighting strategies. It was found, for example, that users with high openness tend to respond positively to unconventional colour combinations and mixed textures, whereas highly conscientious individuals prefer orderly, functional spaces with concealed storage systems. The findings confirmed that correlating the results of psychological testing with specific design parameters allows creating an “interior profile” – a set of spatial, coloristic, and decorative solutions that correspond to the client's psychological portrait. This approach contributes to enhancing emotional comfort, productivity, and satisfaction with the space. The results indicated that personalised design can be successfully applied not only in private residential interiors but also in public and office environments, ensuring a balance between individual and collective needs. A comparison with other studies showed that similar methods are already used in global practice; however, their systematic implementation, taking into consideration cultural and social contexts, opens new perspectives.

Future research should focus on the empirical study of the relationship between personality traits and users' spatial preferences, developing tools for determining the psychological profile (e.g., using the Big Five model) and automatically matching it with environmental parameters. The application of adaptive design that changes according to the needs of individuals or groups in residential, educational, medical, and public spaces appears promising. An important task is to foster interdisciplinary collaboration between architects, psychologists, and designers to create scientifically grounded methods for shaping comfortable, personality-oriented environments.

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REFERENCES

- [1] Abyzov, V., & Sheyko, D. (2024). [Influence of interior design on the psychological state of workers in modern offices](#). In *Proceedings of the 6th international scientific and practical conference "Current issues of contemporary design"* (pp. 87-89). Kyiv: Kyiv National University of Technologies and Design.
- [2] Allen, J.G., & Macomber, J.D. (2020). *Healthy buildings: How indoor spaces drive performance and productivity*. Cambridge: Harvard University Press. [doi: 10.4159/9780674246102](#).
- [3] Allport, G.W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- [4] Augustinavičiute, A. (1995). *The dual nature of man*. Vilnius: Socionics Institute.
- [5] Cattell, R.B. (1946). *Description and measurement of personality*. Chicago: World Book Company.
- [6] Costa, P.T., & McCrae, R.R. (1992). Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual. In G.J. Boyle, G. Matthews & D.H. Saklofske (Eds.), *The revised NEO personality inventory (NEO-PI-R)* (pp. 179-198). London: SAGE Publications Ltd. [doi: 10.4135/9781849200479.n9](#).
- [7] Eysenck, H.J. (1967). *The biological basis of personality*. London: Routledge.
- [8] Fan, Y., Xue, J., Zheng, H., & Lai, D. (2023). Draw to shade: A personalized daylighting regulation method through user-involved paintings for enhanced indoor visual comfort and aesthetics experience. *Journal of Building Engineering*, 80, article number 108014. [doi: 10.1016/j.jobe.2023.108014](#).
- [9] Freud, S. (1923). *The ego and the id*. Philadelphia: University of Pennsylvania.
- [10] Huang, Z. (2024). Adaptive interior design method for different MBTI personality types based on generative artificial intelligence. *Architectural Intelligence*, 3, article number 23. [doi: 10.1007/s44223-024-00066-z](#).
- [11] Jung, C.G. (1921). *Psychological types*. Princeton: Princeton University Press
- [12] Lee, E., & Lee, Y. (2021). Exploring self from personality and color preference. *Journal of Korea Society of Color Studies*, 35(4), 28-40. [doi: 10.17289/jksccs.35.4.202111.28](#).
- [13] Li, X., Zhang, W., & Xiang, Y. (2023). Big Five personality traits and envy: The mediating role of emotional intelligence. *Social Behavior and Personality: An International Journal*, 51(1), article number e12046. [doi: 10.2224/sbp.12046](#).
- [14] Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396. [doi: 10.1037/h0054346](#).
- [15] Mezentsev, K., Provotar, N., & Palchuk, M. (2020). Public spaces through the lens of participatory urban planning – the case of Kyiv. *Ukrainian Geographical Journal*, 2, 30-37. [doi: 10.15407/ugz2020.02.030](#).
- [16] Myers, I.B., & Briggs, K.C. (1985). *Myers-Briggs type indicator*. Palo Alto: Consulting Psychologists Press.
- [17] Onan Demirel, H. (2024). Human-centered generative design framework: An early design framework to support concept creation and evaluation. *International Journal of Human-Computer Interaction*, 40(4), 933-944. [doi: 10.1080/10447318.2023.2171489](#).
- [18] Pohosov, O., Skochko, V., Solonnikov, V., Kyrychenko, M., & Chepurna, N. (2024). Passive individual residential building overview and concept for a continental temperate climate. *Architectural Studies*, 10(2), 14-24. [doi: 10.56318/as/2.2024.14](#).
- [19] Power, R.A., & Pluess, M. (2015). Heritability estimates of the Big Five personality traits based on common genetic variants. *Translational Psychiatry*, 5(7), article number e604. [doi: 10.1038/tp.2015.96](#).
- [20] Skorik, M., & Kozlovska, M. (2025). Environmental preferences in architecture based on personality types. *Facilities*, 43(1-2), 1-31. [doi: 10.1108/F-05-2024-0070](#).
- [21] Stoliarenko, O.B. (2012). *Psychology of personality*. Kyiv: Center of Educational Literature.
- [22] Stoyanov, G. (2023). Human-centered residential architecture in the post-COVID era: Exploring developments and significance. *Athens Journal of Health & Medical Sciences*, 10(4), 227-248. [doi: 10.30958/ajhms.10-4-2](#).
- [23] Vartanian, O., et al. (2015). Architectural design and the brain: Effects of ceiling height and perceived enclosure on beauty judgments and approach-avoidance decisions. *Journal of Environmental Psychology*, 41, 10-18. [doi: 10.1016/j.jenvp.2014.11.006](#).
- [24] Vorobiova, V.A. (2025). [Conceptual interior design project for a rehabilitation center for military personnel and war-affected individuals](#). (Bachelor's thesis, Kryvyi Rih State Pedagogical University, Kryvyi Rih, Ukraine).
- [25] Węziak-Białowolska, D., Białowolski, P., & McNeely, E. (2019). Human flourishing in cross-cultural settings: Evidence from the US, China, Sri Lanka, Cambodia, and Mexico. *Frontiers in Psychology*, 10, article number 1269. [doi: 10.3389/fpsyg.2019.01269](#).
- [26] Xu, Y., & Yu, T. (2022). Visual performance of psychological factors in interior design under the background of artificial intelligence. *Frontiers in Psychology*, 13, article number 941196. [doi: 10.3389/fpsyg.2022.941196](#).
- [27] Zhou, K., & Wang, T. (2024). Personalized interiors at scale: Leveraging AI for efficient and customizable design solutions. *arXiv*. [doi: 10.48550/arXiv.2405.19188](#).

Типологічний та факторний аналіз особистості у контексті архітектурного дизайну

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Анотація. Сучасний розвиток архітектури та дизайну характеризується зростанням потреби у створенні середовищ, що враховують не лише функціонально-естетичні, а й психологічні особливості користувачів. Актуальність дослідження полягає у необхідності інтеграції індивідуальних психологічних характеристик у проектні рішення для забезпечення комплексного комфорту людини. Метою роботи було формування методологічного підходу до створення персоналізованого архітектурного середовища на основі моделі Big Five, що дозволяє співвіднести риси особистості з конкретними просторовими, колористичними, матеріальними та світловими параметрами. У дослідженні використано методи аналізу наукових джерел, логіко-семантичного зіставлення, узагальнення, кейс-аналізу та візуалізації результатів. Розглянуто вісім провідних теорій особистості та здійснено їх порівняльний аналіз щодо можливостей практичного застосування у проектуванні. Розроблено таблиці, що демонструють відповідність психологічних характеристик дизайнерським рішенням, зокрема вплив рис Big Five на вибір просторових схем, колірних палітр, матеріалів і сценаріїв освітлення. Створено приклади адаптації інтер'єрів та публічних просторів до профілів користувачів із різним рівнем відкритості до досвіду, екстраверсії, доброзичливості, сумлінності й нейротизму. Результати підтвердили, що персоналізований підхід дозволяє підвищити емоційний комфорт, продуктивність і психологічне благополуччя, а також забезпечити баланс між індивідуальними та колективними потребами. Практична цінність роботи полягає у створенні системи рекомендацій для архітекторів і дизайнерів, що сприяє формуванню індивідуально комфортних, гнучких та психологічно збалансованих середовищ у житловій, офісній та міській архітектурі

Ключові слова: психологічний профіль; персоналізація середовища; комфорт; просторові рішення; колористика; архітектурне проектування; адаптація інтер'єру



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Democratising hospital design: Reconfiguration of disciplinary power via M. Foucault's theory

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Abstract. Hospital interiors remained decisive sites where spatial form, materials, lighting, and acoustics structured everyday conduct, making the democratisation of design a timely concern for healthcare quality and dignity. The purpose of this study was to theorise and test a “democratisation design” logic that reconfigured disciplinary power into emancipatory spatial practice. A mixed qualitative design method was employed that combined literature synthesis, discourse analysis of briefs and standards, and comparative case studies of five contemporary hospitals to evaluate spatial layout, material language, adjustable lighting, and participatory navigation. How traditional interiors encoded hierarchy through radial zoning, cold hard finishes, uniform high-illuminance lighting, and voice-controlled soundscapes was investigated; these configurations produced routinised flows and asymmetric visibility. Decentralised layouts, nature-based materials, and circadian-tuneable lighting were established to rebalance perception and privacy while sustaining hygiene and throughput. Dialogic interfaces – open corridors, shared decision-making corners, and self-service information – were analysed and were found to reduce information asymmetry, improve perceived control, and increase trust and satisfaction. The findings were summarised as a four-part framework (movement, material, light, sound) showing where specific interventions reinforced or redistributed power across entry, waiting, and treatment zones; across five cases, queuing stress was reduced, wayfinding times were shortened, and staff coordination was supported without increasing infection-control risk or compromising clinical workflows. The results could be used by healthcare architects, engineers, and hospital managers to inform design guidelines and post-occupancy evaluations that align safety and efficiency with agency, dignity, and participation in both new builds and phased renovations

Keywords: environmental design; healthcare interior; patient-centred design; environmental perception; spatial layout; interior finishing; interior lighting

INTRODUCTION

Hospital interiors have a direct impact on the quality of treatment and the psychological state of patients. Traditionally, spatial solutions – zoning, materials, lighting, and communication organisation – shaped

the relationship between doctor and patient in the logic of control and subordination, corresponding to the disciplinary model of power described by M. Foucault (1995; 2003). Architectural and design

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elements such as raised counters, cold lighting, and semi-open offices reinforced the hierarchy and reduced the sense of trust. Simultaneously, contemporary approaches aim to rethink the hospital not as a “disciplinary container” but as a space that supports dignity, autonomy, and partnership. Research into this transition is important for the development of interiors that can build trust, reduce stress, and increase the resilience of the healthcare system.

As healthcare models transitioned to a patient-centred philosophy, B. Bogaert (2022) argued that hospital interiors should shift from passive carriers of authority to active agents for reconfiguring relationships. His study examined three key aspects of design – spatial planning, material language, and lighting narrative – to reveal how traditional hospital space functioned as a “container of discipline” and how it could be transformed into a “democratic field”. In particular, it was found that decentralised plans disrupt hierarchical power structures, warm natural materials humanise the technological environment, and adjustable lighting reconfigures the visual order. O. Pekarchuk & Kh.B. Palianytsia (2024) analysed universal physical rehabilitation halls for military personnel and proposed concise guidelines on daylight use, material finishes, and functional zoning to enhance patient agency.

M. Fiddler (2022) indicated the tool “Panoramic Openness” became one approach to analyse power, based on viewing space as the manifestation formality of a physical structure whose forms provide a set of commands that silently govern individuals by exploiting their difference in visibility conditions, body manipulation technique, or through attempts at disciplining them according to some pre-given measure. B. Dalton (2024) demonstrated that “queered” spatial interventions exposed and reworked sensory-power configurations; ethnographies of bedside rounds under a Foucauldian lens likewise mapped multiprofessional power and discourse, confirming a “power choreography”. C.A. Suijker (2023) argued that M. Foucault’s knowledge/power-space insights were key to contemporary healthcare: hospitals were organised as therapeutic realms through governance and environmental interventions, and layouts shaped patient–clinician behaviour via visibility, circulation, and zoning. Thus, M. Foucault’s perspective is crucial for understanding power in contemporary healthcare.

Empirical studies have further enriched this theoretical perspective. C.Q. Smith *et al.* (2024) analysed a pan-organisational reconfiguration in England, showing how power/knowledge and managerial moral agency shaped evidence-led redesign. C. Perry *et al.* (2022) documented the centralisation of specialist cancer surgery in Greater Manchester that effectively redrew the care geography. F. Qian & Y.S. Luo (2022) emphasised the enduring relevance of M. Foucault’s insights for understanding how disease, space, and

power interrelate. These contributions clarified that medical space was not merely a physical backdrop for treatment but a materialised expression of power relations. As P. Draganov & M.C. Sanna (2021) argued, hospital layouts and designs were shaped by the logic of regulation and control, which made them a critical lens for understanding how power operated in the contemporary healthcare system. N.S. Polka *et al.* (2022) conducted a hygienic assessment of new architectural and planning solutions for psychiatric facilities and recommended EU-aligned, multidisciplinary design guidance to create therapeutic environments, showing how spatial standards reshaped agency and safety.

As H.Y. Park (2023) emphasised, hospital space was not a neutral place of diagnosis and treatment, but rather accomplished the “micro-governance” of power through spatial layout and visual mechanisms, further validated M. Foucault’s prediction of the logic of modern power operation. The interior design of hospitals not only had to fulfill clinical needs, but also implied the rational operation of power practices. For example, spatial layout and process control together shaped the order of the body that could be observed, documented, and managed. The analysis of research provided a theoretical basis and methodological recommendations for an in-depth analysis of disciplinary mechanisms in the spatial design of hospitals. Accordingly, this study set out to operationalise an overarching “power-body-space” framework to examine how spatial layout, material language, and lighting reconfigured bodily discipline and power relations within specific hospital interior environments.

To explore how hospital interior design reflected and restructured disciplinary power, this study analysed spatial layout, material application, lighting, and acoustic strategies through literature review, case study, and discourse analysis. The literature review consolidated prior theory and yielded criteria for spatial layout, material use, lighting, and acoustics. The case study translated these criteria into concise measures – circulation hierarchy, material tactility/reflectance, lighting controllability, and acoustic attenuation – and applied them to constructed interiors, revealing patterns of power reproduction and points for redistribution. Discourse analysis examined design briefs, regulations, wayfinding, and professional narratives, showing how efficiency, visibility, and risk rationalities legitimised specific spatial choices and where alternative framings were possible. Together, the methods cross-validated results and identified actionable levers – decentralised layouts, warmer natural materials, adjustable lighting, and basic acoustic controls – for shifting interiors from disciplinary containers toward more democratic spatial fields. Drawing on M. Foucault’s theory (Foucault, 1995; 2003), it examined how traditional hospital environments employ hierarchical zoning, cold materials, uniform lighting, and controlled soundscapes

to exert invisible control over patients' bodies. Based on this framework, five contemporary hospitals were selected for comparative analysis: Shunde Hospital of Southern Medical University (Shunde, PRC), Advocate Illinois Masonic Medical Center (Chicago, USA), Lapland Central Hospital (Rovaniemi, Finland), LHL Hospital (Gardermoen, Norway), and Steno Diabetes Centre (Copenhagen, Denmark), to assess how specific design interventions challenged or reinforced spatial power structures for comparative analysis, focusing on how specific design interventions challenge or reinforce spatial power structures. Particular attention was given to decentralised spatial planning, the use of natural materials, user-adjustable lighting, and participatory navigation systems.

MEDICAL DISCIPLINE IN DISCIPLINARY SPACE: THE POWER-BODY-SPACE LOGIC OF HOSPITAL INTERIOR DESIGN

In Michel Foucault's theory of disciplinary power, the body was not only an object of political power but also a crucial medium of knowledge production. As a typical "disciplinary institution", the hospital – through its spatial structure and operational mechanisms – implemented highly detailed management and discipline of the body (Foucault, 1995). First, hospitals visualised and technologically controlled the body through spatial facilities. Beds, operating tables, monitoring stations, and observation windows allowed the patient's body to be precisely positioned, seen, and manipulated, thereby supplying the physical preconditions for the medical gaze. This vertical spatial arrangement – physicians working "from above", nurses surveilling from stations, and administrators overseeing the ward – reinforced hierarchical relations within the healthcare system and normalised role-based asymmetries. Second, information technologies disaggregated the body into legible data units. With imaging modalities, electronic medical records, and laboratory information systems, bodies were rendered as comparable metrics that could be identified, evaluated, and tracked over time; as Michel Foucault argued, the modern body thus became both an object of knowledge and a site in which mechanisms of control were embedded (Foucault, 2003).

Third, hospital layouts shaped visibility, privacy, and movement in ways that guided behaviour. S. Bae (2023) showed that during COVID-19, changes in layout, wayfinding, and room use affected staff routines, awareness, and feelings of safety. This demonstrates how spatial design influenced clinical practices. Similarly, A.B. Pratiwi *et al.* (2022) found that open doors, shared spaces, and thin partitions reduced both physical and informational privacy, limiting patient disclosure and examination. This illustrates how conditions of visibility structured interaction. Fourth, planning strategies and infection-control

measures also worked as tools of governance. K. Tang & B. Chen (2023) reported that zoning (clean/dirty areas), controlled circulation, flow separation, and modular layouts reorganised movement to reduce infection risk. In this way, circulation paths, thresholds, and restricted access disciplined bodies and routines. Taken together, these strands indicated that interior layout, visibility conditions, and information infrastructures operated as disciplinary techniques: they enabled coordination and safety while simultaneously governing bodies and conduct. In this sense, the modern hospital realised what Michel Foucault diagnosed – an apparatus in which knowledge production and power converged through space, routines, and records – rendering the clinic a key site for analysing how contemporary healthcare organised, measured, and disciplined embodied life.

SPATIAL CONSTRUCTION OF DISCIPLINARY MECHANISMS: MATERIALISED EXPRESSIONS OF POWER

The spatial construction of the disciplinary mechanism was examined through the prism of movement, material, light, and sound, which were identified as key points of entry. As C. Spence (2020) noted, these were not limited to general design considerations but represented components of the hospital environment that directly influenced patients' bodily perception and behavioural responses, thereby enabling the abstract mechanism of power to acquire a visual form and become integrated into everyday experience. Line-of-motion design – such as the entrance with an elevated guide desk and ground instructions that guided arrows all the way – was the invisible path of discipline, so that patients naturally obeyed the established rhythm, that was described by S. Chaeibakhsh *et al.* (2021), drawing on M. Foucault, as "panoramic surveillance". The choice of materials, such as smooth and easy to clean flooring, stainless steel chairs, glass partitions, etc., not only met hygiene requirements but also materialised a technical rationality; such a cool, hard environment required the body to enter a mode of adaptation. Attention was then directed to the lighting strategy: uniform illumination in the public area created an atmosphere of no "blind spots", while the spotlight in the treatment area focused attention on the patient's body, with the light itself functioning as a subtle disciplinary instrument. Ultimately, as O. Tronstad *et al.* (2023) observed, the acoustic environment – through high-frequency calling, radio control, and noise-reduction strategies – built a rhythmic, uniform, restricted voice-controlled order in the auditory dimension, so that patients invisibly complied with the temporal rhythm and behavioural logic of the healthcare system. The subsequent analysis focused on these four dimensions and demonstrated how hospital interiors integrated mechanisms of power into spatial organisation and exercised invisible control over the body through design.

The spatial layout from the entrance to the hospital’s waiting area became a gradual disciplining of the patient’s physical limitations. At the entrance the 1.2-1.3-metre-high reception desk was surrounded by transparent partitions, and patients needed to tilt their heads to communicate, a passive gesture that implied the inequality of power between doctor and patient. In studies of hospital signage, A. Lundberg *et al.* (2024) found that unidirectional floor arrows and fixed electronic department displays further deprived patients of autonomous spatial judgment and reduced them to “passive executors” of the medical process. The discipline of the waiting area appeared even more pronounced: dense, narrow, hard plastic chairs forced patients to remain in a rigid sitting position, forming a physical memory of institutional order over time; cyclic call announcements, repetitive signage, and segregated queuing areas, as M.D. Lamb (2021) argued, reinforced behavioural norms through high-frequency repetition, strictly limiting patient activities to standardised frameworks predetermined by the healthcare system and making the space a tangible vehicle for power disciplining.

The choice of materials for hospital interiors implied the logic of technological prioritisation. Floors were made of polished epoxy resin and polyvinyl chloride (PVC); walls were covered with glazed tiles or antimicrobial coatings; and waiting chairs were mainly stainless steel and hard plastics. According to L.X. Yong & J.K. Calautit (2023), such easily sterilisable, hard finishes deliberately created a space relatively devoid of human touch and tilted the environment toward a

technologically dominated, “de-emotionalised” field. Layers of transparent materials were used to build networks of power and surveillance. Nurses’ stations were often enclosed by translucent glass walls, creating a surveillance structure reminiscent of M. Foucault’s panorama, where healthcare workers could observe patients from multiple angles and fully expose their behaviour. In neonatal areas, circular glazing recentred the nurses’ station in the visual field, placing infants’ conditions in full view; frosted glass in treatment rooms, while claiming to protect privacy, was often adjusted to allow a clear inward view of the patient while blocking outward sightlines, a calibration that, as S. Kumar *et al.* (2020) discussed, delineated the power boundary between clinicians and patients.

Lighting strategy was vital to building visual power in hospital space and shaped a monitoring order through differentiated design. In public areas, cool, uniform panels supported panoramic legibility; in clinical arenas, shadowless and task lights fixed the gaze on specific anatomical sites. Excessively bright, uniform lighting heightened patients’ sense of being observed and increased anxiety, whereas adjustable systems enhanced perceived control and reduced stress. In parallel, sound assumed an important disciplining function: high-frequency queue tones and looping messages captured attention and synchronised movement, while noise-control strategies dampened conversation and privileged system operation over spontaneous social exchange; as E. de Lima Andrade *et al.* (2021) and S. Lenzi *et al.* (2024) showed, hospital soundscapes often exceeded recommended levels and

Table 1. Spatial design interventions, patient effects, and disciplinary functions in hospital interiors

Design solution	Effect on the patient	Disciplinary function
Elevated reception counter with transparent partition	Tiptoeing/stretched posture; deference cues	Visual hierarchy; role asymmetry
One-way floor arrows and fixed electronic boards	Reduced autonomous wayfinding; path dependency	Channelling flows; routinising movement
Nested queue lanes and waiting-zone partitions	Constrained trajectories; compliance	Ordering bodies in space; priority control
Polished epoxy/PVC floors; antimicrobial wall finishes	Perceived coldness; careful, measured gait	Hygiene as legitimacy; behaviour standardisation
Stainless-steel / hard-plastic seating (high density)	Rigid sitting; curtailed lingering	Postural control; turnover pressure
Transparent / frosted glass partitions	Heightened exposure; limited privacy	Asymmetric visibility; surveillance
Uniform, bright public lighting	Sense of being watched; vigilance	Panoptic legibility; deterrence
Focused task / surgical lighting	Bodily focalisation; passivity during procedures	Authority concentration; clinical control
Queue-calling systems and public-address loops	Attentional capture; timetable compliance	Temporal discipline; voice-command order
Noise-control rules and sound-absorbing materials	Muted conversation; subdued affect	Silencing; privileging system over dialogue

Source: compiled by the authors

required intentional mitigation to balance operational efficiency with human dignity.

Taken together, movement, material, light, and sound formed a concerted apparatus that translated institutional aims into embodied routines: elevated reception counters, one-way floor arrows, and nested queues channelled flows and cast patients as passive executors; polished epoxy floors, stainless-steel seating, and antimicrobial finishes operationalised a cool, technical rationality that invited bodily compliance; uniform, high-illuminance public lighting erased “blind spots”, while focused task lights in treatment rooms fixed the clinical gaze on specific anatomical sites; and, sonically, queue-calling systems, looping announcements, and noise-control rules synchronised attention and subdued spontaneous interaction. From the entrance through the waiting area, this layering of cues progressively intensified discipline – narrowing choice, scripting posture, and redistributing visibility and voice – while also improving hygiene, safety, and coordination. In this sense, hospital interiors did not merely host care; they materialised power as everyday practice and showed how design decisions at the level of pathways, surfaces, luminance, and soundscapes shaped how bodies were perceived, moved, and acted upon, and where room remained for negotiation, dignity, and patient agency.

THEORETICAL LOGIC OF DEMOCRATISATION DESIGN: FROM DISCIPLINE TO EMANCIPATORY SPATIAL PRACTICE

The theoretical logic behind the democratisation of hospital space is to transform it from a place of discipline and control into an environment of emancipation and participation. This transformation takes place in four dimensions. First, spatial relationships are changing: instead of a hierarchical order, a field of dialogue, openness and interaction is being created. Second, the material language of space shifts from cold technicality to the use of natural materials that create an atmosphere of warmth and care. Third, lighting is transformed from a tool of functional control into a means of supporting physiological rhythms and psychological recovery through brightness control and the integration of natural light. Fourth, new information systems and meeting spaces give patients the opportunity to participate in their own treatment and decision-making, making them active participants rather than passive executors. As a result, the hospital becomes not a ‘container of power’ but a democratic platform that simultaneously protects professionalism and safety and ensures equal participation and a humanistic approach, as C. Morley (2024) pointed out.

A central goal of contemporary hospital design was to break down the hierarchical order of traditional healthcare spaces through spatial reorganisation,

thereby creating a space for open, equal dialogue, as M. Zinoski *et al.* (2022) argued. By adopting open layouts and providing accessible public areas, designers could dismantle physical and psychological barriers between doctors and patients. In doing so, patients, medical staff, and visitors became more equal participants in the space, which helped to democratise power relations in healthcare. For example, the “open campus” design of Shunde First People’s Hospital connected the hospital with the city through linked courtyard gardens and open plazas, allowing patients to enter treatment areas via public gardens. These shared spaces provided places to relax and integrated the hospital into the community, weakening the traditional fortress-like isolation of the hospital and reducing internal hierarchies (Fig. 1).



Figure 1. Shunde Hospital of Southern Medical University (Shunde, PRC)

Source: HMC Architects (2019)

Similarly, the Advocate Illinois Masonic Medical Centre in Chicago reimagined spatial engagement through “mobile public corridors.” Its main corridor featured open seating areas and a glass curtain wall that brought natural light and outside views, encouraging patients and visitors to linger and look outward. The movement of medical staff was no longer confined to closed, staff-only corridors, breaking the traditional pattern of passive patients and active caregivers. Instead, a two-way flow of people and information was established, creating a more transparent and mutual environment (Fig. 2). Empirical studies showed that a friendly, comfortable atmosphere (lower reception desks, natural light, biophilic elements) increase trust and overall satisfaction, while flexibly organised waiting areas with controllable lighting and space significantly reduce patient anxiety and improve their assessment of the environment (Lee & Yoon, 2023). When hospital space was organised around dialogue, it ceased to be a mere container of power and became a “relationship incubator.” By shaping the physical environment in egalitarian ways, the medical field could escape the constraints of technical formalism and return to the humanistic ethos of patient-centred care.



Figure 2. Advocate Illinois Masonic Medical Centre (Chicago, USA)

Source: SmithGroup (n.d.)

In hospital design, the role of materials shifted from a purely technical, functional symbol to a medium that conveyed emotional comfort and sensory experience, as S. Chowdhury *et al.* (2025) noted. The aim was to innovate the material palette to soften traditional medical environments' cold, technological atmosphere and instead create a healing ambiance attuned to human emotions and the body, as E.M. Ismaeil & A.E.E. Sobaih (2022) argued. Walls and furnishings incorporated natural materials such as wood and cork, whose warm textures and tactility counteracted the sterile feel of high-tech surfaces. These materials were physically pleasant to touch and eased patients' instinctive anxiety in clinical settings through warm colours and soothing textures. As M.L. Ríos-Rodríguez *et al.* (2023) and I. Al Khatib *et al.* (2024) reported, introducing natural materials significantly reduced stress for patients and healthcare providers, fostering a more relaxed psychological atmosphere. This change reflects a broader rethinking of architectural responsibility and ethics in the wake of the pandemic, with a focus on interdisciplinary collaboration, climate awareness, and user-centred design – an area highlighted by A.M. Maj & A. Kusmierska (2020) in their study of architectural paradigms.

Designers creatively leveraged natural materials to imbue hospital spaces with warmth and a connection to nature. For example, the extension of Lapland Central Hospital used wood extensively. Wooden panels were prominently featured in the entrance canopy (Fig. 3a) and throughout the interior (Fig. 3b), where the wood's natural grain interacted with soft light and shadow to create a warm, inviting first impression. The hospital's patient wards adjoined a forest, and wooden interior walls echoed the greenery visible through large windows, allowing patients to feel the warmth of wood under their touch and to visually immerse themselves in the surrounding natural scenery. This approach created a multi-dimensional healing experience linking material, body, and environment. The natural attributes of wood, synergised with open spatial layouts and ample natural light, produced a safe and restorative environment.

Using wood and light as fundamental elements, this design innovation critiqued medical architecture's prevailing "technology-first" logic. Transforming building materials from standardised, cold components into elements that carried natural memories and emotional warmth enabled the hospital space to shed its rigid, machine-like character. Instead, the design deeply respected individual bodily experience and emotional needs. The material design thus functioned as a "silent therapist" in democratising medical environments and supported healing (Kwak & Choi, 2025).

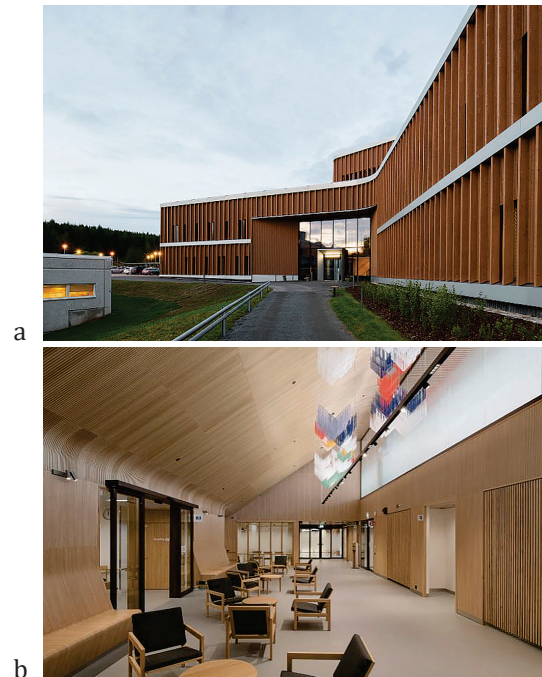


Figure 3. Lapland Central Hospital (Rovaniemi, Finland)

Note: a – exterior; b – interior

Source: Verstas Architects (n.d.)

The core of lighting design in democratised healthcare was reconfiguring visual power relations by giving patients greater control over their light environment. H. Kallestad *et al.* (2024) reported that reducing blue light at night for psychiatric inpatients improved sleep and stabilised mood. This suggested that the relationship between light and circadian rhythms was strong and that, when light was adjustable to bodily needs rather than fixed and purely functional, patients were no longer passive recipients of care but actively participated in it. Complementarily, S. Aghajari & C.-C. Chen (2023) argued that combining dynamic, daylight-mimicking systems with circadian-tuneable LED lighting reduced disruption of physiological patterns and improved sleep.

A similar design was used at the LHL Hospital in Norway to visualise what a "more patient-initiated" lighting solution could do. The building invited ample

daylight through large windows and glass curtain walls, forging a strong visual link between interior spaces and the external natural landscape. Lighting was integrated with indoor elements like plants and water features to create an autonomously adjustable system. Patients felt the passage of time through diffused natural light when there was sufficient daylight (Fig. 4a), and experienced a soothing respite when daylight was limited through the warm-dimming system (Fig. 4b). This design broke with traditional “functional lighting” in hospitals, transforming light from a cold technical carrier to an active element involved in emotional regulation.

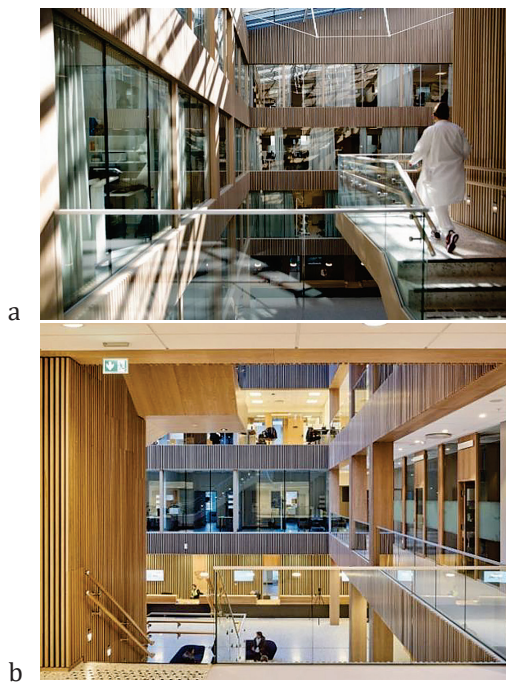


Figure 4. LHL Hospital (Gardermoen, Norway)
Note: a – sufficient daylight; b – insufficient daylight
Source: Nordic Office of Architecture (n.d.)

In essence, light no longer served merely the technical needs of treatment; through technological and natural integration, it became a medium that allowed patients to reclaim control of their surroundings via self-regulated illumination. This was not merely a matter of design improvement but a profound transformation of power relations: when lighting began to support the restoration of biological rhythms and psychological well-being, the hospital environment shifted from an instrument of control to an autonomous lightscape that fostered healing. Contemporary hospital design shifted from fixed, top-down procedural workflows to perception-guided environments that activated patient agency (Ghalehnoei *et al.*, 2022). Introducing self-service information kiosks and touchscreen wayfinding guides allowed patients to navigate appointments and services independently, thereby enhancing their sense of participation and trust in the healthcare process.

Democratising hospital space also meant encouraging the co-creation of meaning between patients and their environment (Salvati *et al.*, 2021). The Steno Diabetes Centre in Copenhagen was a vivid example of user-oriented design. A cascading landscaped staircase at the entrance encouraged people to chat and move their bodies without the alienation of a traditional hospital (Fig. 5a). The central courtyard and rooftop garden were public spaces that blended the medical environment with community life: patients could attend health lectures or relax in the rooftop garden while waiting for their appointments, and visitors could enjoy the cozy atmosphere in the open courtyard (Fig. 5b). This design broke down the rigid division of functional areas in traditional hospitals. It turned the difficult “waiting time” into a positive experience, focused on health, and brought people closer together. The details, such as barrier-free access and mixed-use areas, conveyed equality and respect everywhere. Rather than remaining a sealed medical facility, the hospital evolved into a warm, inclusive space that connected with and belonged to the community.



Figure 5. Steno Diabetes Centre (Copenhagen, Denmark)
Note: a – entrance; b – roof garden
Source: Mikkelsen Architect (n.d.)

Taken together, movement devices, materials, light, and sound formed a coherent system that translated institutional priorities into everyday routines at entrances, waiting areas, and treatment zones. These arrangements improved hygiene, throughput, and risk control, but simultaneously restricted choice, dictated posture and interaction, and redistributed who was

able to see and speak. Patients encountered a sequence of measures that encouraged compliance and made deviation costly or confusing, while staff operated within stable conditions of visibility and authority. In this way, the interior did not merely support the delivery of care; it embodied power as daily practice and reinforced hierarchies of roles and perception.

CONCLUSIONS

This study demonstrated that hospital interiors operated as disciplinary frameworks but could be reconfigured toward democratic practice. It was found that decentralised circulation, warmer natural materials, tuneable patient-controlled lighting, and participatory navigation redistributed agency while sustaining hygiene and staff coordination. The analysis showed that these moves reduced queuing stress, shortened wayfinding times, improved perceived control and trust, and did not increase infection-control risk or compromise clinical workflows. Across the five cases, specific mechanisms were identified. In Shunde Hospital of Southern Medical University (Shunde, PRC), open courtyards and porous edges dissolved fortress-like segregation and established civic permeability. In Advocate Illinois Masonic Medical Centre (Chicago, USA), “mobile public corridors” and a glazed spine established a two-way flow between staff and visitors, increasing transparency and informal encounters. At Lapland Central Hospital (Rovaniemi, Finland), extensive wood surfaces with daylight integration softened institutional affect and anchored

a multisensory, restorative ambience. In LHL Hospital (Gardermoen, Norway), patient-facing control of blue-depleted, dimmable lighting supported circadian alignment and emotional stability, evidencing a shift from functional light to negotiated illumination. At Steno Diabetes Centre (Copenhagen, Denmark), a courtyard and roof garden reframed waiting as participation, proving that community interfaces converted idle time into health-promoting activity. It was established that the movement-material-light-sound framework provided actionable criteria for design briefs, audits, and post-occupancy evaluations across entry, waiting, and treatment zones, thereby linking spatial choices to measurable shifts in visibility, choice, and voice. Prospects for further research include longitudinal, mixed-method evaluations of patient outcomes and staff workflows; acoustic-ecology experiments to quantify the effects of alarm and announcement regimes; and cross-cultural, cost-sensitive trials to test external validity and equity impacts when scaling democratisation strategies in new builds and phased renovations.

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REFERENCES

- [1] Aghajari, S., & Chen, C.-C. (2023). The effectiveness of lighting design for improved patient care considering energy conservation. *Engineering Proceedings*, 55(1), article number 91. doi: [10.3390/engproc2023055091](https://doi.org/10.3390/engproc2023055091).
- [2] Al Khatib, I., Samara, F., & Ndiaye, M. (2024). A systematic review of the impact of therapeutical biophilic design on health and wellbeing of patients and care providers in healthcare services settings. *Frontiers in Built Environment*, 10, article number 1467692. doi: [10.3389/fbuil.2024.1467692](https://doi.org/10.3389/fbuil.2024.1467692).
- [3] Bae, S. (2023). A qualitative study of hospital interior environments during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 20(4), article number 3271. doi: [10.3390/ijerph20043271](https://doi.org/10.3390/ijerph20043271).
- [4] Bogaert, B. (2022). Moving toward person-centered care: Valuing emotions in hospital design and architecture. *Health Environments Research & Design Journal*, 15(2), 355-364. doi: [10.1177/19375867211062101](https://doi.org/10.1177/19375867211062101).
- [5] Chaeibakhsh, S., Novin, R.S., Hermans, T., Merryweather, A., & Kuntz, A. (2021). Optimizing hospital room layout to reduce the risk of patient falls. *arXiv*. doi: [10.48550/ARXIV.2101.03210](https://doi.org/10.48550/ARXIV.2101.03210).
- [6] Chowdhury, S., Islam, R., Paul, S., Nur, O., & Nizam, R. (2025). Exploring indoor environmental design factors in healthcare settings towards users' well-being. *Journal of Basic and Applied Research International*, 31(2), 81-95. doi: [10.56557/jobari/2025/v31i29205](https://doi.org/10.56557/jobari/2025/v31i29205).
- [7] Dalton, B. (2024). Paul B. Preciado's queer hospital: Healthcare architectures for pleasure, transformation and subversion. *The Senses and Society*, 19(3), 337-350. doi: [10.1080/17458927.2024.2392954](https://doi.org/10.1080/17458927.2024.2392954).
- [8] de Lima Andrade, E., da Cunha e Silva, D.C., de Lima, E.A., de Oliveira, R.A., Zannin, P.H.T., & Martins, A.C.G. (2021). Environmental noise in hospitals: A systematic review. *Environmental Science and Pollution Research*, 28, 19629-19642. doi: [10.1007/s11356-021-13211-2](https://doi.org/10.1007/s11356-021-13211-2).
- [9] Draganov, P., & Sanna, M.C. (2021). Evidence of power expressed in architectural projects of Santa Catarina Hospital (1974-2002). *Saúde e Sociedade*, 30(1), article number e181106. doi: [10.1590/S0104-12902021181106](https://doi.org/10.1590/S0104-12902021181106).

- [10] Fiddler, M. (2022). Phantom architecture: Jeremy Bentham's haunted and haunting panopticon. *Incarceration*, 3(2). doi: [10.1177/26326663221101571](https://doi.org/10.1177/26326663221101571).
- [11] Foucault, M. (1995). *Discipline and punish: The birth of the prison*. New York: Vintage Books.
- [12] Foucault, M. (2003). *The birth of the clinic: An archaeology of medical perception*. London: Taylor & Francis e-Library.
- [13] Ghalehnoei, M.P., Massoud, M., & Yarmohammadian, M.H. (2022). Presenting a conceptual model for designing hospital architecture with a patient-centered approach based on the patient's lived experience of sense of place in the therapeutic space. *Journal of Education and Health Promotion*, 11(1), article number 188. doi: [10.4103/jehp.jehp_629_21](https://doi.org/10.4103/jehp.jehp_629_21).
- [14] HMC Architects. (2019). *What is a greenfield project and what are its architectural advantages over a brownfield project?* Retrieved from <https://surl.li/azwhwu>.
- [15] Ismaeil, E.M., & Sobaih, A.E.E. (2022). Enhancing healing environment and sustainable finishing materials in healthcare buildings. *Buildings*, 12(10), article number 1676. doi: [10.3390/buildings12101676](https://doi.org/10.3390/buildings12101676).
- [16] Kallestad, H., et al. (2024). Clinical benefits of modifying the evening light environment in an acute psychiatric unit: A single-centre, two-arm, parallel-group, pragmatic effectiveness randomised controlled trial. *PLOS Medicine*, 21(12), article number e1004380. doi: [10.1371/journal.pmed.1004380](https://doi.org/10.1371/journal.pmed.1004380).
- [17] Kumar, S., Ng, R.Q., & Lee, H.P. (2020). Experimental investigations of acoustic curtains for hospital environment noise mitigations. *arXiv*. doi: [10.48550/arXiv.2008.06690](https://doi.org/10.48550/arXiv.2008.06690).
- [18] Kwak, S., & Choi, K. (2025). Visual perceptions of wood-integrated material combinations: Effects on psychological and physiological responses. *Journal of Wood Science*, 71, article number 20. doi: [10.1186/s10086-025-02191-3](https://doi.org/10.1186/s10086-025-02191-3).
- [19] Lamb, M.D. (2021). Health inequity by design: Waiting rooms and patient stress. *Frontiers in Communication*, 6, article number 667381. doi: [10.3389/fcomm.2021.667381](https://doi.org/10.3389/fcomm.2021.667381).
- [20] Lee, J., & Yoon, S.Y. (2023). Nature and patient waiting: Mediating effects of anxiety and perceived wait time on the association between nature and service perception. *Journal of Environmental Psychology*, 91, article number 102113. doi: [10.1016/j.jenvp.2023.102113](https://doi.org/10.1016/j.jenvp.2023.102113).
- [21] Lenzi, S., Lindborg, P., Spagnol, S., Kamphuis, D., & Özcan, E. (2024). Perceived quality of a nighttime hospital soundscape. *Noise Mapping*, 11(1), article number 20240010. doi: [10.1515/noise-2024-0010](https://doi.org/10.1515/noise-2024-0010).
- [22] Lundberg, A., Hillebrecht, A.L., & Srinivasan, M. (2024). Effect of waiting room ambience on the stress and anxiety of patients undergoing medical treatment: A systematic review and meta-analysis. *Advances in Integrative Medicine*, 11(2), 47-68. doi: [10.1016/j.aimed.2024.04.004](https://doi.org/10.1016/j.aimed.2024.04.004).
- [23] Maj, A.M., & Kusmierska, A. (2020). *Human-friendly new way of seeing architecture*. *Architectural Studies*, 6(2), 220-229.
- [24] Mikkelsen Architect. (n.d.). *Steno Diabetes Center Copenhagen (SDCC), Herlev Hospital*. Retrieved from <https://en.mikkelsengroup.dk/projekt/steno-diabetes-center-copenhagen>.
- [25] Morley, C., Jose, K., Hall, S.E., Shaw, K., McGowan, D., Wyss, M., & Winzenberg, T. (2024). Evidence-informed, experience-based co-design: A novel framework integrating research evidence and lived experience in priority-setting and co-design of health services. *BMJ Open*, 14(8), article number e084620. doi: [10.1136/bmjopen-2024-084620](https://doi.org/10.1136/bmjopen-2024-084620).
- [26] Nordic Office of Architecture. (n.d.). *LHL Hospital*. Retrieved from <https://nordicarch.com/project/lhl-private-hospital>.
- [27] Park, H.Y. (2023). Hospital space interpreted according to Heidegger's concepts of care and dwelling. *Medical Humanities*, 50(1), article number e012696. doi: [10.1136/medhum-2023-012696](https://doi.org/10.1136/medhum-2023-012696).
- [28] Pekarchuk, O., & Palianytsia, Kh.B. (2024). Specificity of the interior formation of the universal physical rehabilitation hall for military personnel. *Series of Architecture*, 6(2), 133-143. doi: [10.23939/sa2024.02.133](https://doi.org/10.23939/sa2024.02.133).
- [29] Perry, C., Boaden, R.J., Black, G.B., Clarke, C.S., Darley, S., Ramsay, A.I.G., Shackley, D.C., Vindrola-Padros, C., & Fulop, N.J. (2022). "Attending to History" in major system change in healthcare in England: Specialist cancer surgery service reconfiguration. *International Journal of Health Policy and Management*, 11(12), 2829-2841. doi: [10.34172/ijhpm.2022.6389](https://doi.org/10.34172/ijhpm.2022.6389).
- [30] Polka, N.S., Makhniuk, V.M., Chorna, V.V., Podolian, V.M., & Yurchenko, S.T. (2022). Hygienic assessment of new architectural and planning solutions of buildings of psychiatric health care facilities. *Medical Perspectives*, 27(3), 135-141. doi: [10.26641/2307-0404.2022.3.265960](https://doi.org/10.26641/2307-0404.2022.3.265960).
- [31] Pratiwi, A.B., Padmawati, R.S., & Willems, D.L. (2022). Behind open doors: Patient privacy and the impact of design in primary health care, a qualitative study in Indonesia. *Frontiers in Medicine*, 9, article number 915237. doi: [10.3389/fmed.2022.915237](https://doi.org/10.3389/fmed.2022.915237).
- [32] Qian, F., & Luo, Y.S. (2022). Reflections on historicizing epidemics: Diagrams of spatial practices amid pandemics. *Journal of Human Settlements in Western China*, 37(1), 40-47. doi: [10.13791/j.cnki.hsfwest.20220107](https://doi.org/10.13791/j.cnki.hsfwest.20220107).

- [33] Ríos-Rodríguez, M.L., Testa Moreno, M., & Moreno-Jiménez, P. (2023). Nature in the office: A systematic review of nature elements and their effects on worker stress response. *Healthcare*, 11(21), article number 2838. doi: [10.3390/healthcare11212838](https://doi.org/10.3390/healthcare11212838).
- [34] Salvati, C.D.O., Gomes, C.A., Haeffner, L.S.B., Marchiori, M.R.C.T., da Silveira, R.S., & Backes, D.S. (2021). Humanization of the hospital: Participatory construction of knowledge and practices on care and ambience. *Revista da Escola de Enfermagem da USP*, 55, article number e20200058. doi: [0.1590/1980-220X-REEU-SP-2020-0058](https://doi.org/10.1590/1980-220X-REEU-SP-2020-0058).
- [35] Smith, C.Q., Williams, I., & Leggett, W. (2024). A matter of (good) faith? Understanding the interplay of power and the moral agency of managers in healthcare service reconfiguration. *Social Science & Medicine*, 342, article number 116553. doi: [10.1016/j.socscimed.2023.116553](https://doi.org/10.1016/j.socscimed.2023.116553).
- [36] SmithGroup. (n.d.). *Advocate Illinois Masonic Medical Center, center for advanced care*. Retrieved from <https://www.smithgroup.com/projects/advocate-illinois-masonic-medical-center-center-for-advanced-care>.
- [37] Spence, C. (2020). Senses of place: Architectural design for the multisensory mind. *Cognitive Research: Principles and Implications*, 5, article number 46. doi: [10.1186/s41235-020-00243-4](https://doi.org/10.1186/s41235-020-00243-4).
- [38] Suijker, C.A. (2023). Foucault and medicine: Challenging normative claims. *Medicine, Health Care and Philosophy*, 26, 539-548. doi: [10.1007/s11019-023-10170-y](https://doi.org/10.1007/s11019-023-10170-y).
- [39] Tang, K., & Chen, B. (2023). Resilient hospital design: From Crimean War to COVID-19. *Health Environments Research & Design Journal*, 16(4), 36-55. doi: [10.1177/19375867231174238](https://doi.org/10.1177/19375867231174238).
- [40] Tronstad, O., Flaws, D., Patterson, S., Holdsworth, R., Garcia-Hansen, V., Rodriguez Leonard, F., Ong, R., Yekovich, S., & Fraser, J.F. (2023). Evaluation of the sensory environment in a large tertiary ICU. *Critical Care*, 27(1), article number 461. doi: [10.1186/s13054-023-04744-8](https://doi.org/10.1186/s13054-023-04744-8).
- [41] Versta Architects. (n.d.). *Lapland Central Hospital*. Retrieved from <https://verstasarkkitehdit.fi/projects/lapland-central-hospital/>.
- [42] Yong, L.X., & Calautit, J.K. (2023). A comprehensive review on the integration of antimicrobial technologies onto various surfaces of the built environment. *Sustainability*, 15(4), article number 3394. doi: [10.3390/su15043394](https://doi.org/10.3390/su15043394).
- [43] Zinoski, M., Petrunova, I., & Brsakoska, J. (2025). The architecture of public buildings as a transformative model toward health and sustainability. *International Journal of Environmental Research and Public Health*, 22(5), article number 736. doi: [10.3390/ijerph22050736](https://doi.org/10.3390/ijerph22050736).

Демократизація дизайну лікарні: реконфігурація дисциплінарної влади через теорію М. Фуко

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Анотація. Інтер'єри лікарень є вирішальними просторами, де форма, матеріали, освітлення та акустика структурують повсякденну поведінку, що робить демократизацію дизайну нагальною темою для якості та гідності медичної допомоги. Це дослідження мало на меті теоретично обґрунтувати й випробувати логіку «демократизованого дизайну», яка переконфігурує дисциплінарну владу в емансипативну просторову практику. Було застосовано змішані якісні дизайн методи, що поєднують синтез літератури, дискурс-аналіз технічних завдань і стандартів та порівняльні дослідження прикладів п'яти сучасних лікарень для оцінки просторового планування, «мови» матеріалів, регульованого освітлення та партисипативної навігації. Було досліджено, як традиційні інтер'єри кодують ієрархію через радіальне зонування, холодне тверде оздоблення, уніфіковане високояскраве освітлення та звукове середовище з голосовим керуванням; ці конфігурації породжують рутинізовані потоки та асиметричну видимість. Було встановлено, що децентралізовані планування, матеріали, натхненні природою, та освітлення, налаштоване під циркадні ритми, відновлюють баланс сприйняття й приватності, водночас підтримуючи гігієну та пропускну здатність. Було проаналізовано діалогічні інтерфейси – відкриті коридори, зони спільного ухвалення рішень та інфокіоски самообслуговування – і встановлено, що вони зменшують інформаційну асиметрію, підвищують відчуття контролю, а також довіру й задоволеність. Результати було узагальнено як чотирикомпонентну рамку (рух, матеріал, світло, звук), що показує, де конкретні втручання підсилюють або перерозподіляють владу в зонах входу, очікування та лікування; у п'яти прикладах зменшувався стрес від черг, скорочувався час пошуку маршруту та підтримувалася координація персоналу без підвищення ризику, пов'язаного з контролем інфекцій, чи компрометації клінічних процесів. Отримані результати можуть бути використані архітекторами медичних закладів, інженерами та менеджерами лікарень для формування настанов із проектування та післяексплуатаційних оцінювань, щоб узгоджувати безпеку й ефективність із суб'єктивністю, гідністю та участю як у новому будівництві, так і під час поетапних реконструкцій

Ключові слова: дизайн середовища; інтер'єр медичного закладу; дизайн орієнтований на пацієнта; сприйняття середовища; просторове планування; внутрішнє оздоблення; внутрішнє освітлення



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Traditional styles of artistic and industrial art in global practices

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Abstract. Despite the growing interest in arts and crafts, there is no systematic typology of its stylistic and technological characteristics that would be used to integrate local traditions into the global artistic discourse. The study aimed to analyse key trends and identify leading authorial techniques and traditional styles in 21st-century industrial art, using the creative practices of contemporary foreign artists as examples. The study used comparative, historical-cultural, content and discourse analysis. The main results of the study showed that industrial art is under the powerful influence of globalisation processes and technological transformations, but at the same time is increasingly returning to craft traditions. The study revealed that master craftsmen, working in an open transcultural space, reinterpret traditional styles not as archaic or outdated forms, but as a means of forming new cultural codes. Traditional craft techniques and materials are acquiring the status of conceptual tools capable of conveying complex meanings, deep-rooted identities and historical memory. At the same time, technological innovations (digital media, automated production, 3D printing, etc.) contribute to the formation of new formats of creativity that combine aesthetics, functionality and sustainability. The factors that shape contemporary aesthetic guidelines, sociocultural strategies and craft practices in a transcultural environment have been summarised and systematised. The analysis of the effect of combining innovative technologies and traditional techniques on the emergence of new artistic languages and models of interaction between art and society was emphasised. The study proved that the combination of authorial techniques and craft approaches with modern technologies creates the basis for the renewal of artistic and industrial art and the formation of its competitiveness on the world stage. The results can be used to develop concepts for integrating traditional stylistics into contemporary artistic practices, which is particularly relevant in the processes of preserving cultural identity

Keywords: author's technique; cultural identity; conceptual thinking; globalisation; craft techniques; innovative technologies

INTRODUCTION

In an era of intense globalisation, artistic and industrial art are adopting new forms and meanings that reflect the complex transformations of the cultural environment. Contemporary creative practices are increasingly characterised by blurred geographical and stylistic boundaries, active digitalisation of production processes, multiculturalism, hybridisation of visual codes, and institutional mobility of artists. These phenomena form a context in which artistic and industrial art appear not only as a collection of artistic objects with artistic value, but also as a communicative tool. Despite powerful integration processes, one of the key features of

the contemporary art era is reflection on local identity, a return to authenticity, craft techniques and stylistic canons inherent in specific cultural environments. This desire to preserve and revise tradition enables the formation of a new quality of authorial expression, which simultaneously actualises national contexts and enters into dialogue with global trends.

A review of contemporary scientific literature demonstrated the multidirectional movement of research into traditional stylistics in artistic and industrial art: from digital innovations and Industry 4.0 methodologies to the political, educational and tourism

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dimensions of crafts. In this context, the study by N. Bortolotti (2023) was revealing. Analysing the transformations in Italian production, the study proved that the development of Design 4.0 creates conditions for rethinking the creative value of crafts, combining technological evolution with the preservation of craftsmanship and material knowledge. In an interdisciplinary vein, D. Andansari *et al.* (2023), drawing on Indonesian material, described models of innovation for batik products and craft practices in the paradigm of co-creation, digital design and supply chain integration. The study demonstrated that digitisation does not destroy tradition but sets new contours for the market and aesthetics. At the meta-analysis level, D. Bellver *et al.* (2023) performed a bibliometric mapping of the scientific field, proving that “creative crafts” structurally correlate with local development and social capital. The study clarified the clusters of topics (heritage, sustainable development, education) that set the framework for further empirical studies.

The Ukrainian segment is represented by a study by N. Beniakh & O. Patyk (2024), which examines the place of contemporary decorative art in the system of professional education based on material from the Department of Artistic Woodworking at the Lviv National Academy of Arts. The study recorded the transformation of educational programmes towards project-based interdisciplinarity, while preserving the technical and technological continuity of craft practices. Similar trends are consistent with the conclusions of E. Kapkın & S. Joines (2021), emphasising the key role of material and tactile knowledge in shaping contemporary educational approaches in the field of art and design, particularly the need to integrate craft techniques into project methodologies to maintain cultural continuity and innovative potential. The tourism and heritage aspects were analysed in detail by M. Curkovic (2021). The study viewed traditional crafts as intangible cultural heritage that shapes competitive advantages in the global cultural tourism market. The need for authenticity certification and community participation was emphasised. The historical and theoretical dimension of the Arts & Crafts movement heritage was updated by I. Hart (2023), tracing the legacy of May Morris and Dorothy Walker through interior design practices. The article demonstrated how gendered and material interior policies influence contemporary interpretations of “craft” modernism.

In the field of convergence between technology and craft, the collection by T. Oksala *et al.* (2022) was key, conceptualising the tripartite axis of “craft-technology-design”. A model was proposed for integrating digital manufacturing, materials science, and design research methods into practices derived from traditional stylistics. In the same technological direction, V. Ferraro (2023) proposed a method of designing with new materials based on a three-phase model of

“understanding-shaping-applying”, which forms systematic materials science thinking in designers. The researcher proved that emerging materials combine traditional craft skills with experimental digital methods, expanding the possibilities of artistic and industrial practices. In turn, M.R. Azari *et al.* (2023) conducted an intercultural and morphological analysis of geometric ornaments. The review articulated the principles of applying Islamic geometric patterns in computer technologies, combining historical and aesthetic foundations with algorithmic approaches and parametric modelling.

Collectively, these studies outlined a shift from normative “traditional” to hybrid modes of production and representation; confirmation of the socio-economic significance of crafts for territorial development and cultural identity; expansion of methodological tools through digital and political-cultural studies. The study aimed to analyse the development of artistic and industrial art in the 21st century, analysing its key trends, leading authorial techniques, and the preservation of traditional stylistic approaches among contemporary foreign artists.

■ MATERIALS AND METHODS

This study employed a comparative-analytical approach, which involved comparing contemporary artistic practices in the field of 21st-century industrial art, with an emphasis on traditional styles, craft techniques, and innovative form-creating strategies. This approach comprehensively analysed the specifics of artistic discourse in a globalised cultural space and identified the mechanisms of interaction between local identities and global trends. The materials for analysis included curatorial projects, museum exhibitions, installation works, critical publications, interdisciplinary studies, and scientific articles representing European, Asian, North American, and Ukrainian cultural contexts. Such a broad source base was used to consider artistic and industrial art as a multi-vector phenomenon combining social, cultural, technological, and political components.

First, a structural-semiotic analysis of art objects was applied, which was used to study the semantics of artistic forms and visual codes in the context of their historical and cultural determinism. The semiotic approach was used to trace how traditional ornaments, techniques, or materials acquire new symbolic meaning in contemporary authorial practices. The second relevant methodological tool was a discursive analysis of authorial narratives, aimed at identifying the rhetorical and conceptual strategies through which artists position their work in the global art field. Within this approach, curatorial statements, critical reviews, and scholarly interpretations were analysed, enabling the reconstruction of contextual connections between artistic expression and its public reception.

The third stage of the methodological procedure was a qualitative study of empirical cases presented in professional exhibition environments, academic publications, and design platforms. Particular attention was paid to interdisciplinary projects that integrate traditional craft techniques with the latest digital media, as well as exhibition practices that emphasise the socio-cultural significance of craft as a form of cultural memory and identity.

The application of these methods identified key formative strategies that characterise the artistic and industrial art of the 21st century, and traced the interaction between traditional styles and innovative technologies. Thus, the methodological framework of the study combined semiotic, discursive and comparative levels of analysis, ensuring the integrity and multifaceted nature of the study of artistic and industrial practices in the contemporary cultural space. The use of interdisciplinary materials not only describes the formal characteristics of art objects but also interprets them in a broader sociocultural context, which emphasises the relevance of the study for contemporary art history.

RESULTS AND DISCUSSION

The art of the 21st century, particularly artistic and industrial art, is frequently regarded as a reflection of everyday life, as it has the ability not only to aesthetise, but also to critically reflect on the realities and problems inherent in a specific historical moment. This art is created in close connection with everyday experience, as artists draw inspiration from familiar practices, everyday scenes, social conflicts, political challenges, cultural shifts, and collective traumas. In this context, the use of traditional stylistics, which is reinterpreted through the prism of individual experience, often with the help of unique authorial techniques, was central. Since the key features of 21st-century society are new technologies, globalisation, and digitalisation, these same characteristics are organically integrated into contemporary artistic practices. Innovation is a key characteristic of contemporary art and industrial art of the 21st century, manifested in the use of the latest technologies, interactive formats and interdisciplinary approaches. The key components of innovative design are shown in Figure 1.

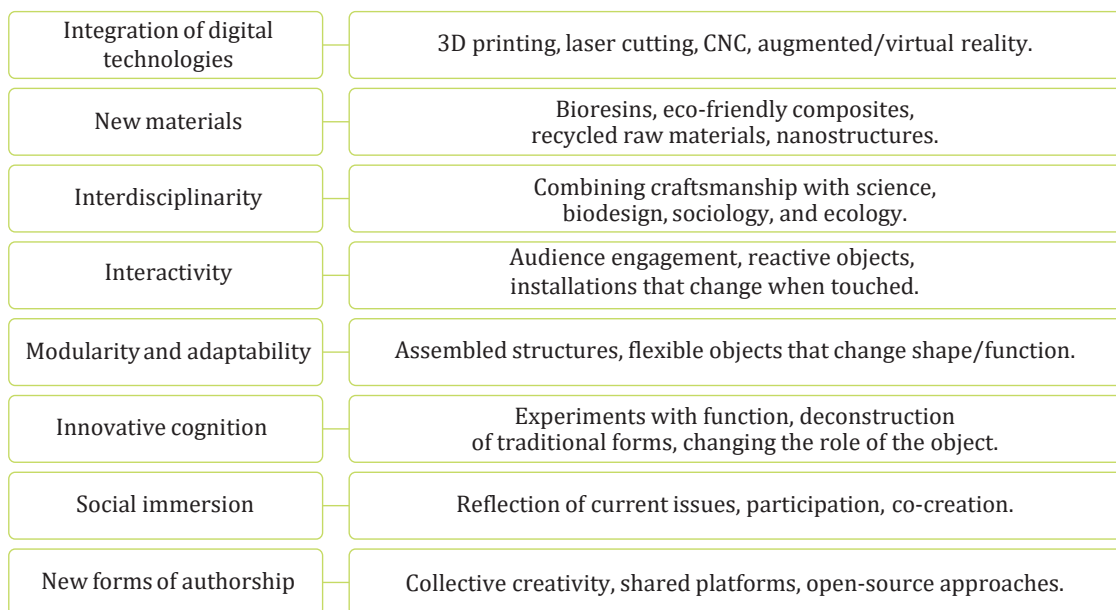


Figure 1. Components of design innovation

Source: compiled by the author based on D. Andansari *et al.* (2023), N. Beniakh & O. Patyk (2024)

For example, Liliane Lijn's exhibition *Arise Alive* at Tate St Ives showcased a combination of kinetic art, light installations and feminist themes, creating a meditative space that brings together science, technology and spirituality (Fig. 2). This approach can be interpreted as an interdisciplinary platform that integrates artistic practices with elements of scientific thinking, promoting critical reflection on the interrelationships between technological progress, spiritual quests, and sociocultural constructs. Another example is Libby Honey's *Ent-* installation, created in 2025,

which uses quantum computing to reinterpret classical images such as Bosch's *Garden of Earthly Delights* through interactive digital environments (Fig. 3). Xu Bing's exhibition *Gravitational Arena* at the Museum of Art Pudong in Shanghai experiments with the visual perception of text, creating an installation where words change depending on the viewer's position, evoking a sense of gravitational distortion (Fig. 4). The change in the form and legibility of signs in space simulates the effect of "semantic gravity", where meaning appears to be distorted under the influence of visual parameters.



Figure 2. Composition at the Arise Alive exhibition
Source: Sylvia Kouvali (n.d.)



Figure 3. Ent- installation
Source: Libby Honey (n.d.)

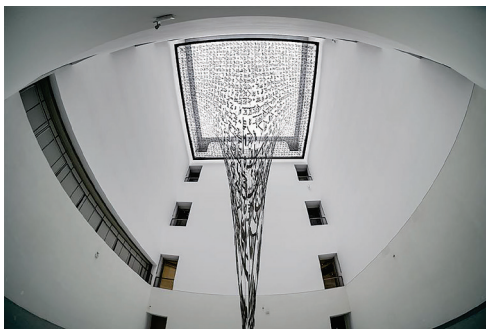


Figure 4. Xu Bing's Gravitational Arena installation
Source: J. Wang (2022)

These examples highlighted how contemporary artists are pushing the boundaries of traditional art by integrating innovative technologies and concepts to reflect the complexity and diversity of the modern world (Smith, 2014). T. Oksala *et al.* (2022) analysed the interaction between craftsmanship and digital technologies, viewing traditional techniques as a flexible platform for innovation in design. The researchers emphasised that it is the integration of the latest materials and tools that ensures relevancy of cultural heritage in a global technocultural context. According to researchers M. D'Arcy & M. Nilges (2015), the main characteristic of

contemporary art is its ability to combine global trends with individual authorial techniques and local styles. Despite the dominance of globalisation processes that lead to the unification of forms and content, artists actively turn to authentic sources of national traditions, regional technologies, and craft practices to emphasise the importance of the local in the global cultural field. The study articulated the issue of inequality, remaining sensitive to the social landscape, while introducing both innovative and traditional technologies that enhance the meaning of their works.

The study by C. Yijing & S. Sharudin (2023) traced the strategy of rethinking cultural heritage through its integration into the design of modern products. The study interpreted traditional symbols as a source of innovation, emphasising the importance of visual code for the formation of cultural identity in the context of globalisation. Thus, contemporary industrial art emerges as a complex multidimensional phenomenon, within which individual and collective practices, traditional artistic paradigms and experimental technological approaches, as well as global cultural trends and local contexts, intersect. This process can be used not only to express individual aesthetic ideas but also to engage in a broader cultural discourse, reflecting both internal shifts in society and transnational processes that determine the configuration of contemporary culture.

In the 21st century, artistic and industrial art represent a wide range of trends that express the social, technological and cultural transformations of modern society. These features are evident in numerous contemporary trends and movements that determine the dynamics of decorative and applied art in a globalised cultural context. One of the leading trends is contemporary craft, which involves a thoughtful combination of authentic technologies with the latest materials and aesthetics. The exhibition *This Present Moment: Crafting a Better World*, presented at the Renwick Gallery of the Smithsonian American Art Museum, has become a landmark example of this trend. The exhibition featured 171 decorative art objects, including works in textiles, glass, metal, wood, and ceramics, which demonstrated not only technical mastery but also deep socio-cultural meaning. The artists featured in the exhibition raised questions of identity, environmental awareness, community experience and personal history (Fig. 5).

L.J. Roberts & S. Zapata (2017) viewed traditional craft as a multidisciplinary artistic practice that goes beyond functional application and becomes a form of critical expression. The study emphasised the interaction of craft techniques with contemporary visual formats, particularly installations; therefore, craft can be used for the representation of social identity. N.G. Wiggers (2016) addressed a similar issue, drawing attention to the political and ethical nature of manual labour in contemporary art, positioning craft as opposed to industrial production and as a means of social influence.



Figure 5. Portrait of Resilience, Sharon Kerry-Harlan
Source: Smithsonian American Art Museum (n.d.)

Another striking phenomenon is craftivism, which combines craftsmanship with activism. Founded in 2009, the Craftivist Collective movement, led by Sarah Corbett, uses traditional techniques such as embroidery and hand sewing as tools for soft protest and social dialogue. In this case, decorative and applied arts are not just a form of aesthetic self-expression, but a means of critically reflecting on social inequality, human rights and environmental responsibility. Key contemporary craftivism technologies are shown in Figure 6.

The development of modular art, in which art objects can be used for variability and intervention by the viewer, deserves special attention. This art form is becoming an open, changeable, participatory process. Such practices reflect general trends towards

co-creation, individualisation of cultural experience and decentralisation of artistic authorship. In this context, it is worth mentioning the revival of the principles of the Arts and Crafts movement. Although it emerged in the 19th century as a reaction to industrialisation, its ideas are gaining new life in the 21st century. Contemporary designers, such as Jonathan Anderson in the Loewe brand, have consciously turned to handicrafts, traditional technologies, and local craft practices, introducing them into high design. In this way, the role of craftsmanship in modern society is being rethought as a resource that is not only aesthetic but also ethical and ecological (Vinterior, 2025). Another significant trend is innovation in the field of materials. London Craft Week 2025 featured objects created using bioswabs, recycled wood and the latest eco-friendly composites. Artists are experimenting not only with form, but also with materiality, redefining the boundaries between natural and artificial, traditional and man-made (Fig. 7).

In the context of contemporary artistic and industrial art, there is a substantial trend: to make a name for oneself in the globalised art space, it is not enough for an artist to possess high technical skills or aesthetically appealing forms. Given the growing competition caused by the blurring of geographical boundaries and the mobility of artists, especially within international exhibition platforms, it is becoming increasingly relevant not just to create art, but to articulate meaningful social messages through it. Attention to the problems of the community, city or even nation substantially increases the visibility and resonance of artistic expression in an oversaturated visual field.

Embroidery	Used to create political messages, personalised stories and memorial texts.
Sewing	The practice of “repairing” as a metaphor for care, healing, and social restoration.
Textile appliques	Formation of critical statements through a combination of visual and text fragments.
Street-craft	Exhibiting textile works in public spaces as a form of non-violent protest.
Hand weaving	Collective weaving as a social act, a way of engaging communities in dialogue.
Screenprinting	Mass reproduction of political images on fabrics, flags, posters.
Quilting	Used to archive collective memory, particularly in LGBTQ+ and feminist initiatives.
Textile installations	Material objects that evoke emotional or physical resonance in the viewer.
Use of household materials	Transforming everyday items (clothing, napkins, towels) into carriers of social messages.
DIY-aesthetics	Conscious imperfection as a sign of subjective authorship, resistance to standardisation.

Figure 6. Craftivism technologies

Source: compiled by the author based on London Craft Week (n.d.)



Figure 7. Installation created for the Entrance Hall at WOW!house

Source: London Craft Week (n.d.)

Contemporary art is a social indicator, and artists are increasingly using it to reflect on crises, trauma, social inequality, and political repression. One striking example of this artistic stance is the work of Thai artist Jakkai Siributr, who continues to work in the field of textile art, integrating complex socio-cultural narratives into his work. Starting with an academic interest in sewing, embroidery, and textiles, Siributr has consistently developed a distinctive artistic language that combines introspection, participation, and a deep political context, particularly related to the situation in Thailand and the Southeast Asian region. The installation 78 (2004), a conceptual memorial to the victims of the Tak Bai incident, where 78 Muslim protesters were killed as a result of brutal treatment by the Thai army, is an example of how textile art can be transformed into a space of collective memory. The structure, which refers to the Kaaba, incorporates Thai script stylised as Arabic calligraphy and framed by elements reminiscent of takrut amulets. Inside are multi-level bamboo beds, each containing clothing embroidered with words in the Arabic-Malay jawi script. This visual ambiguity of the text transforms it into an image that functions as both a carrier of memory and protest, blurring the boundaries between the artistic and the ritual (Fig. 8).

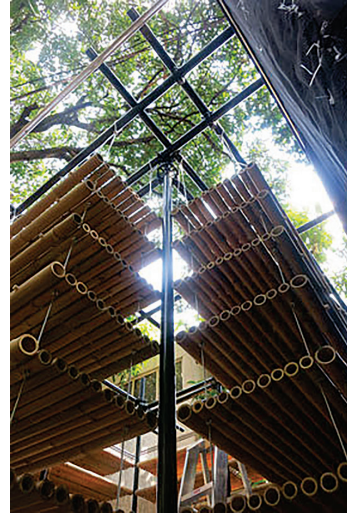


Figure 8. Installation 78 (2004)

Source: The First Art Newspaper on the Net (n.d.)

In 2022, Siributr's works were included in the international exhibition *Garmenting: Costume as Contemporary Art*, organised at the Museum of Arts and Design (New York). Particular attention was paid to the *Blind Faith* series, which continues to explore the theme of violence and conflict in southern Thailand. In this series, Siributr used military uniforms covered with thick layers of Buddhist amulets, talismans, yantra fabrics, and bullet casings. These elements not only decorate the clothing but also create a unique shell that transforms the uniform from a symbol of state violence into an object of sacred protection. In this way, the artist refers to the experience of young men from rural areas who sought protection from the horrors of war in religious practices embodied in material amulets.

This example is not unique; it is just one of many that illustrate how deeply contemporary art and industrial art are rooted in the social, cultural and political realities of our time. Artists around the world are increasingly turning to forms of local heritage, craft traditions, and personal and collective experiences as sources of inspiration for creating relevant artistic expressions. In this context, the annual Loewe Craft Prize

is indicative, as it not only honours the significant contribution of artists and craftspeople to contemporary society, but also demonstrates that the significance of artistic and industrial art is determined by its ability to be a bearer of cultural memory and identity, and a means of critical reflection on the state of the modern world (Gutierrez, 2017).

British artist Celia Pym, in turn, demonstrated how the seemingly utilitarian practice of mending can be used to make subtle socio-cultural reflections. The Norwegian Sweater, saved from destruction at a recycling warehouse, becomes an act of “return” both as an object and as the human experience it symbolises. Darning with white thread functions not only as a restoration technique, but also as a metaphor for the lasting, personal, intimate connection between people and objects that bear witness to stories that often remain outside the realm of artistic discourse (Fig. 9).



Figure 9. Norwegian Sweater (2010)

Source: C. Pym (n.d.)

The unifying factor for all these practices is a combination of deep respect for the material and technique, with the actualisation of social or cultural content. The value of such art is determined not only by visual or functional parameters, but above all by its narrative, ethical and anthropological function. It is created not “for” the market, but through it as a space for communication, memory, representation and protest. Thus, contemporary artistic and industrial art emerges as a form of intellectual activity that reveals the multiplicity of identities, undermines dominant cultural codes, and affirms the significance of traditions as a dynamic resource for creating the future.

In the context of researching contemporary authorial techniques and traditional styles of artistic and industrial art, the study determined that the formative processes of the 21st century are determined not only by political or social determinants. Cultural events, festivals, fashion trends and current market challenges also have a significant impact on artistic practices. At the same time, there is a growing aesthetic and ideological rehabilitation of craft techniques as a source

of cultural authenticity, identity and innovation. One substantial example of the interaction between artistic practices and cultural events is the phenomenon of global festivals, in particular the Festival of India, which has had a significant impact on the formation of aesthetic consciousness among representatives of the South Asian diaspora. As P.N. Corey (2016) noted, a new generation of artists recognises that it is precisely such events that have helped them establish a connection with traditional craft forms, identify themselves as part of the post-colonial cultural heritage and incorporate these elements into unique techniques. Recognition of local visual codes, from ornaments to specific materials, can be used to create art objects that are highly conceptual and appealing in the global art space. As emphasised by I. Nesen (2024), the attribution of folk artworks requires a clearly structured methodology that combines historical-geographical, semiotic and comparative analysis. The researcher emphasised that it is the comprehensive application of these approaches that can identify the authentic morphological features of folk crafts and form a holistic awareness of their origin and cultural context. Such scientific tools are essential for the interpretation of traditional techniques as a living component of contemporary artistic practices.

This process is particularly significant in the context of growing interest in traditional styles and techniques among contemporary artists. As K. Robertson & L. Vinebaum (2016) note, more artists, regardless of gender, are incorporating craft into their practices: Ghada Amer, Tracey Emin, Liza Lou, Grayson Perry, Theaster Gates, and others are actively working with forms such as tapestry, embroidery, ceramics, woodworking, and beadwork, integrating them into highly artistic authorial statements. This trend is accompanied by a gradual overcoming of the historiographical vacuum in Western art history, where decorative and applied media associated with “domesticity” and women’s labour were previously systematically ignored. In this context, feminist art historians, particularly in North America and Europe, highlight the significance of craft as a space for critiquing the social order and representing cultural memory (Andansari *et al.*, 2023). As G. Franger (2024) has shown, feminist museological and “craftivist” practices are capable not only of deconstructing the “art/craft” binary but also of creating spaces for the recognition of indigenous and women’s textile practices as full-fledged carriers of cultural memory and political subjectivity.

This connection between aesthetics and identity can also be traced in artistic practices that integrate ritual forms. For example, Balinese ceremonial gifts, sculptural compositions made of flowers and food, function in art as indices of place, heritage, and religious culture. In contemporary contexts, they can be incorporated into artworks not as ethnographic attributes, but as means of decolonial identification in dialogue with

Western canons, rather than in opposition to them. Furthermore, craft often becomes a mechanism of nation-building, as seen in the case of batik in Malaysia or lacquer painting in Vietnam, where these techniques were officially institutionalised as elements of national art after decolonisation, despite their complex colonial heritage (Soon, 2016). In this way, craft functions not only as an aesthetic practice but also as a political strategy for modernisation. E. Manzini (2025) highlighted that in contemporary socio-cultural conditions, design emerges as a field of interaction between “diffuse” and “expert” design, where creative practices become a tool for shaping new models of collaboration and social innovation. A similar logic of interaction between craft, social innovation and sustainable development was also traced by A.M. Ferreira & D. Sendra (2021), viewing Craft and Design as a tool for entrepreneurial engagement of local communities and strengthening their cultural and economic agency. J. Bryan-Wilson (2017) revealed the political agency of textiles, demonstrating how “grassroots” techniques produce aesthetics of resistance and redefine the boundaries between art and craft in global contexts.

Global artistic and industrial art of the 21st century is dominated by styles that combine innovation with a deep respect for materials and tradition. Among the leading trends are neo-minimalism, which emphasises purity of form, natural materials and functionality; hybrid art, which integrates craft techniques with digital media and 3D technologies; and craftivism, a style in which craft becomes a means of social and political expression. These styles reflect artists’ desire for aesthetic novelty, local authenticity, and critical reflection on the present. Thus, in the 21st century, traditional styles and authorial techniques of artistic and industrial art are gaining new strength as means of critical analysis, aesthetic invention, and cultural autonomy. Their popularity is due not only to the influence of social processes or the institutional market, but also to their relevance to contemporary artistic language, which seeks to communicate through local experience in a global dialogue.

REFERENCES

- [1] Andansari, D., Kamarudin, K., Shyafary, D., & Pristanti, H. (2023). Innovation of craft and batik products in the industrial revolution 4.0 era in Indonesia. *AIP Conference Proceedings*, 2706(1), article number 020200. doi: [10.1063/5.0120511](https://doi.org/10.1063/5.0120511).
- [2] Azari, M.R., Bemanian, M., Mahdavejad, M., Körner, A., & Knippers, J. (2023). Application-based principles of Islamic geometric patterns: State-of-the-art and future trends in computer science/technologies – a review. *Heritage Science*, 11, article number 22. doi: [10.1186/s40494-022-00852-w](https://doi.org/10.1186/s40494-022-00852-w).
- [3] Bellver, D., Prados, B., López, A., & Molina-Moreno, V. (2023). Crafts as a key factor in local development: Bibliometric analysis. *Heliyon*, 9(1), article number e13039. doi: [10.1016/j.heliyon.2023.e13039](https://doi.org/10.1016/j.heliyon.2023.e13039).
- [4] Beniakh, N., & Patyk, O. (2024). Modern decorative art in the system of art education of Ukraine (on the example of the activity of the department of art wood of the Lviv National Academy of Arts). *Bulletin of Lviv National Academy of Arts*, 52, 19-25. doi: [10.37131/2524-0943-2024-52-2](https://doi.org/10.37131/2524-0943-2024-52-2).
- [5] Bortolotti, N. (2023). The craftsman and design 4.0: A reconsideration of creative value. *Fashion Highlight*, 1, 114-119. doi: [10.36253/fh-2268](https://doi.org/10.36253/fh-2268).
- [6] Bryan-Wilson, J. (2017). *Fray. Art and textile politics*. Chicago: University of Chicago Press.

CONCLUSIONS

The study analysed contemporary trends in artistic and industrial art through the prism of the creative practices of contemporary foreign artists. The study determined that 21st-century art is shaped by globalisation processes, technological innovations and socio-cultural transformations. The study proved that contemporary artists actively interact with the global cultural space, working in an open environment without geographical and disciplinary restrictions. The study found that, despite technological advances, artists actively turn to traditional styles and craft techniques, integrating them into the context of contemporary artistic thinking. The study proved that such authorial techniques, based on local aesthetics, cultural memory and material characteristics, perform the function of cultural expression, where each visual element acquires symbolic meaning.

The study also determined that, at the international level, artistic practices that combine conceptual richness with a high level of material execution are gaining recognition. The study proved that the modern key criterion for the value of a work of art is not only its aesthetic form, but also its authenticity, depth of content and rootedness in the cultural identity of the author. Thus, traditional stylistics, adapted to the challenges of modernity, is transformed into a conceptual language of art that represents a new paradigm of artistic thinking. Prospects for further research lie in expanding the comparative analysis of international artistic and industrial practices, studying the influence of local traditions on global art processes, and investigating the role of craft as a tool for visual communication in the post-digital era.

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- [7] Corey, P.N. (2016). Beyond yet toward representation: Diasporic artists and craft as conceptualism in contemporary Southeast Asia. *Journal of Modern Craft*, 9(2), 161-181. doi: [10.1080/17496772.2016.1205279](https://doi.org/10.1080/17496772.2016.1205279).
- [8] Curkovic, M. (2021). The role of the traditional crafts as intangible heritage on the global tourist market. *SHS Web of Conferences*, 92, article number 06005. doi: [10.1051/shsconf/20219206005](https://doi.org/10.1051/shsconf/20219206005).
- [9] D'Arcy, M., & Nilges, M. (Eds.). (2015). *The contemporaneity of modernism: Literature, media, culture*. New York: Routledge. doi: [10.4324/9781315689272](https://doi.org/10.4324/9781315689272).
- [10] Ferraro, V. (2023). Designing with and for emerging materials: Framework, tools, and context of a unique design method. In V. Ferraro, P. Kääriäinen, P. Morer-Camo & A. Pasold (Eds.), *Materialising the future. Research for development* (pp. 3-26). Cham: Springer. doi: [10.1007/978-3-031-25207-5_1](https://doi.org/10.1007/978-3-031-25207-5_1).
- [11] Ferreira, A.M., & Sendra, D. (2021). [CraftDesign for entrepreneurship, social innovation and sustainability](https://doi.org/10.1080/17496772.2021.19206005). *Discern: International Journal of Design for Social Change, Sustainable Innovation and Entrepreneurship*, 2(1), 46-53.
- [12] Franger, G. (2024). Feminist Arts & Craftivism: Opening spaces for dialogue, respect and recognition in the museum. *Dialogues in Social Justice*, 9(1), article number 1688. doi: [10.55370/dsj.v9i1.1688](https://doi.org/10.55370/dsj.v9i1.1688).
- [13] Gutierrez, B. (2017). The Art of Craft in the 21st century. *Document*. Retrieved from <https://www.documentjournal.com/2017/04/the-art-of-craft-in-the-21st-century/>.
- [14] Hart, I. (2023). May Morris, Dorothy Walker, and the legacies of the Arts and Crafts interior. *Journal of Interior Design*, 48(4), 259-271. doi: [10.1177/10717641231194007](https://doi.org/10.1177/10717641231194007).
- [15] Kapkın, E., & Joines, S. (2021). The design brief as a creativity catalyst in design education: Priming through problem statement. *International Journal of Art & Design Education*, 40(1), 126-145. doi: [10.1111/jade.12339](https://doi.org/10.1111/jade.12339).
- [16] Libby Honey. (n.d.). *Ent- (Non Earthly Delights)*. Retrieved from <https://libbyheaney.co.uk/artworks/ent-non-earthly-delights/>.
- [17] London Craft Week. (n.d.). *Sloane street series. The art of craftsmanship*. Retrieved from <https://londoncraftweek.com/featured-projects/sloane-street-series-the-art-of-craftsmanship-featured-projects/>.
- [18] Manzini, E. (2025). *Design, when everybody designs: An introduction to design for social innovation*. Cambridge: MIT Press Ltd.
- [19] Nesen, I. (2024). Ukrainian works of folk art through the prism of scientific attribution. *Notes on Art Criticism*, 24(1), 14-22. doi: [10.63009/noac/1.2024.14](https://doi.org/10.63009/noac/1.2024.14).
- [20] Oksala, T., Orel, T., Mutanen, A., Friman, M., Lamberg, J., & Hintsu, M. (Eds.). (2022). *Craft, technology and design*. Hämeenlinna: Häme University of Applied Sciences.
- [21] Pym, C. (n.d.). *Norwegian sweater*. Retrieved from <https://celiapym.com/work/norwegian-sweater/>.
- [22] Robertson, K., & Vinebaum, L. (2016). Crafting community. *Textile*, 14(1), 2-13. doi: [10.1080/14759756.2016.1084794](https://doi.org/10.1080/14759756.2016.1084794).
- [23] Smith, T. (2014). [Rethinking modernism and modernity now](https://doi.org/10.1080/00141801.2014.900000). *Philosophical Journal*, 35, 271-319.
- [24] Smithsonian American Art Museum. (n.d.). *This present moment: Crafting a better world*. Retrieved from <https://americanart.si.edu/exhibitions/this-present-moment>.
- [25] Soon, S. (2016). [Batik and the grand design for modern art](https://doi.org/10.1080/17496772.2016.119206005). In *Love me in my batik: Modern batik art from Malaysia and beyond*. Kuala Lumpur: IB Tower Gallery Sdn Bhd.
- [26] Sylvia Kouvali. (n.d.). *Exhibitions*. Retrieved from <https://www.sylviakouvali.com/exhibitions/>.
- [27] The First Art Newspaper on the Net. (n.d.). *Honoring the overlooked: Jakkai Siributr's tapestries explore grief, migration, and social injustice*. Retrieved from <https://artdaily.com/news/177478/Honoring-the-overlooked-Jakkai-Siributr-s-tapestries-explore-grief--migration--and-social-injustice?>
- [28] Wang, J. (2022). Capturing the tension, interaction and relationship among different civilizations. *City News Service*. Retrieved from <https://www.citynewsservice.cn/shine/92923daf-6b38-433d-bbb7-cfab6d3907be>.
- [29] Yijing, C., & Sharudin, S. (2023). The integration of traditional symbols and modern product design: Cultural inheritance and innovation. *Global Journal of Emerging Science, Engineering & Technology*, 1(1), 19-25. doi: [10.56225/gjeset.v1i1.17](https://doi.org/10.56225/gjeset.v1i1.17).

Традиційні стилістики художньо-промислового мистецтва у світових практиках

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Анотація. Незважаючи на зростаючий інтерес до художньо-промислового мистецтва, відсутня систематизована типологія його стильових і технологічних характеристик, яка дозволила б інтегрувати локальні традиції у глобальний мистецький дискурс. Мета статті полягала в аналізі ключових тенденцій і виявленні провідних авторських технік та традиційних стилістик у художньо-промисловому мистецтві XXI століття на прикладі творчих практик сучасних зарубіжних митців. У дослідженні використано порівняльний, історико-культурний, контент- та дискурс-аналіз. Основні результати дослідження засвідчили, що художньо-промислове мистецтво перебуває під потужним впливом глобалізаційних процесів і технологічних трансформацій, але водночас все активніше повертається до ремісничих традицій. Виявлено, що майстри, працюючи у відкритому транскультурному просторі, переосмислюють традиційні стилістики не як архаїчні чи застарілі форми, а як засіб формування нових культурних кодів. Традиційні ремісничі техніки та матеріали набувають статусу концептуальних інструментів, здатних передавати складні смисли, укорінені ідентичності та історичну пам'ять. Водночас технологічні інновації (цифрові медіа, автоматизоване виробництво, 3D-друк тощо) сприяють формуванню нових форматів творчості, які поєднують естетику, функціональність та сталість. Узагальнено й систематизовано чинники, що формують сучасні естетичні орієнтири, соціокультурні стратегії та ремісничі практики в умовах транскультурного середовища. Особлива увага приділена аналізу того, як поєднання інноваційних технологій та традиційних технік сприяє появі нових художніх мов і моделей взаємодії між мистецтвом та суспільством. Доведено, що поєднання авторських технік і ремісничих підходів із сучасними технологіями створює підґрунтя для оновлення художньо-промислового мистецтва та формування його конкурентоспроможності на світовій арені. Результати можуть бути використані для розробки концепцій інтеграції традиційної стилістики в сучасні мистецькі практики, що є особливо актуальним у процесах збереження культурної ідентичності

Ключові слова: авторська техніка; культурна ідентичність; концептуальне мислення; глобалізація; ремісничі техніки; інноваційні технології



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Graphic chronicles of the full-scale Russian-Ukrainian war in the works of Ukrainian icon painters

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Abstract. The relevance of the study was determined by the active dissemination of expressive graphic sketches created by artists during the full-scale war, a significant part of which combines the iconographic tradition with elements of war reporting. Despite the presence of these works in the digital space and the growing interest in them, the illustration of war crimes by Ukrainian icon painters is an understudied topic. The aim of the article was to outline the role of graphic chronicles in the works of Roman Barabakh, Ulyana Krekhovets and Danylo Movchan and to identify the artistic features of the works. The study used qualitative and quantitative methods, formal, iconographic, and semiotic analysis. It analysed 164 works created by Ukrainian icon painters during the full-scale war. The article focused on works created between March and July 2022, when icon painters were most active in creating graphic chronicles. The analysed works demonstrated a synthesis of the visual language of icon painting with the current political and social context. The artists' work revealed active encryption of meanings through the symbolic system of iconography, the personification of heroes in the form of saints, references to local iconographic images, and the documentation of specific military events. The article noted a decrease in the number of such works, indicating the emotional exhaustion of artists and the gradual adaptation of society to the prolonged threat. The analysis showed that graphic chronicles created by icon painters during the war perform a number of important functions, including social, memorial, and communicative ones. In particular, it was found that social networks were actively used by artists to disseminate their work and engage the audience in reflection. The practical value of the study lay in recording new artistic strategies that demonstrated the transformation of iconographic images during wartime. The study of these processes provided a deeper understanding of the role of sacred art as a form of reflection, documentation and spiritual support in times of trial

Keywords: religious images and motifs; graphic works; documentary evidence of war; iconography; sacred art

INTRODUCTION

After the full-scale invasion on 24 February 2022, Ukrainian art became a space for reflecting on the tragic events of the war. Painters, sculptors, and graphic artists represented the tragedy of war in their work, capturing the scale of destruction in urban and rural areas, reflecting the suffering of the civilian population, as well as manifestations of humanism and civic solidarity. Themes of memory, loss, and resistance were traced in large-scale street murals, intimate watercolour series, and video art works, where personal stories were intertwined with political and military narratives.

Art, including sacred art, always interacts with the historical and political context of its era, performing

social functions – from representing religious ideas and consolidating historical memory to supporting protest movements. In a broader international context, the research by N. Shefi *et al.* (2025) is important, showing that social art can function as a space for expressing loss and trauma, as well as a form of therapy and collective communication. Such works are not limited to the role of objects for contemplation, but appeal to viewers, evoking empathy and promoting civic mobilisation. Similar processes have been observed in the Ukrainian context, where iconographic motifs in contemporary graphics have served as a kind of “medium” for reflecting on and understanding the war.

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L. Lozova (2025) argued that Byzantine iconography and the post-Byzantine tradition always developed in connection with historical and political events. At the same time, these circumstances did not completely determine the content of icons, but could give theological meanings special relevance at a particular historical moment. This principle of interaction between sacred art and historical events became particularly pronounced in times of political upheaval, when images take on new functions and meanings in the public sphere. The potential of sacred art to transform under political tension was noted by T. Lesiv (2021), who observed that following the Revolution of Dignity (2014), sacred art often functioned as political commentary or took on characteristics of symbolic weaponry.

The war contributed to a profound rethinking of Ukrainian national identity in art, which, according to I. Lokshuk *et al.* (2024), manifested itself in the active appeal of contemporary Ukrainian artists to historical roots, traditions and symbols, emphasising the uniqueness of culture and its resilience in the face of the threats of war. Exploring references to religious images in the visual field of war, M. Levytska (2023) noted that the events of war actualise various aspects of “muted” religious consciousness and revive attention to the historical and cultural archetypes of the past. Thus, war stimulated artists to create a new mythology, a new pantheon of heroes called upon to motivate resistance and lead to victory. H. Zorzdrager (2025) emphasised that the spiritual dimension of struggle in wartime becomes visible in the artistic expressions of the visual arts: the role and significance of Mary, the Mother of God, in wartime artworks is evident. Icon painters show how love and divine presence support people even in traumatic circumstances. Y. Yurchuk (2024) pointed out in her article that the use of sacred symbols in the visual culture of resistance is not always a manifestation of religiosity as such. Instead, these images act as a universal cultural language capable of evoking an emotional response in both local and international audiences. Christian iconography functions as a visual code that transcends national, religious and linguistic barriers and contributes to the establishment of the phenomenon of “post-secular sanctity”, in which the boundaries between the sacred and the secular, the religious and the political are blurred. S.I. Horban (2024) noted that among other types of art, sacred visual art is unique in the process of artistic comprehension of the transcendent world, forming new narratives that express reflection on the events of the Russian-Ukrainian war and empathy for the victims. Art projects, exhibitions, charity activities, works on military artefacts, and more not only enrich sacred visual art, but also become an important “artistic document of the times”. As noted by S. Kot *et al.* (2024), works created during wartime not only reinterpret reality but also document actual events, becoming part of the collective digital memory.

During the full-scale invasion, iconographic images were widely used in the digital environment, but the issue of their transformation and the emergence of new forms of Christian iconography as a means of documenting the war remains understudied, which justifies the relevance of the research. The aim was to identify the artistic features and functionality of graphic chronicles in the works of R. Barabakh, U. Krekhovets and D. Movchan based on 164 works created in 2022-2024.

■ MATERIALS AND METHODS

The study used a comprehensive approach to analyse visual graphic chronicles created at the beginning of Russia's full-scale invasion of Ukraine. Based on a preliminary review, 164 works by three artists – Roman Barabakh, Ulyana Krekhovets and Danylo Movchan – were selected. The main selection criteria were the authors' focus on military themes, the use of iconographic motifs, and work in the format of quick, expressive sketches, which most fully represent the phenomenon of representing war events. These artists were chosen because of their active creative position during the war, their systematic recording of events in artistic form, and their different approaches to combining sacred tradition with the current experience of war. Thanks to this, their works were indicative for studying the transformation of contemporary iconography.

Quantitative analysis was conducted based on visual materials published on the artists' personal pages on social networks. The works were arranged chronologically, which made it possible to trace the dynamics of their creation and identify changes in the artists' artistic approaches and representative strategies. This arrangement made it possible to compare the time of creation of the works with specific historical events that took place during this period. During 2022, the artists created 103 works, in 2023 – 42, and in 2024 – only 19. This gave reason to focus the main attention of the study on the works from March to July 2022 – the period of greatest artistic activity. Separately, 18 works were selected for review in the article.

For a deeper understanding of the characteristics of these works, a qualitative analysis was applied, which included interpretation of content, symbolism, and stylistic features. The analysis of the works was carried out according to several indicators: genre and stylistic characteristics (format, technique, means of expression) and artistic strategies of documentation (methods of visualising events, use of symbolism, narrative construction of images). The article highlighted the following illustrations: R. Barabakh – “Rachel Weeping for Her Children”, “Mariupol”, “Good Friday”, two illustrations “Exodus from Azovstal”, “Archangel Michael”, “Communion at Azovstal”, “Missile Strike in Vinnytsia”, “Martyrs of Azovstal”, D. Movchan – “Destruction”, “Burnt Bodies”, U. Krekhovets – “Children of Mariupol”, “Flight to Lviv”, “To My Kyivites”, “My

Lions”, “Why Is Mary Crying?”, “Vinnytsia”, “Martyrs of UA. Olenivka. 29.07.22”.

Formal analysis allowed to identify the compositional and plastic features of the works, while iconographic analysis revealed the meaning of the images and symbols used, often borrowed from the traditional language of icons. The semiotic approach played a key methodological role in the study, allowing to identify the hidden meanings embedded by the artists in the images. The interpretation of the works was based on the semiotic theory of R. Barthes (1991), in particular his approach to distinguishing between the denotative and connotative levels of signs. The visual analysis was supplemented by the artists’ personal comments on social media. In particular, published interviews with artists in the media and open online resources were studied (Kurtiak, 2022; Ya Gallery, 2022; Martyniuk, 2025). An individual interview with Roman Barabakh was also conducted in February 2025. The interview took place in person, in the format of a personal conversation. The answers were recorded using a voice recorder. The total duration of the conversation was about 60 minutes. The questions concerned each of the artist’s analysed works, the process of their creation, the circumstances that determined the choice of themes and symbols, and the artist’s personal stories and experiences. His creative path, experience of military service, and the differences between quick sketches and traditional icons were discussed separately. The interview was semi-structured and took place on the basis of voluntary consent in accordance with the ethical standards of The World Medical Association (2024) Declaration of Helsinki.

Contextualising the works within the specific historical events that took place at the time of their creation allowed for a deeper understanding of the artists’ interpretations and revealed the individual experiences that formed the basis of their artistic expression. The methodological approach used ensured a multidimensional understanding of the visual practices of Ukrainian artists during the war period, combining quantitative, qualitative and semiotic analysis. The combination of chronological ordering of materials with in-depth interpretative analysis made it possible to identify the dynamics of changes in artistic strategies caused by the development of war events.

RESULTS AND DISCUSSION

The full-scale invasion by the Russian Federation caused a massive humanitarian and security disaster, while also bringing new forms of social mobilisation to the fore, particularly among members of the artistic community. With the start of the full-scale invasion, Ukrainian artists actively sought new means of artistic expression that would allow not only to record events, but also to reflect on the experience of war. At the heart of the research was the question of how art can serve as a means of documentation, reflection and support in

wartime. During an interview with Ya Gallery (2022), artist Danylo Movchan noted how, in the early days of the war, he continued to work in the traditional iconographic manner, but by the end of February 2022, the artist had begun creating a series of watercolour works in which he employed more generalised and allegorical imagery. According to the artist, this approach became a form of artistic reflection that helped him not only to comprehend the events, but also to maintain his inner emotional balance. Sacred motifs gradually appeared in his works, in particular elements of the Crucifixion, which formed a new visual synthesis between traditional iconography and images of the war experience.

From March 2022, icon painters Ulyana Krekhovets and Roman Barabakh also began to actively demonstrate their artistic response to the events of the war. Their work testified to a shift in emphasis from canonical religious images to expressive visual recordings of reality. In the early days of the invasion, Krekhovets began a daily practice of graphic sketches, which became a visual chronicle of the war. According to the artist in an interview with L. Kurtiak (2022), the need for this form of expression arose against the backdrop of internal exhaustion from traditional icon painting. The graphic sketches, created with markers in a notebook, were often made in shelters, based on observations and reproducing people’s emotional states and reactions to events. As noted by L. Kurtiak (2022), the artist began creating her graphic works during a long stay in a shelter after a missile strike on Yavoriv (Lviv region). In her later work, allusions to Christian iconography appeared: in particular, the image of the Virgin Mary with the Infant Jesus was transformed into the figure of a mother with a child during the shelling.

From the first months of the full-scale invasion, R. Barabakh combined volunteer work with artistic practice, and in 2023 he joined the Armed Forces of Ukraine. According to O. Martyniuk (2025), despite his participation in combat operations, R. Barabakh managed to continue his artistic practice, particularly in the form of sketches. As R. Barabakh noted in a personal interview, unlike icon painting, which was a spiritual sphere for the artist and required inner peace, sketches emerged as “brutal impressions” of military reality – fragments of what he saw that could not be reproduced in a canonical icon. Thus, his work during the war demonstrated the coexistence of two directions: spiritual tradition and reportage. The artist noted that he could not return to creating traditional icons at that time, explaining that icon painting for him was a process that required inner peace and a peaceful atmosphere. Thus, as in the case of U. Krekhovets, so in the practice of R. Barabakh, there was an intense transformation of the means of artistic expression: from canonical religious tradition to individual artistic testimony about the experience of war. These works function not only as forms of personal reflection, but also as visual

documents of the time, combining religious symbolism, everyday military life and collective memory.

A departure from traditional canons, the use of high-speed graphics, expressive sketches and fragmentary images – all this became a characteristic feature of the artistic reactions of some artists. As noted by S. Hulievych (2023), Ukrainian graphics are deeply intertwined with socio-political changes: war penetrates graphic works through personal perception and emotional-psychological reflection. Thanks to its technical diversity and conciseness, graphic art becomes an effective means of quickly recording events and replenishing the archival artistic experience. The works of artists reflect key events of the war that had a profound social and humanitarian resonance. S. Kot *et al.* (2024) emphasised that Ukrainian artists use their art not only to express emotions caused by aggression, but also to voice the experiences of many Ukrainians, expressed in visual images and symbols.

In early March 2022, the city of Mariupol was surrounded by Russian troops. During the first two weeks of the full-scale invasion of Ukraine, numerous air strikes were recorded, resulting in significant human casualties. Reflecting on the war through art became a painful reflection of the realities that Ukrainian society began to face. S. Plokyh (2023) noted that as of early April 2022, according to the mayor Vadym Boychenko, the number of deaths in Mariupol exceeded 21,000. This led to the development of artistic practices aimed at documenting and comprehending the events of the war. Icon painters began to reflect despair and injustice in their works, reinforcing the emotional significance of the works through the use of Christian iconography. A characteristic example of the use of iconographic images to enhance emotional content is R. Barabakh's work "Rachel Weeping for Her Children", in which the artist depicts a woman kneeling, surrounded by Russian soldiers (Fig. 1).



Figure 1. R. Barabakh, "Rachel weeping for her children" (2022)

Note: pastel, paper

Source: R. Barabakh (n.d.)

The work was created on 9 March 2022 and depicts events related to the shelling of a building in Mariupol, Donetsk region, which at that time housed a maternity hospital and a children's hospital, with medical staff, patients and local residents using it as a temporary shelter. The central image of the composition is a woman with an expression of deep suffering on her face, raising her hands in despair; around her are the bodies of children and bloodstains, which intensify the emotional impact of the image. The title of the drawing corresponds to an excerpt from the Gospel of Matthew 2:18: "Rachel weeping for her children". This excerpt was used by the artist as a metaphor for the contemporary context: Russia's war against Ukraine, emphasising the cruelty and injustice of war. In the text of the post, R. Barabakh (n.d.) mentioned the air strike, dedicating this emotional sketch to the children who died as a result of the Russian army's aerial bombardment.

In March 2022, the Mariupol Drama Theatre, which at that time was being used as a shelter for civilians, was destroyed by an air strike. According to the Donetsk Regional State Administration (2024), there were about a thousand people in the building at the time of the explosion. The events surrounding the destruction of the theatre were artistically interpreted by R. Barabakh in his work Mariupol (Fig. 2), in which the central figure is Christ, depicted at the moment of embracing the burning theatre building. The author depicted the wounds on Jesus' hands after the Crucifixion, emphasising the symbolic connection between his suffering and the tragedies of the Ukrainian people.

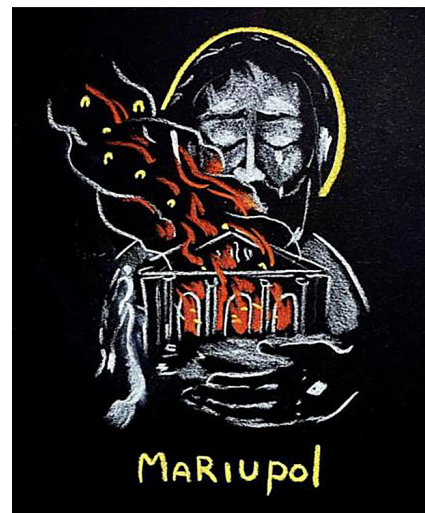


Figure 2. R. Barabakh, "Mariupol" (2022)

Note: pastel, paper

Source: R. Barabakh (n.d.)

R. Barabakh posted the work on his Instagram account, dedicating it to the tragedy in Mariupol. In his post, the artist emphasised the scale of the crime and called for prayers for the local residents of Mariupol.

Such meaningful messages accompanying the publication of works served as a means of self-expression for the artist and a tool for communicating with the audience, aimed at revealing the cruelty and tragedy of war. The use of English for most posts was motivated by the author's desire to spread information about the realities of war to the widest possible audience, primarily the international community (Barabakh, n.d.). As noted by S. Kot *et al.* (2024), artists actively use Instagram to disseminate their works representing war, thus giving their work a more precise political context, and the use of hashtags contributes to its active dissemination. The use of anti-war and politically charged hashtags and the frequent combination of illustrations with slogans and political messages demonstrate how digital art can be used as a form of digital activism during war and serve not only to tell the story of war, but also to shape the narrative and call for action. M. Levytska (2024) argued that contemporary forms of digital graphics, as a form of artistic resistance, are widespread in electronic media and are an integral part of various artistic practices designed to motivate, strengthen and support society in the context of a war aimed at destroying Ukraine and its identity. Thanks to the technical capabilities of the Instagram platform, artists are able to distribute their works to a wide range of users, which helps to expand their audience and activate communication with new viewers. As a result, artworks gain a viral effect, reaching a much wider audience than within the traditional exhibition space. Thus, the combination of art with the communicative capabilities of social networks, in particular Instagram, creates new mechanisms for the dissemination of works. According to M. Levchenko *et al.* (2025), digital technologies and social networks play a key role in the dissemination of military visual culture, becoming a platform for instant reaction, communication and cultural resistance. Online exhibitions, internet memes and digital creativity ensure the widespread dissemination of artistic interpretations of war.

For example, among R. Barabakh's creative works, the work "Good Friday" (Fig. 3) gained the most resonance and viral spread. In it, the artist depicted soldiers pulling Christ's body out of an evacuation vehicle, creating a visual analogy with the fallen Ukrainian defenders who gave their lives. This artwork resonated with viewers on Instagram: over 3,370 users liked the post, and 499 people shared it on their pages. These data were collected from the artist's Instagram profile in July 2025. Such activity indicates a high level of audience engagement and a deep emotional response to the visual interpretation of the theme of death in the context of war.

Thus, artists actively engage the audience in empathy, reflection, and interaction, which becomes one of the key tasks in their work. Thanks to such a wide reach, artists are able to represent the realities of war to an international audience. Ulyana Krekhovets also created an emotional sketch in which she focused on

the killings of children and the tragedy of the attack on the drama theatre. In her sketch, the artist illustrated children who suffered as a result of the war. In the drawing, they huddle together in the shape of a yellow and blue heart, which is attacked by rockets marked with the colours of the Russian flag (Fig. 4).



Figure 3. R. Barabakh, "Good Friday" (2025)

Note: digital graphics

Source: R. Barabakh (n.d.)



Figure 4. U. Krekhovets, "Children of Mariupol" (2022)

Note: liners, paper

Source: U. Krekhovets (n.d.a)

Another theme raised by artists in their work was the forced evacuation of the population. After the beginning of 2022, the migration flows of Ukrainians reached unprecedented levels. As noted by T. Renduk (2022), the history of Europe and the world over the past half-century includes several significant migration crises: the Afghan crisis (1979-1989), which resulted in more than 6 million refugees and emigrants; the Venezuelan crisis (2013-2019), which affected about 3 million people; and the Syrian crisis (2019-2020), which affected almost 3 million people. Compared to these crises, migration flows from Ukraine are on a larger scale. As of 1 April 2022, according to a survey

by the International Organization for Migration (2022), the number of internally displaced persons in Ukraine exceeded 7 million, while more than 4 million Ukrainians left the country. In March 2022, U. Krekhovets published a sketch depicting the forced evacuation of the Ukrainian population. The central image in the work is a truck with children and a mother with a baby, which refers to the iconographic image of the Virgin Mary with Christ (Fig. 5).



Figure 5. Visualisation of the evacuation in dialogue with the iconographic image of the Virgin Mary
Note: a – U. Krekhovets, “Flight to Lviv” (2022), liners, paper; b – fragment of the icon “Flight into Egypt”, first half of the 17th century, Galicia. National Reserve of the Kyiv-Pechersk Lavra
Source: U. Krekhovets (n.d.a)

Thus, the artist turned to the traditional iconographic plot “The Flight into Egypt” and interpreted it through the prism of contemporary events, conveying in the image of the Virgin Mary with the infant a generalised image of all women forced to leave their homes because of war. The visual language of the work was built on a system of iconographic symbols, in particular the halos around the heads of the woman and child, as well as a compositional solution that echoes the iconographic type of the Virgin Mary as the Nurse (Galactotrophus). This allows to interpret the image of a woman with a child not only as a scene from real events, but

as a symbolic embodiment of the Virgin Mary, and thus a universal archetype of motherhood and protection. Another significant detail is the image of God’s hand, which in iconographic tradition personifies God’s blessing, presence and protection. It is thanks to the visual system of signs, familiar to the viewer through the religious context, that the author has activated a multi-level perception of the work. Thus, the image of the Virgin Mary with the infant in U. Krekhovets’ work appears not only as a symbolic reproduction of an iconographic plot, but also as a universal archetype of motherhood and protection.

Viewed through the semiotic framework of R. Barthes (1991), the denotative level of the work depicts a woman with a child in a lorry. However, visual elements such as halos, compositional structure, inscriptions, and the blessing gesture of God’s hand form a connotative level, thanks to which the image acquires deeper meanings. This approach opens up a multi-level reading of the work, revealing cultural codes, symbolic references and collective memory captured in visual form. As the author noted in an interview with L. Kurtiak (2022), the traditional image of the “Flight into Egypt” featured the Virgin Mary on a donkey with the infant Christ. In her interpretation, this motif was changed: instead of a donkey, the image of a truck carrying the Virgin Mary and Christ was used. The artist drew a parallel between this image and modern women with children who left Mariupol, Chernihiv or Kyiv, heading not to Egypt, but to Lviv. Graphic works by artists representing the war become a record of significant events. In this case, the works take on other functions. In the traditional context, iconography primarily serves a prayerful function, acting as a mediator between the believer and the transcendent. However, an analysis of contemporary graphic works by Ukrainian icon painters shows a significant transformation of these functions in the context of war. In such works, the prayerful dimension recedes into the background, while social, memorial and communicative functions come to the fore.

At the end of March 2022, U. Krekhovets created a sketch entitled “Angel Michael, protect Kyiv and all the cities of Ukraine!” (Fig. 6). The work featured an image of the city of Kyiv, which became relevant after the end of the occupation of the Kyiv region by Russian troops in early April 2022. In her sketch, U. Krekhovets used the image of Archangel Michael, the patron saint of the city of Kyiv. He destroys the snake, symbolising Russian aggression, with a sword depicted in the colours of the Ukrainian flag. At the bottom of the composition, the blue and yellow flag of Ukraine unfurls over Ukrainian soldiers and residents of the city. In her work, the artist sought to reflect the heroism and resilience of Ukraine. Thanks to this, the work acquired a social function, supporting the moral state of society and visually articulating the ideas of national resistance. The use of the image of Archangel Michael as the defender of Kyiv and

the symbolic victor over evil acquired not only religious but also political significance.



Figure 6. U. Krekhovets, “To My Kyivites” (2022)

Note: liners, paper

Source: U. Krekhovets (n.d.a)

In April 2022, numerous massive missile strikes by the Russian Federation were recorded. The shelling damaged not only military and critical infrastructure, but also civilian objects, including private residential buildings. These events were reflected in the graphic works of Lviv artists U. Krekhovets and D. Movchan, who drew on their own experiences of living through a missile attack. In his work “Destruction” (Fig. 7), Danylo Movchan depicted a dark silhouette of a building, inside which, in a light rectangle, there is a figure of a man with a cross, accentuated by the colours of the Ukrainian flag. Ulyana Krekhovets, using the image of lions – a traditional symbol of the city of Lviv – created a composition in which animals with shields protect themselves from missiles. In a comment on the work, published on social media, the artist noted that Holy Week began in a new context and took on new meanings (Krekhovets, n.d.a).

Thus, these works represent an immediate artistic response to events witnessed by the artists themselves. While previous works were mostly the result of processing information obtained from photographs, videos, or news reports, in this case, it was a direct personal experience of a real threat and the transformation of this traumatic event into symbolic artistic images. While D. Movchan’s work was dominated by tragic, muted colours that created an atmosphere of danger, and the figure of a man with a cross, despite its miniature scale, served as a sign of hope, in U. Krekhovets’ work the emphasis shifted towards the visualisation of resilience. Lions, which are a traditional symbol of the city of Lviv, are depicted with calm, even slight smiles, protecting themselves with shields, which reinforces

the feeling of inner confidence and readiness to resist the threat. Thus, both artists demonstrated differences in their artistic emphasis and ways of interpreting their experiences: each artist interpreted the events in their own way, focusing on different emotional aspects of the war.



a



b

Figure 7. Works dedicated to Lviv after the attack on the city

Note: a – D. Movchan, “Destruction” (2022), watercolour on paper; b – U. Krekhovets, “My Lions” (2022), liners on paper

Source: D. Movchan (n.d.), U. Krekhovets (n.d.a)

At the end of April 2022, when the situation in Mariupol remained critical, U. Krekhovets (n.d.a) created an illustration, in the caption to which she emphasised on social media the two months of rocket attacks and the genocide of Ukrainians (Fig. 8). The author deliberately turned to the iconographic sign system, using the image of the Virgin Mary as a multi-level symbol. On the one hand, Mary appeared as the traditional protector of the city, since the name “Mariupol” has an etymological connection with the name of the Virgin Mary. The Virgin Mary herself is considered the patroness of this city. On the other hand, the iconographic motif of the Protection of the Virgin Mary functions as a cultural code established in the Ukrainian visual space, signifying care, intercession and protection in times of danger.



Figure 8. U. Krekhovets, “Why is Mary Crying?” (2022)
Note: liners, paper
Source: U. Krekhovets (n.d.b)

In the composition of the work, the Virgin Mary is depicted as a protector, covering Ukrainian soldiers and city residents with her omphorion from enemy shelling. The city is engulfed in flames in the background, and the Virgin Mary, with tears in her eyes, contemplates its suffering. The yellow marker outlines around the heads of individual figures resemble halos, which traditionally symbolise holiness. It is likely that the author used this artistic technique to emphasise the martyrdom of Ukrainians forced to endure attacks on their cities. In this context, H. Zorgdrager’s (2025) observations were revealing: the researcher emphasised that Ukrainian artists’ use of the image of the Virgin Mary in wartime highlights her multidimensional role – as a protector, comforter and compassionate intercessor, as well as a powerful spiritual leader in battle. In this way, the artist constructed a symbolic system in which the local identity of cities such as Lviv and Mariupol was integrated into a broader sacred and cultural context. This allows the viewer to interpret the works not only as individual reactions to events, but as symbolic constructions that accumulate religious and national meanings.

At the end of April 2022, the evacuation of the civilian population from Mariupol began. Historians, including S. Plokyh (2023), noted that the Ukrainian authorities were forced to agree with the Russian side on the withdrawal of the defenders of Azovstal, followed by their capture and exchange. The events related to the defence and evacuation of Azovstal were reflected in the works of artist R. Barabakh. In 2023, the artist created an illustration dedicated to the departure of Mariupol’s defenders from the territory of the metallurgical plant (Fig. 9a), adding an inscription in the style of traditional iconography: “20.05.2022. Azovstal”. In 2024, the artist created a compositionally similar work (Fig. 9b), depicting soldiers walking towards a dark

mass, interpreted as an image of evil in the form of a monster. In the caption to this work on social media, the artist recorded the date of the defenders of Mariupol’s departure from Azovstal (20 May 2022), describing it as a tragic transition from darkness into even greater darkness (Barabakh, n.d.).

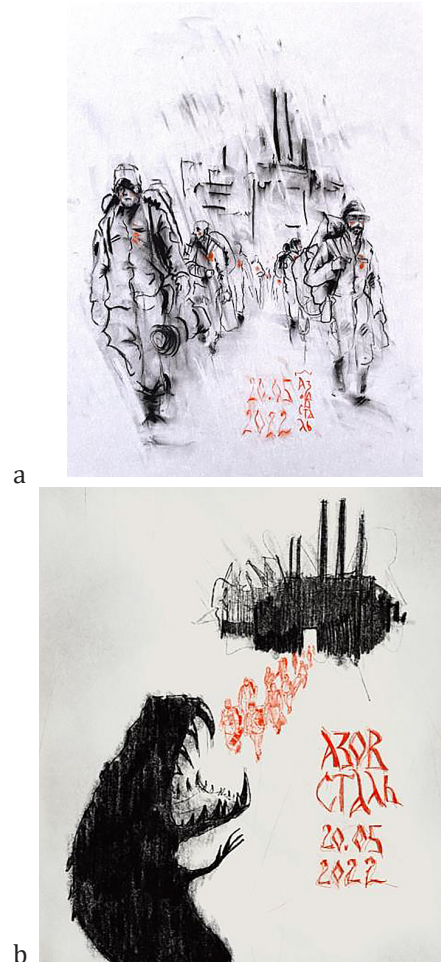


Figure 9. Illustrations by R. Barabakh dedicated to the defenders of Azovstal
Note: a – 2023, charcoal, paper; b – 2024, charcoal, pastel, paper
Source: R. Barabakh (n.d.)

Barabakh’s works were an emotional reflection of the reality faced by Ukrainian soldiers. These compositions also feature iconographic visual language, manifested in the choice of font and iconographic text abbreviations. This artistic technique may reflect both the artist’s professional experience in iconography and serve as a symbolic marker that gives the works additional symbolic meaning. In June 2022, icon painter R. Barabakh created an illustration (Fig. 10) in honour of soldier Mykhailo Dianov, whose photographs taken during his exit from Azovstal became famous and widely circulated in the media. The artist graphically depicted a portrait of the soldier, behind whom he painted a

pastel image of Archangel Michael as a guardian angel. Iconographer R. Barabakh illustrated the archangel with a fiery sword and deliberately gave the archangel the portrait features of M. Dianov. As noted by V. Ovsii-chuk & D. Krvavych (2000), Archangel Michael is traditionally considered the leader of the heavenly army and the patron saint of many military structures.



Figure 10. Comparison of artistic and photographic images

Note: a – R. Barabakh, “Archangel Michael” (2022), pastel on paper; b – photo by M. Dianov taken while leaving Azovstal (Mariupol, 2022)

Source: R. Barabakh (n.d.), N. Dym (2022)

R. Barabakh (2025) noted in a personal interview that while working on this piece, he did not know whether Mykhailo Dianov would return from captivity, and emphasised that his figure had already been recorded in history. In the image, the author deliberately contrasted the figure of the Ukrainian defender with that of the Russian soldier leading him into captivity. According to R. Barabakh, the Russian soldier is presented as “just dust, a shadow” that will crumble. The work emphasises that true courage, will and strength remain in people’s memories regardless of circumstances. This example clearly demonstrates how contemporary artists resort to personification, giving the images of saints the portrait features of real heroes. The image of Archangel Michael appears not only as a symbol of heavenly protection, but also as a visual embodiment of M. Dianov himself.

Mykhailo Skop also resorted to a similar representation in his work, creating the poster “Ukrainian Martyr”, in which he depicted a soldier as a modern martyr. In

this way, a specific hero “outgrows” the context of personal history and acquires a sacred dimension. At the same time, as researcher M. Levytska (2023) noted, the author preserves the formal language and means of poster graphics, transforming the modern poster and its hero into an icon of the new era. It should be noted that this practice is not new to Ukrainian iconography. For example, T. Lesiv (2021) mentioned that among the biblical and Christian themes in the paintings of St. Michael the Archangel Church in the village of Veryn, Mykolaiv district, created by Mykola Havryliv, there is a composition illustrating the events of the Maidan. Also, in the composition “The Appearance of Christ to the People”, almost all the images have the portrait features of the author’s contemporaries.

In June 2022, R. Barabakh (n.d.) created an illustration dedicated to communion at Azovstal, which he published on social media, emphasising the significance of this act as a sacred communal meal and a symbol of solidarity among the defenders (Fig. 11). The iconographer depicted the distribution of bread among people who were forced to hide from constant shelling at Azovstal. In it, the author highlighted mutual support in the most difficult times of trial, allegorically comparing the meal to Holy Communion. Thanks to the symbolic system in the composition, the viewer intuitively reads the red accents in the work as a symbol of Christ’s blood, and the image of bread as an allegory of the Christ’s body. Through such artistic means, the author gave the work a sacred meaning, transforming the meal at Azovstal into a symbolic image of sacrifice and spiritual unity.



Figure 11. R. Barabakh, “Communion at Azovstal” (2022)

Note: pastel, paper

Source: R. Barabakh (n.d.)

In July 2022, civilians were killed as a result of a missile strike on the central part of Vinnytsia carried out by the Russian military. As reported in an article by S. Rainsford (2022) on BBC News, a photograph of a bloodstained pink pram belonging to a deceased child attracted particular attention in the media. Its image, as well as other visual symbols of the tragedy, gained widespread international publicity and were

interpreted in reflective graphic works by artists U. Krekhovets and R. Barabakh. In particular, R. Barabakh created an illustration (Fig. 12a) depicting a bloodstained overturned pram. U. Krekhovets created an image of a mother mourning her child (Fig. 12b). The artist also depicted a spear piercing a child's pram, symbolically emphasising the brutality of Russian aggression and its consequences.

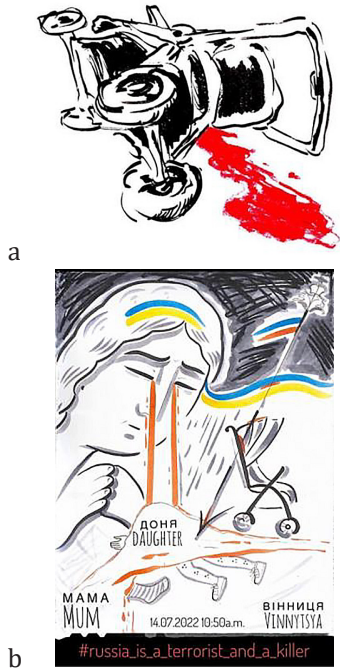


Figure 12. Illustrations of a pram following the missile strike on Vinnytsia

Note: a – R. Barabakh (2022), ink, pen, acrylic, paper;

b – U. Krekhovets (2022), liners, paper

Source: R. Barabakh (n.d.), U. Krekhovets (n.d.a)

On the night of 28 to 29 July 2022, in the village of Olenivka, Donetsk region, 53 soldiers of the Azov regiment were killed in an explosion in a building where Ukrainian prisoners of war were being held. According to A. Halasiuk (2024), eyewitnesses said the explosion might have been planned in advance, and Russian federation reps delayed giving medical help to the injured. The events in Olenivka were reflected in the artistic interpretations of U. Krekhovets, R. Barabakh, and D. Movchan, who addressed the theme of captivity and the tragic death of soldiers in their works. U. Krekhovets created an emotional sketch depicting many figures of Ukrainian soldiers with their hands folded in prayer, surrounded by barbed wire (Fig. 13a). At the same time, icon painter R. Barabakh created an illustration depicting figures of men, signing their images on the sides in a font characteristic of icon painting – Holy Warrior (Fig. 13b). The author depicted the figures of soldiers with halos, portraying them as martyrs. The central figure stands out with the inscription “Martyrs”

on his chest with the date 29.07.2022, which enhances the tragedy. The figures are drawn rather schematically, some details of the bodies are partially erased or drawn in black, emphasising death and destruction. As researcher S. Wanner (2022) emphasised, the sacrifice of soldiers takes on a sacred meaning, similar to the sacrifice of saints, and becomes the basis for new forms of national community. Artist D. Movchan also created a work dedicated to the memory of those who died as a result of the terrorist attack in the village of Olenivka (Fig. 13c). The author depicted two figures of mutilated human bodies lying horizontally, as if in weightlessness. The men are depicted with missing limbs. In this way, D. Movchan emphasised the terrible consequences of the Russian terrorist attack. Thus, the works of three different artists were united by a deep emotional response to the tragedy in the village of Olenivka, which manifested itself in various artistic strategies of interpretation, each of which represented an individual vision of the event and ways of visualising collective pain.

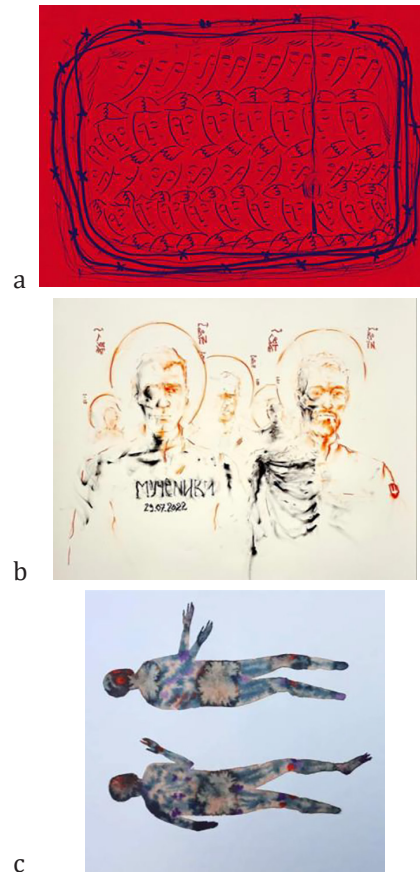


Figure 13. Illustrations dedicated to those who died in the terrorist attack in the village of Olenivka

Note: a – U. Krekhovets, “Martyrs of Ukraine. Olenivka. 29.07.22” (2022), liners, paper;

b – R. Barabakh, “Martyrs of Azovstal” (2022), pastel, paper;

c – D. Movchan, “Burnt Bodies” (2022), watercolour, paper

Source: R. Barabakh (n.d.), U. Krekhovets (n.d.a),

D. Movchan (n.d.)

Summarising the analysis of the above-mentioned works, it is appropriate to consider speed sketches as a form of visual response to collective trauma. Such works function similarly to photo reports, capturing moments of pain, loss and destruction. In this context, artists appear as visual witnesses who, through visual means, not only document the course of the war, but also form a visual memory of crimes committed against the civilian population. J. Kabrońska (2016) mentioned in her work the creativity of E. Wiesel, who was a writer and one of the surviving victims of the Holocaust. In his texts, Elie Wiesel viewed testimony as a life calling, emphasising the need to convey the experience of catastrophe, because silence or refusal to do so, in his words, is a form of betrayal of memory. The absence of an active act of remembrance, in this context, is regarded as complicity in the crime. The idea of testimony as a moral duty resonates with the position of contemporary Ukrainian artists who, acting as eyewitnesses, consider the artistic recording of war events to be an ethically motivated practice. Their work takes on the significance of a means of preserving collective memory and passing on experience to future generations.

As S. Stoyan (2022) noted, war radically transforms both the basic foundation of creativity and the end result – the work of art. Artworks created during wartime reflect the author's internal reaction to shocking events, manifesting the sublimation of traumatic experiences and the visualisation of existential fears, exacerbated by the awareness of one's own vulnerability and mortality. Thus, quick sketches and other graphic works not only document events, but also convey the psychological and emotional experience of artists, providing a deeper understanding of the impact of war on creativity. S. Sontag (2024), analysing war photographs, emphasised that their task is not so much to find solutions to prevent tragic situations as to recognise the scale of suffering caused by human cruelty and to spread knowledge about it. Based on her theses, it may be concluded that emotionally charged rapid works by Ukrainian artists, created under the influence of their experiences of war, like war photographs, do not have the power to stop hostilities or guarantee that such tragedies will not be repeated. However, at the same time, they play an important role in visualising the truth about war, its devastating consequences and the scale of human suffering.

After the first six months of full-scale Russian-Ukrainian war, terrorist acts and shelling carried out by Russia against Ukraine did not stop. During this period, events took place that significantly affected public life, confirming the systematic nature of military actions against the civilian population and infrastructure. However, it was observed that the number of such works by artists decreased with each passing year. An analysis of 164 graphic works created by the

forementioned artists and published on social media showed a tendency for the number of works dedicated to the theme of war to decrease with each subsequent year. Thus, in 2022, 103 works were created, in 2023 – 42, and in 2024 – only 19. This dynamic indicated a gradual decline in the intensity of artistic response to events during the war, which was probably due to emotional exhaustion. R. Barabakh mentioned in conversation that the number of his works had definitely decreased and this occurred after he joined the army. The author noted that he had not during his presence on the frontline for a long time, as it was difficult, but later it became easier for him.

In the context of the media's influence on society, there is a noticeable trend towards a gradual decline in emotional sensitivity in conditions of prolonged information stress. Under the constant threat of war, a process of psychological habituation takes place: what initially caused shock and a deep emotional reaction eventually ceases to have the same effect. As S. Sontag (2024) noted, adaptation to an excessive amount of traumatic information manifests itself through avoidance, emotional detachment, or a decrease in the level of response, which is a natural form of psychological defence. Such desensitisation affects not only the perception of media content, but also the nature of artistic representations of war. According to S. Sontag (2024), people may turn away from images of violence not only because they become accustomed to the constant flow of such images, but also because of fear. As a result, the intensity of visual comprehension of tragic experiences decreases, which is associated with the psychological exhaustion of both the artists themselves and society as a whole. Prolonged exposure to threats and constant encounters with manifestations of violence contribute to a decrease in emotional sensitivity and limit the possibilities of artistic expression.

The results confirmed and at the same time expanded existing approaches to studying the role of iconographic symbolism in the representation of war. The study proved that the transformation of iconographic images in contemporary Ukrainian art is closely linked to the experience of war. As recent studies have shown, the war stimulated the formation of a new pantheon of heroes who gradually acquired the characteristics of saints. According to the conclusions of S. Wanner (2022), in the public space of Independence Square and subsequent military events, the deaths of protesters and soldiers were interpreted as sacrifice, comparable to the martyrdom of Christ. Crosses, icons, and improvised shrines created the feeling that the dead were martyrs and saints of national resistance. This idea was directly embodied in the visual works of contemporary artists mentioned in the study. These artists combined traditional iconographic images with figures of modern defenders, endowing them with the traits of saints. This

combination of the sacred and the modern creates a kind of new mythology that shapes collective memory.

According to the conclusions of G. Kolesnyk (2024), in the visual culture of war, Ukraine is often personified in the form of female images – mother, guardian, warrior. A special place is occupied by the image of the Virgin Mary, which is superimposed on the allegory of Mother Ukraine. The study confirmed this trend: images of the Virgin Mary often appeared as defenders of the nation, combining the traditional Christian understanding of motherhood with the symbolic image of Ukraine. Thus, a new iconographic layer is formed in wartime works, where sacred images are combined with the national idea. At the same time, Y. Yurchuk (2024) noted that sacred motifs in the visual culture of resistance are not limited to a narrow religious meaning, but rather function as a universal cultural code that is understandable to many and designed to evoke a strong emotional response. The results of the study partially confirmed this thesis: sacred images become understandable symbols for local and international audiences, thanks to which they overcome cultural barriers and affirm the phenomenon of post-secular holiness. However, the study also found that graphic works endowed with iconographic symbolism are often associated with religiosity, as artists consciously used traditional iconographic motifs to give their images a sacred dimension. As J.-K. Chung (2025) noted, sacred art and iconography play a key role in shaping religious identity, as they convey multi-layered spiritual meanings through colours, shapes and symbols. This allows to maintain an emotional and psychological connection with religious archetypes and strengthen the symbolic power of works in the context of war.

Particular attention should be paid to the dissemination of graphic works in the digital space. E. Olzacka (2024) pointed out that Ukrainian war posters have taken on new functions in the age of digital media: they combined physical presence in urban space with active life in the online environment. The researcher emphasised that posters not only retain their traditional features, but have also become a component of digital participatory culture, where users can download and distribute them. Thanks to this, they have gone beyond the boundaries of classical propaganda and have become a tool for documenting events in real time and mobilising communities, both in Ukraine and abroad. This study expanded on this idea, showing that iconographic images in graphic works are actively shared on social media, where they become a tool for documenting the war in real time and supporting the spiritual aspect of viewers. Thus, contemporary graphic works by Ukrainian artists function similarly to the posters described above by the researcher. They not only convey sacred images, but also become part of digital culture, serving as a means of forming a shared memory and a “spiritual weapon” in the global space.

The study showed that Ukrainian icon painters actively used digital space to disseminate their works. An important feature of this practice is the speed of response. Graphic works shared on social media functioned as visual “chronicles” of the war, recording events in real time. In the digital environment, such works went beyond the national context, becoming understandable symbols for international audiences in particular. The artists mentioned above documented the events of the war in their graphic works, using iconographic motifs, which gave them additional meaning – they became carriers of sacred images and spiritual content, which strengthened their role in shaping collective memory and understanding the war experience.

CONCLUSIONS

The rapid graphic works of icon painters, created in wartime conditions, are valuable documentary evidence recording the experience of war, suffering and resistance, as the speed sketches were based on photo reports or real events witnessed by the artists themselves. In this context, art becomes a means of recording historical events and reflecting on the experience of war. The analysed works by R. Barabakh, U. Krekhovets and D. Movchan demonstrated a synthesis of the visual language of iconography with the current political and social context. Among the key artistic strategies of the artists were the encryption of important meanings through the iconographic sign system, the personification of contemporary heroes in the images of saints, the use of local sign systems (depicting the patrons of specific cities), reflecting and documenting real events, and actively using social networks to disseminate works and engage audiences in reflection, forming a new model of digital testimony and activism. Although the works discussed in the article are not formally icons, they clearly reflect the language of iconography: symbolism, composition, and a system of signs.

In the context of war for Ukrainian icon painters, the icon has transformed into a means of recording and comprehending events, becoming a kind of informational weapon. The works mentioned perform social, communicative, and memorial functions, contributing to the formation of a visual memory of war. At the same time, there was a tendency towards a decrease in the number of such works, which may indicate the emotional exhaustion of artists and the gradual adaptation of society to a prolonged state of threat. Thus, the study confirmed that iconographic images undergo transformation during war. Artists adapt traditional images to contemporary realities. Their works become an important visual testimony to the tragic events of war and national resistance. In the perspective of further research, it is advisable to conduct an in-depth analysis of the visual strategies used by Ukrainian icon painters in their works created in the context of war. First of all, it is worth highlighting the iconographic images

that artists refer to, tracing how these images are re-interpreted, combined with contemporary elements, or transformed into new visual narratives.

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REFERENCES

- [1] Barabakh, R. (n.d.). *Instagram profile*. Retrieved from <https://surl.li/zfvaeg>.
- [2] Barthes, R. (1991). *Mythologies*. New York: The Noonday Press.
- [3] Chung, J.-K. (2025). Sacred art and iconography in religious traditions. *Interdisciplinary Cultural and Humanities Review*, 4(1), 35-45. doi: 10.59214/cultural/1.2025.35.
- [4] Donetsk Regional State Administration. (2024). *March 16 – the second anniversary of the Russian bombing of the Mariupol Drama Theater*. Retrieved from <https://surl.li/arfahu>.
- [5] Dym, N. (Ed.). (2022). Ukrainians raised over 6 million in one day to help freed marine Dianov. *Novynarnia*. Retrieved from <https://novynarnia.com/2022/09/24/dianov-6/>.
- [6] Halasiuk, A. (2024). "I'm sure it was a planted bomb. It was revenge and execution". Olenivka terrorist attack: Testimony of an 'Azov' fighter who survived. *Suspilne Donbas*. Retrieved from <https://surl.lt/ytnmwq>.
- [7] Horban, S.I. (2024). Influence of the Russian-Ukrainian war on the creativity of the iconography school named after St. Porfiry Kavsovalivit. In *The functioning of culture and art during the war: Scientific monograph* (pp. 63-88). Riga: Baltija Publishing. doi: 10.30525/978-9934-26-418-4-4.
- [8] Hulievych, S. (2023). Graphic art of Ukraine as a statement of war. *Contemporary Art*, 19, 200-207. doi: 10.31500/2309-8813.19.2023.294878.
- [9] International Organization for Migration. (2022). *Ukraine internal displacement report: General population survey, round 2*. Retrieved from <https://surl.li/dxdwug>.
- [10] Kabrońska, J. (2016). *Memory and imagination: Artwork as a form of testimony*. In *Memory, forgetting and creating* (pp. 88-94). Gdańsk: Gdańsk University Press.
- [11] Kolesnyk, G. (2024). Warrior of the light: Female personifications of Ukraine on mass media during the Russo-Ukrainian war. In *Ladies in arms* (pp. 293-316). Bielefeld: Transcript. doi: 10.14361/9783839469552-017.
- [12] Kot, S., Mozolevska, A., Polishchuk, O., & Stodolinska, Y. (2024). The discursive power of digital popular art during the Russo-Ukrainian war: Re/shaping visual narratives. *Arts*, 13(1), article number 38. doi: 10.3390/arts13010038.
- [13] Krekhovets, U. (n.d.a). *Instagram profile*. Retrieved from <https://surl.li/nvnxwc>.
- [14] Krekhovets, U. (n.d.b). War. Sketches. The sacrality of the everyday. *War.Sketches*. Retrieved from <https://www.warsketches.in.ua/>.
- [15] Kurtiak, L. (2022). "To get rid of greyness, straighten your shoulders, add color and faith," – icon painter Uliana Krekhovets. *Ukrainian Greek Catholic Church*. Retrieved from <https://surli.cc/ukvptx>.
- [16] Lesiv, T. (2021). *Icon painting of Galicia from the late 19th to the early 21st century: Artistic image and theoretical discourse*. (Doctoral dissertation, Lviv National Academy of Arts, Lviv, Ukraine).
- [17] Levchenko, M., Lymarenko, L., & Tereshchenko, N. (2025). Art on the front line: Visual culture of war and the image of victory in Ukrainian art discourse 2022-2024. *Ukrainian Culture: Past, Present, and Development Paths*, 50, 100-108. doi: 10.35619/ucpmk.50.944.
- [18] Levytska, M. (2023). Religious imagery in the visual field of war: New references to the tradition. *Text and Image: Essential Problems in Art History*, 1(15), 43-59. doi: 10.17721/2519-4801.2023.1.03.
- [19] Levytska, M. (2024). Artistic resistance and media activism: Ukrainian art practice in the warfare conditions of the 2022-2023. In *The functioning of culture and art during the war: Scientific monograph* (pp. 144-158). Riga: Baltija Publishing. doi: 10.30525/978-9934-26-418-4-7.
- [20] Lokshuk, I., Cherednychenko, O., Kopeliuk, O., Sediuk, I., & Pototskyi, S. (2024). Resilience and resistance: Ukrainian art under martial law. *Amazonia Investiga*, 13(82), 70-80. doi: 10.34069/AI/2024.82.10.5.
- [21] Lozova, L. (2025). *Marian iconography in Ukraine during wartime and its Byzantine prototypes: Theologica and social implications*. In L. Škof, E. Holmes & P. Smytsnyuk (Eds.), *Marian reflections on war and peace*. London: Routledge.
- [22] Martyniuk, O. (2025). Icons of war: How an artist and icon painter became a warrior of the Ukrainian army. *Kharakter.Media*. Retrieved from <https://surl.li/rwvqhd>.
- [23] Movchan, D. (n.d.). *Instagram profile*. Retrieved from https://www.instagram.com/danylo_movchan/.

- [24] Olzacka, E. (2024). Ukrainian wartime posters as a tool of participatory propaganda during the Russian invasion of Ukraine. *Czech Journal of International Relations*, 59(2), 39-74. doi: 10.32422/cjir.782.
- [25] Ovsiihuk, V., & Krvavych, D. (2000). *Narrative about the icon*. Lviv: Institute of Ethnology of the National Academy of Sciences of Ukraine.
- [26] Ploky, S. (2023). *The Russian-Ukrainian war: Return of history*. Kharkiv: KSD.
- [27] Rainsford, S. (2022). Ukraine war: Four-year-old Liza killed by Russian attack on Vinnytsia. *BBC News*. Retrieved from <https://www.bbc.com/news/world-europe-62181726>.
- [28] Rendiuk, T. (2022). *Forced migration under extreme conditions of the Russian-Ukrainian war and its negative consequences for Ukraine's gene pool*. *Folk Art and Ethnology*, 3, 5-14.
- [29] Shefi, N., Orkibi, H., Biancalani, G., & Huss, E. (2025). The social arts in war-related loss and trauma: The case of Israel. *Journal of Loss and Trauma*, 1-26. doi: 10.1080/15325024.2025.2451357.
- [30] Sontag, S. (2024). *Regarding the pain of others*. Kyiv: IST Publishing.
- [31] Stoyan, S. (2022). *Art and war: The specifics of artistic transformations*. *Philosophical Thought*, 3, 119-124.
- [32] The World Medical Association. (2024). *Declaration of Helsinki. Medical Research Involving Human Participants*. Retrieved from <https://www.wma.net/what-we-do/medical-ethics/declaration-of-helsinki/>.
- [33] Wanner, C. (2022). *Everyday religiosity and the politics of belonging in Ukraine*. Ithaca: Cornell University Press.
- [34] Ya Gallery. (2022). *Danylo Movchan on creating art during the war. The muses are not silent*. Retrieved from https://www.youtube.com/watch?v=L11n3_MnhDY.
- [35] Yurchuk, Y. (2024). *The postsecular sacred: Religious imagery in the secular context of war in Ukraine*. In *War, migration, memory* (pp. 145-158). Bielefeld: Transcript.
- [36] Zorgdrager, H. (2025). *Ukrainian women's resilience and resistance through the lens of Marian trauma theology*. In L. Škof, E.A. Holmes & P. Smytsnyuk (Eds.), *Marian reflections on war and peace*. London: Routledge.

Графічні хроніки повномасштабної російсько-української війни у творчості українських іконописців

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Анотація. Актуальність дослідження була зумовлена активним поширенням експресивних графічних скетчів, створених митцями під час повномасштабної війни, значна частина яких поєднує іконописну традицію з елементами воєнного репортажу. Попри присутність цих творів у цифровому просторі та зростання інтересу до них, ілюстрування воєнних злочинів українськими іконописцями є недостатньо опрацьованою темою. Метою статті було окреслити роль графічних хронік у творчості Романа Барабаха, Уляни Креховець та Данила Мовчана та виявити художні особливості творів. У дослідженні було застосовано якісний і кількісний методи, формальний, іконографічний та семіотичний аналіз. Проаналізовано 164 твори, створені українськими іконописцями упродовж повномасштабної війни. У статті акцентовано увагу на роботах, виконаних з березня по липень 2022 року, коли спостерігалася найбільша художня активність іконописців у створенні графічних хронік. Проаналізовані твори демонстрували синтез іконописної візуальної мови з актуальним політичним і соціальним контекстом. У творчості митців було розкрито активне шифрування сенсів через знакову систему іконопису, персоніфікацію героїв у вигляді святих, звернення до локальних іконописних образів та документування конкретних воєнних подій. У статті відзначено зменшення кількості таких творів, що вказує на емоційне виснаження митців і поступову адаптацію суспільства до тривалої загрози. У процесі аналізу було простежено, що графічні хроніки, створені іконописцями під час війни, виконують низку важливих функцій, серед яких – соціальна, меморіальна та комунікативна. Зокрема, було виявлено, що соціальні мережі активно використовувались митцями для поширення творчості та залучення аудиторії до рефлексії. Практична цінність дослідження полягала у фіксації нових художніх стратегій, що демонстрували трансформацію іконописних образів в часі війни. Вивчення цих процесів дало змогу глибше зрозуміти роль сакрального мистецтва як форми рефлексії, документації та духовної підтримки в часи випробувань

Ключові слова: релігійні образи та мотиви; графічні твори; документальні свідчення війни; іконографія; сакральне мистецтво



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Analysis of global visual practices in the development of game projects

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Abstract. The relevance of the study is conditioned by the growing influence of visual practices on the development of aesthetics, narrative and user experience in video games, which makes them one of the key factors in the development of the global gaming industry. The purpose of the study was to analyse the leading visualisation trends that determine the artistic and technological features of game worlds of the last decade. The study was based on a comparative, and system and analytical approach, and included content analysis of games, interpretation of their visual design, and review of scientific sources. In total, 23 game projects of various genres and styles were analysed, which allowed identifying patterns in the development of the visual component of the industry and tracing the relationship between aesthetic solutions, technological innovations and commercial success. The sample included both high-budget AAA projects and independent indie games, which provided a more comprehensive vision of contemporary approaches to design. The analysis showed that current practices cover stylised graphics, cel-shading, pixel art, sumi-e and the latest solutions based on artificial intelligence, including procedural art and generative stylisation. It was revealed that an important role is played by the design of the user interface and user experience, which determines the intuitiveness and convenience of interaction, and "environmental storytelling" as a form of wordless narrative that deepens the emotional connection of the user with the game world. Special attention was paid to the use of cinematic techniques and interactive directing, which provide a hybrid gaming experience and bring video games closer to other forms of audiovisual art. The results of the study can be used by game designers, artists, educators, and digital media researchers as an analytical base for developing visually holistic and commercially successful games, and in the field of educational design, cultural analytics, and creating an inclusive visual environment

Keywords: stylisation; procedural graphics; UI design; cinematography; adaptability; game design; narrative

INTRODUCTION

In the current conditions of globalisation, digital culture played a key role in the development of new forms of visual communication, among which video games occupied a special place. They were no longer limited to just entertainment, but turned into powerful tools for storytelling, art, and social dialogue. In this context, visual practices became particularly important, since it was through them that the atmosphere, identity, and content of the game were transmitted.

The relevance of the study was determined by the rapid development of the gaming industry, the integration of the latest technologies, such as artificial intelligence and virtual reality, and the growing expectations of users regarding the quality of visual content. The analysis of contemporary world visual practices allowed developers to create competitive, deeply aesthetic, and functional projects that met the challenges of the time.

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Researchers have increasingly focused on the versatility and cultural significance of video games. Thus, N.P. Babii (2020) viewed modernity as a period of accelerated variability in aesthetic paradigms, in which modernity, postmodernism, hypermodernism, and metamodernism co-existed in a complex configuration. This confirmed that game projects were becoming part of a broader cultural field and forming new visual forms of artistic experience. M. Okur *et al.* (2024) focused on the art of graphic design in video games, analysing the transformation of styles from realism to stylised trends. The researchers argued that such changes directly affected the player's narrative, atmosphere, and level of emotional immersion. The study showed that the aesthetic solution was of key importance for the perception of the game, because it was the visual image that determined the nature of the user's interaction with the game environment. Similar conclusions were made by Z. Wu & M. Oktrova (2024), who found that virtual reality technologies can significantly enhance the emotional perception of artistic content, forming deeper immersion and new ways to interpret contemporary visual experiences.

N.A. Bracikowska (2021) explored the practice of environmental storytelling, which involved building a narrative through spatial and visual elements of the environment. The researcher proved that the location of objects, their composition and architectural connections served as carriers of history and content. This showed that the player gained access to the narrative not only through text or dialogues, but also through visual analysis of space. E. Ioannou & S. Maddock (2023) considered the possibilities of using neural networks for AI graphics styling. Using Neural Style Transfer Technology, the researchers demonstrated that a visual scene can adapt to a specific artistic aesthetic in real time without significantly losing performance. This opened up new perspectives for creating unique artistic styles within a single project, expanding the individual perception of each user.

In the same year, K. Fukaya *et al.* (2023) proposed a conceptual framework for intelligent generation of graphical assets. The researcher systematised approaches to the use of artificial intelligence in creating visual content and outlined problems related to quality control and preserving artistic integrity. This emphasised that the role of AI technologies went beyond instrumental support and became part of the creative process. E.J. Pretty *et al.* (2024) studied UI (User Interface) and UX (User Experience) design in the context of player cognitive load. They compared objective and subjective interaction indicators and proposed new approaches to developing interfaces based on multimodal feedback. This study confirmed that effective user interface design had a direct impact on the comfort and gameplay performance. H. Engström (2020) emphasised that creating video games was an

interdisciplinary practice that combined programming, design, visual arts, sound, scripting, and interface development. According to the researcher, game projects were not only technical products, but also complex cultural and technical phenomena that formed a new form of digital communication and aesthetic experience. This approach confirmed that the analysis of visual practices in video games required considering a broader cultural and interdisciplinary context.

Thus, the generalisation of contemporary scientific developments showed that visual practices in video games performed not only aesthetic, but also communicative, narrative, and cognitive functions. They determined the nature of the user's interaction with the game environment, influenced the degree of immersion and ensured the development of new cultural meanings. The purpose of the study was to analyse research that highlighted the impact of world visual practices on game projects.

MATERIALS AND METHODS

In the course of the study, a set of methods of scientific cognition was applied, which provided a holistic study of visual practices in contemporary video games. The main ones were: the method of comparative analysis, content analysis, case studies, and the system and structural approach. The use of these methods was determined by the versatility of the subject of research, which combines technological, aesthetic, and cultural components. Comparative analysis was used to identify differences and common features between different visual design styles (photorealism, stylised solutions, cel-shading, pixel art, sumi-e, low-poly, etc.). This allowed tracing trends in the choice of artistic strategy by developers and determining which approaches are most often used in contemporary projects. Content analysis of scientific sources helped to systematise existing approaches to the study of graphic style, UI/UX design, procedural art, and AI stylisation. This created a theoretical basis for further analysis of practical cases. The case study was used for an in-depth review of specific games as examples of successful implementation of visual strategies. This allowed tracing the relationship between the choice of artistic style and the effect of immersing the player in the world of the game. The system and structural approach allowed considering visual practices not in isolation, but as an interconnected system, where graphics, UI/UX, environmental storytelling, and cinematography form a single complex.

The study was carried out in stages:

1. The theoretical stage consisted of the collection and processing of literary and scientific sources that covered the problems of visual practices.

2. Analytical stage – systematisation of scientific approaches, determination of the main areas (graphic style, AI stylisation, procedural art, UI/UX,

environmental storytelling, cinematic presentation, cross-platform).

3. The practical stage – selection of games as objects of research, analysis and comparison of their visual features. The choice of projects was based on chronological, technological and stylistic criteria (relevance, use of innovative rendering technologies, procedural generation, artificial intelligence, visual effects or interface solutions, and compliance with a clearly formed artistic style that reflects the author’s vision of the developers and corresponds to the aesthetic concept of the game).

4. The generalising stage – development of conclusions about the role of visual practices in contemporary video games, their impact on narrative, cognitive perception, and cultural significance.

As part of the methodological analysis, 23 game projects were selected as a source of reference material, representing key stylistic and technological solutions in contemporary game design. *Borderlands*, *Genshin Impact*, and *The Legend of Zelda: Wind Waker* were used to study cel-shading aesthetics, while *Celeste* and *Undertale* were used to analyse pixel art. Examples of traditional artistic style were *Ōkami* (sumi-e) and *Gris* (watercolour). Spatial isometry in combination with cartoon visual is considered on the example of *League of Legends*, while generative graphics (procedural art) are based on *No Man’s Sky*. Some aspects of user interaction with the interface were studied using the example of *Dead Space* and *Ghost of Tsushima*; the principles of visual narrative were studied using *The Last of Us*, *The Last of Us Part 2*, *What Remains of Edith Finch*, *Dark Souls*, and *Bloodborne*. Motion capture technologies were analysed through *Detroit: Become Human*, *Uncharted 4*, and *Hellblade: Senua’s Sacrifice*; VR design – based on *Half-Life: Alyx*; AR mechanics – in *Pokémon Go*, and *The Witcher: Monster Slayer*; inclusive design principles – based on *God of War: Ragnarök*. The study was based on scientific papers and official information sites and developer blogs: the official *No Man’s Sky* blog (n.d.), the *Unreal Engine* site (n.d.) (Lumen and Nanite technologies), *Valve Developer Community* (n.d.) (*Half-Life: Alyx*), *miHoYo Dev Notes* (*Genshin Impact*) (HoYoLAB, n.d.). These sources helped to clarify the technical aspects of the visual practices used and confirm the accuracy of the information.

The use of these methods and materials allowed comprehensively analysing contemporary visual practices in video games. The analysis covered both stylistic characteristics of graphics and semantic aspects of the visual series considering the genre specifics and target audience of each project. The research methodology was designed in such a way that any researcher can repeat it using the same sources, analysis methods, and a list of game examples. This ensured not only scientific reproducibility of the results, but also created the basis for further comparative research in the field of game design, digital art, and visual communication.

RESULTS AND DISCUSSION

The graphic style of video games is one of the key consequences of the resonance of contemporary visual practices. It forms the visual language of the project, its atmosphere and aesthetic expressiveness. This is not just about appearance – it is an artistic choice that influences the perception of the plot, characters, and the entire game world. Contemporary developers are increasingly choosing stylised solutions that allow creating a unique identity of the game, working with symbolism and emotions, rather than photorealism. One of the most popular practical tools is cel-shading, an effect of animation or comics on 3D models that creates a unique style, as shown in Figure 1 (Zheng, 2024).

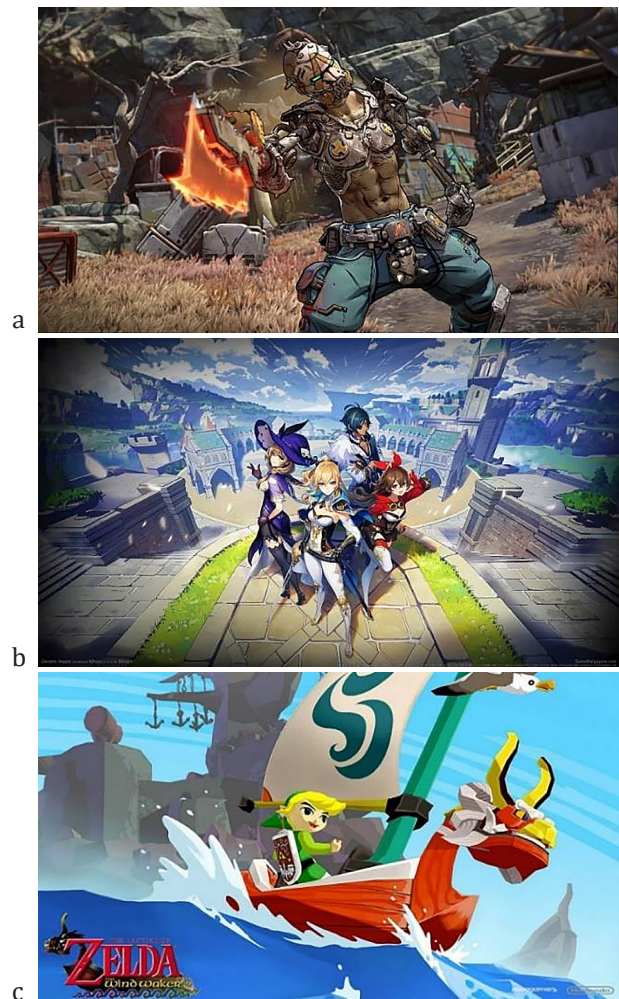


Figure 1. Examples of using cel-shading technology in game projects

Note: a – *Borderlands*; b – *Genshin Impact*; c – *The Legend of Zelda: Wind Waker*

Source: taken from Epic Games (n.d.), Nintendo (n.d.)

Cel-shading uses flat colours and contour lines, such as in *Borderlands*, *Genshin Impact*, or *The Legend of Zelda: Wind Waker*. This style is not only artistically recognisable, but also technically less demanding

on resources, which allows reaching a wider audience of players. Another area is pixel art, which uses the aesthetics of the old 8 and 16bit games, but in the contemporary context. In projects such as *Celeste* or *Undertale*, as shown in Figure 2, pixel stylisation becomes a form of visual expression of emotions, memory, and even nostalgia. This is not a technological limitation, but a purposeful artistic choice.

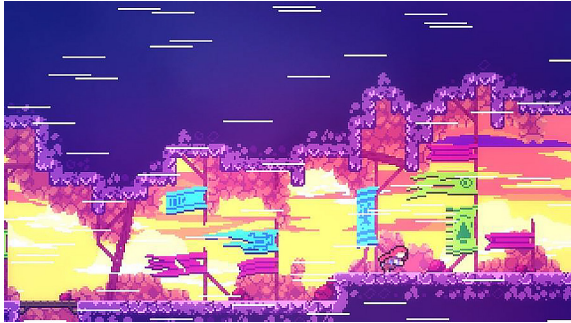


Figure 2. Pixel art of the *Celeste* game project
Source: taken from Epic Games (n.d.)

The watercolour or sumi-e (n.d.) aesthetics, which can be seen in *Ōkami* or *Gris*, mimic traditional painting techniques, turning the game into a visual poem, as shown in Figure 3. In addition, more and more projects are using low-poly, flat-design, and hybrid styles that combine minimalism with visual expressiveness (Kaasinen, 2023). This allows creating original worlds without unduly complicating the graphics.



Figure 3. Sumi-e aesthetics of the *Gris* project
Source: taken from Valve Corporation (n.d.)

One example of a successful visual style is the game *League of Legends* by Riot Games. It features stylised fantasy graphics from cartoon aesthetic where the characters have bright colours, exaggerated proportions, and crisp silhouettes. This approach allows visually distinguishing champions during dynamic gameplay, provides recognition, and creates visual consistency in a universe that combines magic, science, mythology, and fantasy. The rejection of photorealism allowed the game's authors to experiment freely with shapes and styles, while maintaining functionality in the visual load. *League of Legends* graphics

are based on an isometric 2.5D presentation, where 3D models are combined with patterned textures, giving the game the appearance of a stylised illustration. The visual style is constantly evolving: over time, Riot Games has updated the design of maps, redesigned the appearance of champions, improved visual effects, and even created animated cinematic videos in the Pixar style (Fig. 4). This integrated approach to graphics makes *League of Legends* not only visually appealing, but also makes it a benchmark for visual practice in MOBA games.



Figure 4. Visual style of the *League of Legends* map
Note: a – design before 2014; b – updated design after 2014
Source: taken from Epic Games (n.d.)

Thus, graphic style is a visual strategy that serves the artistic, technological, and even philosophical goals of the game. Its choice shapes the player's unique experience, interaction aesthetics, and cultural value of the digital project. Special attention should be paid to the tendency to use culturally specific styles that reflect the aesthetics of a particular region or historical period. For example, games inspired by Slavic or Japanese mythology often use elements of folk ornaments, calligraphy, or medieval painting to deepen the identity of the world. Such stylistic solutions add depth and authenticity to the game, making its visual language not only recognisable, but also culturally significant. Attempts to create a "visually recognisable language" are increasingly becoming a strategic goal for developers, especially in the competitive environment of the indie market.

Contemporary game projects are increasingly using artificial intelligence (AI) algorithms and procedural content generation (procedural art), which

form a new stage in the visual design of games. These approaches allow automating the creation of unique locations, objects, textures, and even an artistic style, while maintaining the artistic integrity of the project. They play a particularly important role in large and open worlds, where manual modelling of all parts would be extremely resource-intensive. AI stylisation is the application of deep learning to transform visual content in accordance with a specific artistic aesthetic (He, 2024). Models like Neural Style Transfer allow game developers to overlay an artistic style – such as impressionistic or fantasy – on a three-dimensional real-time scene. This opens up new horizons in styling the visual environment that were previously only available manually. On the other hand, procedural art is based on algorithms that create visual elements based on specified parameters and random values. One of the most famous examples is *No Man's Sky* (Fig. 5), where billions of planets with a unique landscape and flora are created procedurally. Such approaches allow achieving deep visual variability without the direct participation of the artist. The official blog of *No Man's Sky* (n.d.) explains how procedural generation became a central element of the game's design, creating the effect of endless space exploration.



Figure 5. Procedural generation of *No Man's Sky* game content

Source: taken from Valve Corporation (n.d.)

In addition, new game engines, such as Unreal Engine 5, combine AI algorithms with procedural generation to automatically illuminate scenes, optimise geometry and detail. Lumen and Nanite technologies (Skorobogatova, 2023; Unreal Engine, n.d.) provide realistic lighting and geometry processing even in stylised scenes. Thus, AI stylisation and procedural art form a new paradigm of visual design in video games. They not only reduce production costs, but also open up wide opportunities for artistic experimentation, giving each project a unique aesthetic. The use of AI in visual design also allows personalising the visual environment depending on the player's choice or behaviour in the game. For example, adaptive stylisation can change the palette, textures, or even atmosphere depending on the character's moral choice or emotional

state. This opens up a new level of interaction with the game world, where the visual language adapts to the user's actions. This approach combines artistic dynamics with technological flexibility, pushing the boundaries of traditional visual practice.

UI/UX design is a fundamental component of visual practice in the gaming industry (Khan *et al.*, 2025). They determine how the player interacts with the game, how comfortable they perceive information, and how quickly they navigate the world of the game. Unlike purely aesthetic graphics elements, UI/UX focuses on functionality, convenience, and emotional comfort. The evolution of game design has shown a shift in emphasis from overloaded interface elements to minimalism, readability, and adaptability (Bergman & Hermansson, 2023). One trend is the "invisible" or contextual HUD (Heads-up Display), as shown in Figure 6, where the interface only appears when it is really needed.



Figure 6. Examples of contextual HUD

Note: a – *Dead Space*; b – *Ghost of Tsushima*

Source: taken from Epic Games (n.d.)

For example, in *Dead Space*, health indicators are integrated into the hero's costume, and in *Ghost of Tsushima*, the player's path is indicated by the wind, not the arrow on the map. This approach enhances immersion in the game world and removes the barrier between the player and the virtual environment. Another important aspect is the adaptability of interfaces, especially for people with visual, hearing, or motor impairments. Contemporary games, such as *The Last of Us Part 2* or *God of War: Ragnarök*, implement dozens of parameters for customising the interface: font scale, colour filters, text voicing, vibrations for navigation, etc. (Fig. 7). This creates an inclusive visual experience that considers the needs of a wider audience.



Figure 7. Adaptive settings of the God of War: Ragnarök project

Source: taken from Epic Games (n.d.)

The UX design also covers navigation logic, hints, feedback effects, button animations, and reactions to player actions. A well-designed UX helps the player to learn quickly, increases the enjoyment of the game and reduces “game fatigue”. This is especially important in multiplayer games, where reaction speed and user-friendliness can decide the outcome of a battle. Thus, UI/UX design in game projects is a holistic visual and communicative strategy that forms the player’s experience, increases accessibility, and is a key component of the aesthetics of a contemporary game. It is also worth noting the role of game research (playtesting) in the development of an effective UI/UX design. It is user feedback that allows optimising the visual elements of the interface – change the colour of the button, the location of the menu, or the structure of hints. UI designers use human psychology to understand how players respond to information loads and visual cues. UX testing has become a mandatory part of development, and the interface has become an active component of audience engagement and retention. Environmental storytelling is a visual practice that conveys the plot, emotions, and mood of a game with space, details, colours, and object placement (Fig. 8) (Stewart, 2015). In this approach, the game world becomes an active narrative agent: through architecture, abandoned objects, lighting, or landscape, the player “reads” the story independently. This method allows forming a deeper dive, encourages interpretation and research.

One of the most striking examples is The Last of Us, where destroyed apartments, abandoned children’s toys or abandoned notes give the impression of a “quiet voice of the world”, telling about life before the disaster. In What Remains of Edith Finch, family members’ rooms are filled with personal items, colours, and shapes that reflect the character of each of them. In Dark Souls or Bloodborne, the history of the world is almost entirely conveyed through architecture, sculpture, symbolism, and the location of objects. This approach has another important advantage-interactive plot disclosure. The player independently creates fragments of information that enhances their emotional connection

with the events of the game. Environmental storytelling is also often combined with visual metaphors: cracks in a building can symbolise the psychological state of the character, the colour scheme changes depending on the stage of the story. From a technical standpoint, this practice requires close collaboration between level designers, artists, and screenwriters. Each object in the scene should have a meaning, be “part of the narrative”. This technique is especially actively used in indie games, where there are not enough resources for large-scale animation or cinematic inserts, so it is the world that takes on the role of the narrator. Thus, environmental storytelling is a visual language that allows speaking without words. It opens up new approaches to storytelling in video games, making the experience deeper, more personal, and more meaningful. Advanced technologies, such as raytracing, high dynamic range, and virtual lighting, significantly expand the capabilities of environmental storytelling.



Figure 8. Examples of narration through the medium
Note: a – The Last of Us; b – Bloodborne; c – Red Dead Redemption 2

Source: taken from Epic Games (n.d.), Sony Interactive Entertainment (n.d.)

For example, changing the lighting during the game day can not only serve realism, but also symbolise a change in the inner state of the hero or events in the

world. In *Red Dead Redemption 2*, the evening sun setting below the horizon can carry metaphorical subtext of the end of a journey or loss. Thus, even the “passive” elements of the world acquire a narrative function, and the visual space becomes a full-fledged part of drama.

Contemporary video games are increasingly using cinematic techniques – both visually and structurally. Cinematic animation is a practice in which character movements, camera, editing, and lighting take on the features inherent in films. Combined with drama and acting, this creates a strong emotional effect that brings the game closer to the movie without losing interactivity. The key tool here is motion capture (mocap), a technology that allows recording actors’ facial expressions and gestures to accurately transfer the movement to digital animation (Wibowo *et al.*, 2024). This makes characters in games like *The Last of Us Part 2* or *Detroit: Become Human* look compelling and believable. Realistic body animation, small facial reactions, eye contact – all this contributes to the emotional immersion of the player in the story. Another important element is installation and working with the camera. In cinematic games like *Uncharted 4* or *Hellblade: Senua’s Sacrifice*, the camera simulates camera art: close-ups, objective offsets, zoom, sudden panoramas, and editing cuts are used. This approach allows directing the player’s attention, setting the rhythm of the scene, and enhancing emotional accents. In the case of *Hellblade*, the camera deliberately moves erratically, imitating the mental state of the main character – this is an example of a deep consistency of technical and artistic design. In addition, game trailers and intros are increasingly reminiscent of high-quality animated films. Riot Games, for example, creates cinematic videos (“Awaken”, “The-Call”) that not only advertise the game, but also expand its universe through cinematic stories, musical accompaniment, and editing (League of Legends, n.d.).

Interactive cinematic scenes are particularly popular, where the player does not just watch, but interacts with events. Such moments create the illusion of control even in dramatic cutscenes – as in *Detroit: Become Human*, where the player’s choice changes the editing sequence and the outcome of the scene (Fig. 9). This creates a hybrid experience in which the player is both an observer and a director, which gives a unique depth of immersion in the plot.

This technique transforms the concept of “cinematography” in video games, combining the visual language of cinema with the mechanics of interaction (Vargas-Aguilar *et al.*, 2024). With the development of digital technologies and the advent of a large number of devices (PCs, smartphones, tablets, VR helmets, AR glasses), visual practices in gaming projects are increasingly focused on cross-platform and adaptability (Fig. 10). This means that visual content is designed to maintain readability, artistic integrity, and functionality regardless of the platform.



Figure 9. Drama scene from *Detroit: Become Human*

Source: taken from Epic Games (n.d.)

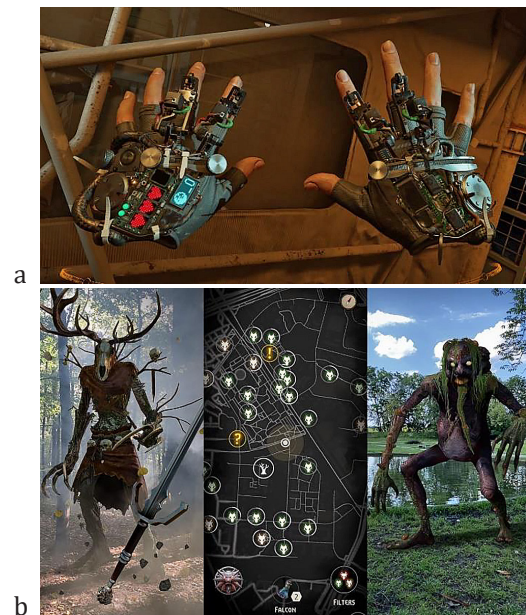


Figure 10. Cross-platform examples

Note: a – VR technology in *Half-Life: Alyx*; b – AR technology in *The Witcher: Monster Slayer*

Source: taken from Valve Corporation (n.d.), Google Play Games (n.d.)

In mobile games, designers often use simplified styling, a limited palette, and large interface elements. An example is *League of Legends: Wild Rift*, which retained the visual style of the original, but adapted the effects, model sizes, and camera to the mobile format. Other examples are *Genshin Impact*, which runs simultaneously on PCs, smartphones, and consoles while maintaining a high level of visual quality due to its modular graphics design and automatic texture scaling (HoYoLAB, n.d.). In VR projects, visual comfort becomes the key: avoiding overexposure, blurring and sudden movements, correct perspective, and light colour. The game *Half-Life: Alyx* is an example of how the visual adapts to full spatial interaction – objects have depth, and the interface is built into the physical world of the game, for example, in the form of holograms or screens

on the hero's hand (Valve Developer Community, n.d.). AR applications like Pokémon Go or The Witcher: Monster Slayer create visual content that overlaps with the real world. The visual response to lighting, context, and movement is important here, so dynamic zooming, background blur, and visual cues that don't interfere with the view are used. This requires creating light, expressive models that work against the background of a real environment.

The growing popularity of cloud gaming requires new approaches to visual optimisation. Games broadcast through streaming platforms must adapt not only to devices, but also to the speed of the Internet

connection. This indicates the need to dynamically reduce detail or compress textures without losing the overall style. Designers take these conditions into consideration even at the concept stage to ensure visual stability even with minimal technical capabilities. Thus, cross-platform development goes beyond hardware adaptation and turns into a holistic accessibility philosophy. The analysis showed that visual practices in contemporary video games cover a wide range of approaches – from stylised graphics (cel-shading, pixel art, sumi-e) to AI styling and procedural generation. The generalised characteristics of these practices are shown in Table 1, which illustrates their technological features.

Table 1. Overview of visual practices

Name of technology	Key features	Examples
Cel-shading	Computer rendering technique that creates the effect of hand-drawn graphics, as in comics or cartoons, using flat colours and sharp transitions between light and shadow, rather than smooth gradients.	Borderlands, Genshin Impact, The Legend of Zelda: Wind Waker.
Pixel-Art	Form of digital art where an image is created or edited at the level of individual pixels (the smallest points) using a bitmap image editor.	Celeste.
Sumi-e	Ancient Japanese technique of monochrome ink painting on rice paper. This art, originating in China, is characterised by the use of a wide range of shades of black ink and water, but sometimes also red.	Gris.
Low-poly, flat-design	Style that uses a small number of polygons (polygons) to create objects, giving them a simplified geometric look with clear edges. Flat design is a minimalist approach that focuses on flat elements without gradients or shadows, creating a two-dimensional interface rather than simulating volume.	League of Legends.
Procedural art	Art created using algorithms, rules, or instructions that automatically generate a visual result. In other words, the artist does not draw each element with his own hands, but sets a certain set of parameters or processes, and a work is born from them.	No Man's Sky.
Invisible Heads-Up Display	Design approach where familiar health panels, items, or a map disappear from the screen, and all information is transmitted through the game world itself or the character's behaviour.	Ghost of Tsushima, Dead Space.
Adaptive interface	Interface that adapts to the user or their conditions to make working with a programme or game more convenient and efficient.	God of War: Ragnarök, The Last of Us Part 2.
Environmental storytelling	Way to present the plot and atmosphere through the game space itself, rather than direct dialogues or cutscenes. That is, the player learns the story by observing the environment.	The Last of Us, What Remains of Edith Finch, Dark Souls, Bloodborne, Red Dead Redemption 2.
Synematic animation	Animation created according to the principles of cinema is as realistic and emotional as possible. In games and multimedia, this term usually refers to animation for cut scenes or moments that are presented with staging, camera work, and cinematic drama.	Detroit: Become Human.
Virtual reality	Technology that creates a complete sense of presence in the digital world for a person using special devices (helmets, glasses, gloves, controllers).	Half-Life: Alyx.
Augmented reality	Technology that overlays virtual objects or information on the real world in real time. That is, the player sees the usual environment around them, but it is "enhanced" by digital elements.	The Witcher: Monster Slayer.

Source: compiled by the authors of the study

The results of the study showed that contemporary visual practices in video games form not only an aesthetic dimension, but also determine the narrative, communication, and cognitive strategies of the player's interaction with the digital environment. The identified trends are generally consistent with the best

practices of leading scientists in recent years, although in some aspects they demonstrate new accents. Thus, M. Okur *et al.* (2024) argued that the transition from realism to stylised graphics in the gaming industry opened up opportunities for deeper emotional engagement of the user. The results obtained confirmed this

thesis: examples of cel-shading, pixel art, and sumi-e showed that the rejection of photorealism becomes a conscious artistic strategy. Simultaneously, the cultural significance of such stylisations was also emphasised – in particular, the use of local ornaments and traditional aesthetics. In the paper by M. Okur *et al.*, this aspect was less pronounced, because their emphasis was mainly on the functional and emotional aspects of graphic design.

K. Svensson & W. Bergman (2024), analysing the game *Unpacking*, showed that environmental storytelling functions not only as a way to “tell without words”, but also as a mechanism for forming multi-valued interpretations. The researchers emphasised the importance of the pace, ambiguity, and gradual appearance of objects that create space for the emotional narrative that is born in interaction with the player. In the current study, this position expands: along with the role of space as a carrier of history, it is proposed to consider environmental storytelling as a tool of the metaphorical and symbolic level of storytelling. For example, the colour scheme or destruction of architecture may reflect the psychological state of the character, and the change in lighting may reflect its internal transformation. Thus, the authors of this study agreed with the conclusions of K. Svensson & W. Bergman about the interpretative potential of this approach, but proposed a broader interpretation of environmental storytelling as a polyphonic visual language capable of combining plot, metaphor, and atmosphere.

The research by E. Ioannou & S. Maddock (2023) focused on the use of Neural Style Transfer for AI styling. The researchers showed the technical ability to adapt artistic styles in real time. Current research has confirmed the effectiveness of this tool, but also hypothesised its potential to create a personalised visual experience that varies depending on the player's choice or emotional state. This idea was presented to a lesser extent by E. Ioannou & S. Maddock, however, was becoming relevant in the context of the general trend towards individualising gaming practices. Similar considerations were observed in the study by S.A. Alharthi (2025), who analysed the role of generative artificial intelligence in game design. The researcher showed that AI significantly expands the possibilities at the stages of ideation and prototyping, increasing the productivity and variety of content. Simultaneously, the danger of excessive dependence on algorithms was noted, which can lead to a loss of originality and unification of artistic solutions. The study resonated with these findings: integrating AI into visual practices does open up new creative scenarios, but it also focuses on cultural and aesthetic risks that go beyond purely technical efficiency.

M.F. Maleki *et al.* (2024), reviewing the latest practices for integrating large language models into the field of procedural generation, emphasised that these technologies open up new opportunities for creating meaningful and variable game content. The researchers

noted that large language models are able to complement traditional procedural content generation algorithms, forming semantic depth and context, but efficiency is achieved only in combination with classical methods. The analysis carried out in this paper confirmed that procedural art not only remains relevant, but also significantly expands the boundaries based on examples like *No Man's Sky* or *Unreal Engine 5*. The combination of procedural algorithms and AI stylisation transforms it from a secondary tool to a full-fledged artistic method of world building, providing both visual variability and adaptability to the player's choices and actions. T. Zufri *et al.* (2022), who noted that even in the age of 3D graphics, the pixel style retains a unique aesthetic and cultural weight. The researchers stressed that pixel-art, despite the technological development of digital art, remains an integral part of contemporary design, as it combines nostalgia, recognition, and simplicity of visual language.

Regarding UI/UX design, J.M. Palm (2022) showed that the process of creating an interface in the gaming industry is based on close interdisciplinary collaboration and a constant balance between aesthetic expressiveness and functional clarity. The presented study was consistent with these findings, demonstrating that contemporary games are increasingly view the interface not only as a convenience tool, but also as an element of artistic style that can shape the aesthetics of the game. This allows expanding the understanding of UI/UX as a comprehensive visual and communication strategy that combines practical effectiveness and cultural and aesthetic functions. The study by H. Engström (2020) emphasised the interdisciplinarity of video game development as a complex cultural and technical phenomenon. The results confirmed this thesis: graphics, narrative, sound, and interface design are interconnected to create a holistic visual experience. Simultaneously, the authors of the current study concretised this idea, showing that visual practices act as a link between technological innovation and artistic design.

Thus, the study generally confirmed the conclusions of previous scientific papers, but also expanded their range by integrating a cultural perspective. While most researchers focused on technical or functional aspects, the analysis showed that visual practices in video games are also carriers of cultural memory, identity, and metaphorical thinking. This suggests that the visual style of contemporary games should be considered not only as an aesthetic tool, but also as a holistic strategy that combines artistic, technological, and cultural dimensions.

CONCLUSIONS

In the course of the analysis of contemporary visual practices in video games, it was found that the visual component plays a central role in shaping the gaming experience. The analysis showed that it is the graphic

style that determines not only the aesthetic appeal of the project, but also directly affects the cultural recognition of the game and its commercial success. It has been proven that the use of original artistic styles contributes to creating a unique atmosphere, enhancing emotional interaction and deeper immersion of the player in the game world. Special attention was paid to AI stylisation and procedural art. It was found that the integration of deep learning algorithms and automated content generation significantly expands the capabilities of designers and allows creating large-scale, variable, and inclusive game spaces. The analysis showed that due to these technologies, the production process becomes more flexible and efficient, time and financial costs are reduced, and simultaneously the quality and stability of visual content is improved.

The study also showed that UI/UX design and environmental storytelling principles form key mechanisms of interaction between the player and the game. Intuitive interfaces and a well-designed visual narrative environment have been proven to increase user engagement, make it easier to master mechanics, and encourage them to stay in the virtual world for a long time. Cinematic presentation, in turn, provides emotional

richness, promotes the development of drama and brings the game experience closer to traditional audiovisual arts. A separate result of the analysis was the identification of the growing importance of cross-platform connectivity. It has been proven that adapting graphics to various devices – from mobile to VR/AR – is a necessary condition for the versatility and competitiveness of gaming products, and ensuring their wider audience availability and compliance with contemporary market trends. The prospects for further research should be directed to the study of synergy between traditional artistic methods and innovative visualisation technologies, in particular, considering the local cultural context, the principles of inclusive design, and the needs of users with different capabilities.

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REFERENCES

- [1] Alharthi, S.A. (2025). Generative AI in game design: Enhancing creativity or constraining innovation? *Journal of Intelligence*, 13(6), article number 60. doi: [10.3390/jintelligence13060060](https://doi.org/10.3390/jintelligence13060060).
- [2] Babii, N.P. (2020). Aesthetics of modernity at the turn of the century: Modern – postmodern – hypermodern – metamodern. *Philosophy and Political Science in the Context of Modern Culture*, 11, 23-33. doi: [10.31866/2410-1915.21.2020.207866](https://doi.org/10.31866/2410-1915.21.2020.207866).
- [3] Bergman, E., & Hermansson, T. (2023). *Effect of head-up display design on game immersion*. (Bachelor's thesis, Umeå University, Umeå, Sweden).
- [4] Bracikowska, N.A. (2021). *Environmental storytelling – the liminal space between embedded and emergent narrative*. *Currents: A Journal of Young English Philology Thought and Review*, 6, 163-180.
- [5] Engström, H. (2020). *Game development research*. Skövde: University of Skövde.
- [6] Epic Games. (n.d.). *Store*. Retrieved from <https://store.epicgames.com/uk>.
- [7] Fukaya, K., Daylamani Zad, D., & Agius, H. (2023). Intelligent generation of graphical game assets: A conceptual framework and systematic review of the state of the art. *ACM Computing Surveys*, 57(5), article number 118. doi: [10.1145/3708499](https://doi.org/10.1145/3708499).
- [8] Google Play Games. (n.d.). Retrieved from <https://play.google.com/store/games>.
- [9] He, J. (2024). A study on the influence of artificial intelligence on image art design. *SHS Web of Conferences*, 181, article number 04028. doi: [10.1051/shsconf/202418104028](https://doi.org/10.1051/shsconf/202418104028).
- [10] HoYoLAB. (n.d.). Retrieved from https://www.hoyolab.com/circles/2/27/official?page_type=27&page_sort=hot.
- [11] Ioannou, E., & Maddock, S. (2023). Neural style transfer for computer games. *arXiv*. doi: [10.48550/arXiv.2311.14617](https://doi.org/10.48550/arXiv.2311.14617).
- [12] Kaasinen, I. (2023). *Texturing process in hand painted low poly game art*. (Bachelor's thesis, Tampere University of Applied Sciences, Tampere, Finland).
- [13] Khan, A., Shokrizadeh, A., & Cheng, J. (2025). Beyond automation: How designers perceive AI as a creative partner in the divergent thinking stages of UI/UX design. In *CHI'25: Proceedings of the 2025 CHI conference on human factors in computing systems* (article number 1105). New York: Association for Computing Machinery. doi: [10.1145/3706598.3713500](https://doi.org/10.1145/3706598.3713500).
- [14] League of Legends. (n.d.). *YouTube*. Retrieved from <https://www.youtube.com/@leagueoflegends>.
- [15] Maleki, M.F., Ferreira, L.B., Baldwin, A., Francis, K., & Togelius, J. (2024). *A survey with insights on emerging LLM integration*. *Proceedings of the AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment*, 20(1), 167-178.

- [16] Nintendo. (n.d.). Retrieved from <https://www.nintendo.com/us/?srsltid=AfmBOorjrOzGfEBCghsnTyvO-6Wtdrqebs8mPdtFollV0OnuthAOUCYH>.
- [17] No Man's Sky. (n.d.). Retrieved from <https://www.nomanssky.com/news>.
- [18] Okur, M., Kızıl, R., & Atamaz, E. (2024). The art of graphic design in video games: Beyond the visual. *Amazonia Investiga*, 13(78), 9-26. doi: 10.34069/AI/2024.78.06.1.
- [19] Palm, J.M. (2022). *User interface design in game development: How does the game industry create user interface design?* (Master's thesis, University of Skövde, Skövde, Sweden).
- [20] Pretty, E.J., Guarese, R., Dziego, C.A., Fayek, H.M., & Zambetta, F. (2024). Multimodal measurement of cognitive load in a video game context: A comparative study between subjective and objective metrics. *IEEE Transactions on Games*, 16(4), 854-867. doi: 10.1109/TG.2024.3406723.
- [21] Skorobogatova, A. (2023). *Real-time global illumination in Unreal Engine 5*. (Master's thesis, Masaryk University, Brno, Czech Republic).
- [22] Sony Interactive Entertainment. (n.d.). *PlayStation*. Retrieved from <https://www.playstation.com/uk-ua>.
- [23] Stewart, B. (2015). Environmental storytelling. *GameDeveloper*. Retrieved from <https://www.gamedeveloper.com/design/environmental-storytelling>.
- [24] Sumi-e. (n.d.). *What is sumi-e?* Retrieved from <https://www.sumi-e.it/en/what-is-sumi-e/>.
- [25] Svensson, K., & Bergman, W. (2024). Beyond the boxes: Analyzing environmental storytelling in unpacking. *SSRN*. doi: 10.2139/ssrn.4998331.
- [26] Unreal Engine. (n.d.). Retrieved from <https://www.unrealengine.com/en-US>.
- [27] Valve Corporation. (n.d.). *Steam*. Retrieved from <https://store.steampowered.com>.
- [28] Valve Developer Community. (n.d.). *Commentary system*. Retrieved from https://developer.valvesoftware.com/wiki/Commentary_System.
- [29] Vargas-Aguilar, R.D.C., Banda, I.C.R., Trujillo Pajuelo, M.L., & Cotito-Mujica, A. (2024). Data analysis on cinematic language in video games. In *2024 IEEE 7th international conference on computer and communication engineering technology (CCET)* (pp. 69-73). Beijing: IEEE. doi: 10.1109/CCET62233.2024.10837757.
- [30] Wibowo, M.C., Nugroho, S., & Wibowo, A. (2024). The use of motion capture technology in 3D animation. *International Journal of Computing and Digital Systems*, 15(1), 1063-1074. doi: 10.12785/ijcds/150169.
- [31] Wu, Z., & Oktrova, M. (2024). Impact of virtual reality technologies on the perception and interpretation of contemporary art. *Interdisciplinary Cultural and Humanities Review*, 3(2), 6-15. doi: 10.59214/cultural / 2.2024.06.
- [32] Zheng, X. (2024). The application and development of toon shading technology in mobile games. *Applied and Computational Engineering*, 76, 302-310. doi: 10.54254/2755-2721/76/20240624.
- [33] Zufri, T., Hilman, D., & Frans, O. (2022). Research on the application of pixel art in game character design. *Journal of Games, Game Art, and Gamification*, 7(1), 27-31. doi: 10.21512/jggag.v7i1.8565.

Аналіз світових візуальних практик у розробці ігрових проєктів

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Анотація. Актуальність дослідження зумовлена зростаючим впливом візуальних практик на формування естетики, наративу та користувацького досвіду у відеоіграх, що робить їх одним із ключових чинників розвитку глобальної ігрової індустрії. Мета статті полягала в аналізі провідних тенденцій візуалізації, які визначають художні й технологічні особливості ігрових світів останнього десятиліття. Дослідження базувалося на компаративному та системно-аналітичному підході й включало контент-аналіз ігор, інтерпретацію їхнього візуального дизайну та огляд наукових джерел. Загалом було проаналізовано 23 ігрових проєкти різних жанрів і стилістик, що дало змогу виявити закономірності у розвитку візуальної складової індустрії та простежити взаємозв'язок між естетичними рішеннями, технологічними інноваціями й комерційним успіхом. До вибірки увійшли як високобюджетні AAA-проєкти, так і незалежні інді-ігри, що дозволило отримати більш комплексне бачення сучасних підходів до дизайну. Аналіз показав, що актуальні практики охоплюють стилізовану графіку, cel-shading, піксель-арт, sumi-e та новітні рішення на основі штучного інтелекту, включно з процедурним мистецтвом і генеративною стилізацією. Виявлено, що важливу роль відіграє дизайн користувацького інтерфейсу та досвід користувача, який визначає інтуїтивність і зручність взаємодії, а також «environmental storytelling» як форма безсловесного наративу, що поглиблює емоційний зв'язок користувача з ігровим світом. Особливу увагу приділено використанню кінематографічних технік і інтерактивної режисури, що забезпечують гібридність ігрового досвіду та зближують відеоігри з іншими формами аудіовізуальних мистецтв. Результати дослідження можуть бути використані геймдизайнерами, художниками, освітянами та дослідниками цифрових медіа як аналітична база для розробки візуально цілісних і комерційно успішних ігор, а також у сфері освітнього дизайну, культурної аналітики й створення інклюзивного візуального середовища

Ключові слова: стилізація; процедурна графіка; UI-дизайн; кінематографічність; адаптивність; геймдизайн; наратив



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Features of illustrating books for children of different age groups

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Abstract. In the context of the rapid development of digital media and changes in visual culture, the creation of high-quality, aesthetically coherent, and psychologically grounded illustrative material becomes especially important, as it is capable of maintaining attention, fostering the development of imaginative thinking, and forming visual literacy in children of different age groups. The purpose of the work was to identify stylistic, compositional and technological features of the design of a children's book, taking into account the age characteristics of the reader. To achieve this goal, visual-analytical, comparative-typological and system-analytical methods were used. The article investigated the main features of illustrating books for children of different ages. It was substantiated that illustrating books significantly affects the formation of the worldview of the future generation, since illustration is often the first visual experience of a child, and the perception of the surrounding world depends on its quality and content. Their influence on the content and placement of text for each age group has been determined. Special attention was paid to the peculiarities of cooperation between illustrators and editors to form a holistic image of a children's book. The main stages of work on illustration, as well as the basic principles and significance of artistic design, were highlighted. The relevance of improving the illustrative accompaniment of children's books as an important factor in the formation of aesthetic perception, creative thinking and reading culture in children of different ages has been investigated. Particular attention was paid to taking into account the psychological and cognitive features of children's perception as a key task for illustrators, designers and editors working in the field of children's book publishing. The practical value of the study lies in the development of methodological recommendations for illustrators, designers and publishers on optimising the graphic design of children's publications in accordance with the age structure of the readership

Keywords: visual storytelling; narrative imagery; cognitive development; artistic techniques; pictorial analysis; reader engagement; visual semiotics

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INTRODUCTION

The relevance of this study lies in its timely exploration of the evolving role of illustration in children's literature, particularly against the backdrop of a rapidly changing visual culture and information environment. As children become increasingly exposed to diverse media, the quality and character of book illustrations are vital in shaping their cognitive, emotional, and cultural development. Understanding the intricate relationship between visual storytelling and young readers' engagement provides valuable insights for educators, publishers, and content creators, ensuring that children's books remain both meaningful and effective in fostering imagination, literacy, and critical thinking skills in the new digital age.

Recent studies emphasised that illustrations serve not merely as decorative elements but as an integral visual language that interprets and expands the meaning of the text. Researcher M. Babkina & B. Babkina (2021) pointed out that well-constructed images function as narrative extensions, guiding the child's emotional and cognitive understanding of the story. Modern scholarship highlighted a growing interest in the development of graphic culture within children's literature. For instance, R. Guo & A. Yulia's (2024) publication offered an insightful analysis of strategies for creating picture books that foster both cognitive and imaginative development in children. Drawing on recent trends and research in children's literature and illustration, the authors situated their findings within a broader context of evolving book design and educational practices, as reflected in adjacent studies and conference proceedings.

H. Novik & P. Zemtsova (2021) explored the evolution of visual approaches in children's book design, focusing on the integration of conceptual symbolism and atmospheric imagery. Their research highlighted that contemporary children's book illustrations increasingly use abstract and symbolic elements to create a deeper emotional and intellectual connection with young readers, inviting them to engage with the story on different levels. Similarly, V. Oliynyk (2023) analysed the structural and compositional principles of contemporary Ukrainian printed books, identifying key design features that improve readability and promote emotional engagement. The author emphasised how the thoughtful placement of text and images, as well as design elements such as colour and layout, significantly contribute to a more engaging and accessible reading experience for children.

Study C. Axell & J. Boström (2021) showed that picture books used in Swedish preschools predominantly present traditionally masculine-coded technological artefacts by focusing on their isolated functions rather than their societal context, thereby reinforcing early gendered perceptions of technology. The paper of C.N. Peters (2024) demonstrated that creating and

teaching the creation of children's books offers an effective, sustainable model of science communication that engages communities, trains early-career scientists, and bridges scientific research with public understanding. Colour, form and emotional expression as key components of child-oriented design were analysed by J. Bai *et al.* (2022), emphasising the importance of age-appropriate visual solutions.

A.D. Koshka *et al.* (2025) study examined the evolution of illustrated books within the Ukrainian cultural sphere, focusing on the interplay between traditional motifs and contemporary design through an analysis of Ivan Franko's works. The authors provided insight into how authorial design reflects broader shifts in Ukrainian publishing, situating their findings within current trends in children's literature and book illustration. The article by Z. Wu & Y. Wang (2025) explored how contemporary illustrations for children's books are evolving, combining traditional artistic techniques with the latest digital technologies to meet the growing demands of young readers. The authors also emphasised the sociocultural significance of visual narratives, which influence the development of emotional sensitivity and cultural tolerance in children.

Overall, the analysed literature showed that children's book illustration is a multifaceted phenomenon that integrates artistic, pedagogical, and technological aspects, confirming the relevance of its systematic study in contemporary publishing practice and confirming that it is becoming an increasingly dynamic field of artistic and academic research. The study aimed to establish the fundamental visual, structural, and technological principles that ensure age-appropriate design of children's books and, based on these findings, to formulate methodological guidance for professionals involved in their graphic production.

MATERIALS AND METHODS

The research methodology was based on a comprehensive content analysis of contemporary children's book illustrations, combined with pedagogical, psychological, and design-oriented approaches. The study applied several scientific methods that made it possible to systematise illustrative materials and identify graphic strategies suitable for different age groups. The method of content analysis was used to examine the compositional structure, stylistic solutions, dominant colour palettes, and the correspondence between visual and textual components. This method enabled the classification of illustrations according to colour harmony, character design, emotional expressiveness, symbolic depth, and structural organisation of the visual narrative. Comparative analysis was applied to evaluate differences in illustration styles across age categories and publishing formats. This helped determine how visual complexity, detail, and narrative density correlate with

children's cognitive abilities and perceptual development. Descriptive and structural methods were used to examine the organisation of interaction between authors and illustrators, the placement and frequency of illustrations, and the functional load of graphic elements such as maps, diagrams, symbolic motifs, episodic compositions, and spreads.

The research procedure included several consecutive stages: selection of materials, which involved identifying current children's book editions published within the last decade; evaluation of illustration quality according to criteria such as emotional expressiveness, clarity of composition, character relevance, developmental appropriateness, and the balance between text and imagery; classification of illustrative materials by visual style and intended age category; analysis of psychological and pedagogical sources on children's perception of visual information; generalisation of findings to determine the graphic strategies most effective for each age group. The selection of illustrations was grounded in the principle of representativeness and included works by contemporary illustrators whose materials were available in open sources. The analysed illustrations included works by: Clotilda Gubeli, Nataliya Kudliak, Simone Abel, Rostyslav Popsky, Yevheniya Gapchynska, Nataliya Gaida, Chris Riddell, Jim Kay, Brian Selznick, Kathleen Jennings, Vladyslav Yerko, Rodrigo Corral, Tom Sanderson, Karina Granda. Each illustrator was selected based on distinct stylistic features and the relevance of their works to the thematic and age-specific criteria of the study.

The interpretation of visual materials was supported by psychological and pedagogical concepts describing children's emotional response, imagination development, and visual literacy formation. These foundations allowed the study to determine how colour, composition, symbolic motifs, and character representation influence the cognitive and emotional reception of young readers. The methodological approach employed in the study made it possible to identify developmental, emotional, and artistic patterns that determine the effectiveness of illustration for each age group.

RESULTS AND DISCUSSION

Comparative analysis showed that illustration in children's books performs a wide range of functions – cognitive, emotional, structural and communicative. The combination of textual and visual content ensures narrative coherence and facilitates the child's transition from concrete sensory perception to higher-order symbolic understanding. The findings consistently demonstrated that, across all age groups, illustration remains essential for supporting reading motivation, developing imagination, and enhancing narrative interpretation. Table 1 presented core visual parameters – such as dominant colour strategies, level of detail, compositional complexity and narrative function – that were identified as most relevant for preschool, early school, middle school and early teenage readers. These parameters reflect both the empirical observations obtained during the research and the theoretical positions presented by contemporary scholars (Elysieieva & Myronova, 2025).

Table 1. Comparative characteristics of some requirements for printing publications for children of different age groups

Groups	Age readers	Font size for main text	Recommended illustrative edition	Number of hyphenations per page
First	up to 6 years old	14 and more	50% or more	up to 4
Second	6 to 10 years old	14 and more, and for scholars of III-IV grades 12 or more	35% or more	up to 8
Third	from 11 up to 14 years old	10 or more	30% or more	up to 12
Fourth	from 15 under 18 years old	9 and more	(not specified)	up to 12

Source: created by the authors

The first age category includes children aged 0-6 years and the graphic design of books has the following number of requirements. Books created for children who are just beginning the process of mastering reading skills belong to a special category of children's literature, where the visual component plays a decisive role in the perception and understanding of the plot. Illustrations in such publications not only complement the text, but also often serve as the main means of conveying the content, contributing to the formation of narrative thinking in children of early and preschool age. A significant part of these books is represented by the genres of lullabies, children's poems and songs, which

ensures the rhythm and melody of the perception of the text. Studies in neuropsychology have shown that when watching illustrated books in children under 5 years old, a greater number of brain zones associated with memory, recognition and the formation of new associations are activated than when listening only to text without pictures (Oliynyk, 2023).

The structure of such publications, as a rule, is characterised by a simplified plot, a minimum amount of text, the use of large font and understandable vocabulary (Glyuza & Tabakova, 2021). The format of the book also plays an important role: in order to activate the cognitive activity of the child, various interactive

forms are widely used – picture books, folding books, audiobooks, publications with lifting valves, elements of tactile or sensory influence, etc. (Fig. 1). These features contribute to the development of speech, fine motor skills, memory, imagination and the emotional sphere of the child.



Figure 1. An example of illustrative design of books for children of the first age category (0-5 years old)

Note: a – Clotilde Gubeli, illustrations for the book “Apchhi!”; b – Natalia Kudliak, illustrations for the book “ABC. Discover Ukraine!”; c – Simone Abel, illustrations for book “Look inside a farm”

Source: K. Daynes (2023), C. Gubeli (2024), K. Perkonos (2024)

Children aged 6-10 belong to the second category, and the graphic design of books for this group must meet special criteria. The overall visual design of a children’s book should combine brightness with compositional balance. To achieve an optimal aesthetic effect, designers should avoid oversaturation of colours or, conversely, the use of illustrations with insufficient contrast. Particular attention should be paid to the development of a visual image of the characters, in particular the main characters, which may contain traits that are correlated with the personal characteristics of the target readership.

Illustrative design for children of primary school age should comply with the principles of seriality and consistency, ensuring a logical unfolding of the plot. At the same time, it is recommended to avoid monotony in the depiction of scenes; the visual narrative should be built on the basis of key episodes with minimal repetition of graphic material (Fig. 2). For this age category, both the aesthetic characteristics of the illustrations and the functional convenience of the layout are equally important, which facilitates the reading process and more effective perception of the content.



Figure 2. An example of illustrative design of books for children of the second age category (6-10 years old)

Note: a – Rostyslav Popsky, illustrations for the book “Toreadors from Vasjukivka”; b – Yevheniia Gapchynska, illustrations for the book “Alice in Wonderland”; c, d – Natalia Gaida, illustrations for the book “36 and 6 cats”

Source: V. Nestayko (2004), H. Vdovychenko (2015), L. Carroll (2018)

The third age category includes children aged 11-14 years, and the design of books for this group requires adherence to a number of specific graphic requirements. According to research, the overall visual concept for adolescent readers should be based on atmospheric imagery, emotional expressiveness and symbolic depth, reflecting the growing cognitive and emotional needs of this age group (Polishchuk & Kalenyuk, 2023; Chelombitko, 2025). It is recommended to use a restrained colour palette, including monochrome or muted tones, with a clear emphasis on compositional structure and meaningful visual accents. Particular attention should be given to the depiction of key characters whose appearance can visually convey internal conflicts, psychological states, or personality traits relevant to young adolescents. Illustrations that portray emotions such as tension, hope or solidarity help teenagers recognise and articulate their own emotional experiences, supporting the development of emotional intelligence.

Illustrations in books for this age group are typically fragmented or episodic, appearing not on every page but primarily at turning points in the narrative or at moments with high semantic load (Novik & Zemtsova, 2021). In contemporary editions, visual elements may also include maps, symbolic motifs, diagrams or graphic metaphors that expand the interpretive possibilities of the text and guide the reader through complex storylines. At the same time, V. Oliynyk (2023) and Y. Song (2021) emphasised the importance of avoiding

excessive detail or overly decorative elements, as they can overwhelm the reader and interfere with comprehension of the central narrative. Instead, illustrations for this age category often appear as key compositions that emphasise major plot twists, psychological turning points or thematic accents. This approach contributes to deeper empathy, encourages analytical reading, and strengthens engagement with literature due to the interplay of visual and textual layers (Fig. 3).



Figure 3. An example of illustrative design of books for children of the third age category (11-14 years old)

Note: a – Chris Riddell, illustrations for book “Coraline”; b – Jim Kay, illustrations for the book “Harry Potter and the Philosopher’s stone”; c – Brian Selznick, illustrations for the book “The invention of Hugo Cabret”; d – Nataliya Gaida, illustrations for the book “Fedko, an alien from the Internet”

Source: S. Hrydin (2011), J.K. Rowling (2016), B. Selznick (2023), N. Gaiman (2025)

The fourth age category includes children from 15 to 18 years old, and for book publications focused on this group, a number of specific requirements for graphic design have been defined. The illustrative design of fiction for readers aged 15-18 is distinguished by a high degree of stylistic reflection and mainly performs a decorative-symbolic or conceptual-supporting function. At this age, teenagers already have developed skills of abstract thinking, so visual elements are not intended to facilitate the understanding of the content, but on the contrary – stimulate interpretation, the formation of aesthetic preferences and critical perception of art.

The overall visual solution of such publications should be based on the principles of stylistic conciseness, genre correspondence and artistic integration with the text. Instead of traditional plot illustration, author’s graphic symbols, emotionally rich covers or decorative compositions are increasingly used, which

act as a visual metaphor of the text. The use of experimental techniques is allowed – collage, digital illustration, typography, hand graphics with elements of naïve, surreal or conceptual art. In the design of fiction books for older teenagers, it is advisable to avoid the literal reflection of characters or events; instead, it is recommended to focus on visual metaphors, colouristic symbols or images that correlate with the inner state of the characters (Fig. 4). The cover, as a rule, acts as the main carrier of the illustrative message, performing the function of semantic identification of the work (Khromchenko, 2023).



Figure 4. An example of illustrative design of books for children of the third age category (15-18 years old)

Note: a – Vladyslav Yerko, illustrations for the book “Notes of a Ukrainian self-traveler”; b – Rodrigo Corral, book cover design “The fault in our stars”; c – Tom Sanderson, book cover design “The book thief”; d – Kathleen Jennings, illustrations for book “Stolen heir”

Source: L. Kostenko (2010), J. Green (2014), M. Zusak (2016), H. Black (2025)

For authors who do not illustrate their own books, collaboration with an illustrator is a key stage of the creative process. Effective cooperation requires clarity of vision combined with openness to artistic interpretation. As noted by V. Oliynyk (2023) and D. Weiwei (2023), an illustrator enriches the narrative by adding depth, atmosphere, and emotional nuance to the text. Balancing written and visual components is particularly important in picture books, where illustrations often carry equal or even greater narrative weight than the text itself. Visual elements should expand the story rather than duplicate it, supporting comprehension and sustaining the young reader’s interest. A harmonious integration of text and imagery ensures that the book remains accessible, emotionally resonant, and aesthetically appealing. Illustrators play a fundamental

role in shaping this experience: they interpret characters, design settings, and convey the emotional tone of the story, guiding young readers through the fictional world. Their work must be not only artistically strong but also tailored to the cognitive and perceptual abilities of the target age group. Cooperation between author and illustrator forms the basis of a cohesive and successful children's book. This collaboration involves continuous communication, exchange of ideas, and several rounds of conceptual and visual refinement to ensure the illustrations fully reflect the author's intent (Pshinka, 2021). Examples from children's literature illustrate the power of such partnerships. H. Novik & P. Zemtsova (2021) confirmed that an illustrator's contribution profoundly influences the emotional and

cognitive reception of a children's book. Creating illustrations for children's books is a multi-stage artistic process that spans from conceptual sketches to the polished, final artwork. Children's literature employs a wide range of illustration styles, each of which introduces its own emotional tone, visual language, and artistic atmosphere. The most characteristic illustration styles used in modern children's publishing are presented below (Fig. 5). Figure 6 showed specific examples of books that use different illustration styles. These examples demonstrate how the chosen artistic style influences the perception of the plot and the emotional atmosphere of the book, emphasising the importance of the right visual solution in creating a coherent and engaging experience for readers.



Figure 5. Styles of children's illustration

Source: created by the authors

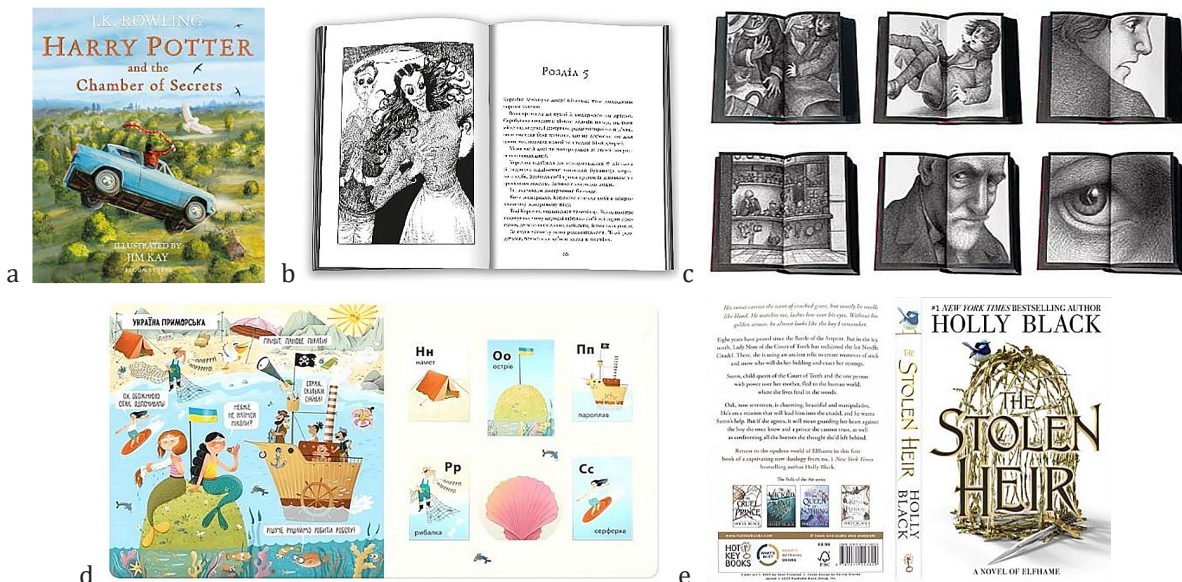


Figure 6. Examples of children's illustration styles

Note: a – realistic style: Jim Kay, illustration for “Harry Potter and the Philosopher’s stone”; b – animated (cartoon) style: Chris Riddell, illustration for “Coraline”; c – whimsical style: Brian Selznick, illustrations for “The invention of Hugo Cabret”; d – minimalist style: Natalia Kudliak, illustrations for “ABC. Discover Ukraine!”; e – vintage style: Karina Granda, book cover for “Stolen Heir”

Source: J.K. Rowling (2016), H. Black (2021), K. Perkonos (2024), N. Gaiman (2025), B. Selznick (2023)

Choosing the right style of illustrations is critical to enhancing and complementing the narrative. Younger children often prefer bright, animated styles that promote emotional engagement with the story, while older readers tend to prefer more detailed and realistic images. Fantastic and unusual styles are best suited to fairy tales and adventure stories, while realistic illustrations are best used in the context of serious or informative stories. The author's personal vision and the message they want to convey to the reader play an important role in the choice of style, which emphasises the importance of close collaboration between the author and illustrator to achieve artistic integrity. The colour scheme of illustrations is one of the main elements of artistic expression in children's books, performing the functions of aesthetic, figurative, and communicative influence. Colour images should be rich and intense, with maximum transmission of all shades of the palette. An important aspect is the harmonious combination of colours, which creates visual integrity. The illustration should be clear and consistent in its variations for each copy of the book and throughout the entire print run. Preference should be given to natural colours, as they contribute to a more realistic perception of the surrounding world by children, which corresponds to their cognitive and emotional needs.

The conducted analysis demonstrated that illustration remains a fundamental structural and communicative element of contemporary children's books. As noted in the research of M.P. Glyuza & I.S. Tabakova (2021), illustrations organise visual information and ensure initial comprehension of narrative content, functioning as a core component of the communicative structure of the text. V.F. Chelombitko (2025) further emphasised that illustrational material performs an educational and developmental function, supporting emotional responsiveness, shaping aesthetic perception, and facilitating a child's engagement with the storyline.

The review of empirical and theoretical sources revealed that children's book illustration depends significantly on age-related perceptual characteristics. According to the study X. Sun (2023) investigates the influence of illustrations within literary texts on children's reading comprehension, highlighting the significant role that visual elements play in supporting understanding and engagement during the reading process. This correlated with broader tendencies outlined in R. Bezugla *et al.* (2025), where contemporary illustrators increasingly apply atmospheric, symbolically saturated, and emotionally expressive stylistic solutions in books for older children, emphasising psychological nuance and narrative depth. In a similar context, V. Blikhar (2024) highlighted how the emotional and cognitive development of children, shaped by family upbringing strategies, also impacts their engagement with external stimuli, such as illustrations, thus reinforcing the need for age-appropriate visual content in children's literature.

The research also identified the importance of structural organisation in children's book design. K.V. Khromchenko (2023) pointed out that modern printed editions rely on balanced visual composition, clarity of form and functional distribution of graphical elements. These considerations allow illustrations to guide semantic comprehension without dominating textual information. The importance of aligning artistic solutions with publishing standards and reader needs is demonstrated in the work of C.M. Eng *et al.* (2020), who examined the influence of streamlining book illustrations on the development of graphic culture. Their findings showed that coherence between stylistic choices, age specificity, and narrative content remains a determining factor in the visual design of children's books. O.P. Polishchuk & M.I. Kalenyuk (2023) further expanded this perspective by analysing modern illustrated formats used in Ukrainian publishing houses, emphasising innovation, hybrid formats, and diversity in visual communication. Meanwhile, V. Elysieieva & H. Myronova (2025) noted a shift toward thematic, culturally embedded, and psychologically attuned illustration practices in the contemporary development of children's literature. C.M. Eng's *et al.* (2020) study used eye-tracking to explore how extra illustrations in beginner reader storybooks might distract children and hinder learning. The results showed that additional illustrations led to more distractions, reduced reading comprehension, and lower attention to relevant content, suggesting that streamlined visual design can better support literacy development in young readers.

The study showed that illustrations in children's books are an important tool that contributes not only to the perception of the text, but also to the emotional and aesthetic development of children. The choice of illustration style depends on the age characteristics of readers and narrative requirements, and is also important for attracting attention and maintaining interest in the book. A variety of approaches to the use of illustrations, particularly in the context of age groups, allows for the creation of books that best meet the needs of young readers.

CONCLUSIONS

Based on the conducted analysis of scientific, theoretical and practical sources, it was revealed that illustrations play a decisive role in shaping children's reading culture and significantly influence their emotional, cognitive and aesthetic development. The research findings demonstrated that illustrations do not merely accompany the text but often serve as an interpretative tool that helps young readers grasp plot dynamics, character traits and emotional nuances. Visual imagery was shown to stimulate imagination, support the development of critical thinking, and strengthen the reader's engagement with the narrative. Based on the analysis, four age categories were identified, each with

its own specific requirements for illustrations. The study showed that effective illustration design should correspond to the age-related perceptual characteristics of children, which allows for an increase in the level of emotional and cognitive engagement with the text. Based on the results of the analysis, recommendations were provided for working with each of these categories, taking into account their individual needs and characteristics of visual information perception. For younger readers, simplified forms, bright colour palettes and clear compositions are essential, while older children respond better to stylistically complex, conceptually rich and emotionally expressive visual solutions. The study identified that a balanced combination of artistic, semantic and educational components ensures the creation of a holistic visual-textual environment. This environment supports not only reading

comprehension but also emotional intelligence and the child's ability to interpret visual messages. Prospects for further research include the study of the impact of digital technologies on the perception of illustrative content, the development of criteria for assessing illustration quality in children's literature, and the analysis of adaptive and interactive formats that meet the evolving needs of modern young readers.

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REFERENCES

- [1] Axell, C., & Boström, J. (2021). Technology in children's picture books as an agent for reinforcing or challenging traditional gender stereotypes. *International Journal of Technology and Design Education*, 31, 27-39. doi: [10.1007/s10798-019-09537-1](https://doi.org/10.1007/s10798-019-09537-1).
- [2] Babkina, M., & Babkina, B. (2021). Role of illustration in children's book publishing. *Art History*, 37(1), 4-8. doi: [10.24919/2308-4863/37-1-1](https://doi.org/10.24919/2308-4863/37-1-1).
- [3] Bai, J., Zhang, H., Chen, Q., Cheng, X., & Zhou, Y. (2022). Technical supports and emotional design in digital picture books for children: A review. *Procedia Computer Science*, 201, 174-180. doi: [10.1016/j.procs.2022.03.025](https://doi.org/10.1016/j.procs.2022.03.025).
- [4] Bezugla, R., Oliynyk, D., & Khripun, V. (2025). [Modern trends in book illustration](#). In *VII international scientific and practical conference: Current issues of modern design* (pp. 238-241). Kyiv: Kyiv National University of Technologies and Design.
- [5] Black, H. (2021). *Stolen heir*. London: Hot Key Books.
- [6] Black, H. (2025). *Stolen heir*. Kharkiv: Vivat.
- [7] Blikhar, V. (2024). Peculiarities of the relationships of family upbringing styles and parental attitudes with children's fear and anxiety. *Psychology and Personality*, 14(1), 141-155. doi: [10.33989/2226-4078.2024.1.298775](https://doi.org/10.33989/2226-4078.2024.1.298775).
- [8] Carroll, L. (2018). *Alice in Wonderland*. Kharkiv: Ranok.
- [9] Chelombitko, V.F. (2025). Features of children's literature production. History, technologies, materials. *Press of the Kharkiv National University of Radioelectronics*, 2, 49-61. doi: [10.30837/PMW.2025.T2.049](https://doi.org/10.30837/PMW.2025.T2.049).
- [10] Daynes, K. (2023). *Look inside a farm*. London: Usborne.
- [11] Elysieieva, V., & Myronova, H. (2025). [Trends in the development of illustration in children's literature from origins to the present](#). In *Sustainable development of society and design activities in the space of territorial identity*. Kyiv: Boris Grinchenko Kyiv Metropolitan University.
- [12] Eng, C.M., Godwin, K.E., & Fisher, A.V. (2020). Keep it simple: Streamlining book illustrations improves attention and comprehension in beginning readers. *NPJ Science of Learning*, 5, article number 14. doi: [10.1038/s41539-020-00073-5](https://doi.org/10.1038/s41539-020-00073-5).
- [13] Gaiman, N. (2025). *Coraline*. Kyiv: Stone Publishing.
- [14] Glyuza, M.P., & Tabakova, I.S. (2021). [The use of illustration in the creation of a children's publication](#). In *Printing, multimedia and web technologies: Materials from the youth school-seminar of the IV international scientific and technical conference* (pp. 74-75). Kharkiv: Madrid Printing House LLC.
- [15] Green, J. (2014). *The fault in our stars*. London: Penguin Random House UK.
- [16] Gubeli, C. (2024). *Apchhi!* Kharkiv: Chitarium.
- [17] Guo, R., & Yulia, A. (2024). Research on creation strategies of picture books for children's cognitive and imaginative development. *Journal of Contemporary Educational Research*, 8(11), 194-201. doi: [10.26689/jcer.v8i11.8754](https://doi.org/10.26689/jcer.v8i11.8754).
- [18] Hrydin, S. (2011). *Fedko, a stranger from the Internet*. Lviv: Vydavnytstvo Staroho Leva.
- [19] Khromchenko, K.V. (2023). [Features of designing modern children's literature](#). In *XII all-Ukrainian scientific-practical conference "Art education: Scientific discussions"* (pp. 131-135). Kharkiv: Kharkiv National Pedagogical University named after H. Skovoroda.

- [20] Koshka, A.D., Zdor, O.H., & Lykholat, O.V. (2025). Illustrated book in the Ukrainian cultural space: Between tradition and modernity (based on the author's design for Ivan Franko's work). *Ukrainian Art Studies Discourse*, 3, 60-69. doi: [10.32782/uad.2025.3.8](https://doi.org/10.32782/uad.2025.3.8).
- [21] Kostenko, L. (2010). *Notes of a Ukrainian self-traveler*. Kyiv: A-Ba-Ba-Ha-La-Ma-Ha.
- [22] Nestayko, V. (2004). *Toreadors from Vasjukivka*. Kyiv: A-Ba-Ba-Ha-La-Ma-Ha.
- [23] Novik, H., & Ziemtsova, P. (2021). Modern illustration. A-ba-ba-ha-la-ma-ha publishing house. *Theory and Practice of Design*, 24, 95-103. doi: [10.18372/2415-8151.24.16296](https://doi.org/10.18372/2415-8151.24.16296).
- [24] Oliynyk, V. (2023). Signs of the uniqueness of the Ukrainian printed book in the context of the global digitalisation of art. *Culture and Arts in the Modern World*, 24, 243-252. doi: [10.31866/2410-1915.24.2023.287703](https://doi.org/10.31866/2410-1915.24.2023.287703).
- [25] Perkonos, K. (2024). *ABC. Discover Ukraine!* Kyiv: Artbooks.
- [26] Peters, C.N. (2024). Children's books for research-based outreach and science communication pedagogy. *Geoscience Communication*, 7(2), 81-90. doi: [10.5194/gc-7-81-2024](https://doi.org/10.5194/gc-7-81-2024).
- [27] Polishchuk, O.P., & Kalenyuk, M.I. (2023). [The specifics of design and popular formats of children's illustrated books of contemporary Ukrainian publishers](#). In *Visual arts in the context of contemporary cultural practices* (pp. 113-114). Zhytomyr: Zhytomyr State University.
- [28] Pshinka, N.M. (2021). Illustrating Shevchenko in children's publications of the 20th – early 21st centuries in the context of the development of book design. *Art and Education*, 1(99), 40-45. doi: [10.32405/2308-8885-2021-1\(99\)-40-45](https://doi.org/10.32405/2308-8885-2021-1(99)-40-45).
- [29] Rowling, J.K. (2016). *Harry Potter and the Philosopher's stone*. Kyiv: A-Ba-Ba-Ha-La-Ma-Ha.
- [30] Selznick, B. (2023). *The invention of Hugo Cabret*. Kyiv: Artbooks.
- [31] Song, Y. (2021). Research on interactive design in children's books. In *Proceedings of the 7th international conference on arts, design and contemporary education* (pp. 531-536). Paris: Atlantis Press. doi: [10.2991/assehr.k.210813.089](https://doi.org/10.2991/assehr.k.210813.089).
- [32] Sun, X. (2023). The influence of illustrations in literary texts on children's reading comprehension. *Lecture Notes in Education Psychology and Public Media*, 22, 204-212. doi: [10.54254/2753-7048/22/20230311](https://doi.org/10.54254/2753-7048/22/20230311).
- [33] Vdovychenko, H. (2015). *36 and 6 cats*. Lviv: Vydavnytstvo Staroho Leva.
- [34] Weiwei, D. (2023). Research on illustration creation of children's picture books. *Frontiers in Art Research*, 5(9), 76-80. doi: [10.25236/FAR.2023.050912](https://doi.org/10.25236/FAR.2023.050912).
- [35] Wu, Z., & Wang, Y. (2025). [Contemporary illustrations for children's books: Stylistic features and artistic images](#). *E-Revista de Estudos Interculturais*, 13, 1-20.
- [36] Zusak, M. (2016). *The book thief*. London: Penguin Random House UK.

Особливості ілюстрування книг для дітей різних вікових груп

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Анотація. В умовах інтенсивного розвитку цифрових медіа та зміни візуальної культури особливої ваги набуває створення якісного, естетично цілісного і психологічно обґрунтованого ілюстративного супроводу, здатного підтримувати увагу, сприяти розвитку образного мислення та формувати візуальну грамотність дітей різного віку. Мета роботи полягала у виявленні стилістичних, композиційних і технологічних особливостей оформлення дитячої книги з урахуванням вікових особливостей читача. Для досягнення цієї мети використано візуально-аналітичний, порівняльно-типологічний та системно-аналітичний методи. У статті досліджено основні особливості ілюстрування книг для дітей різного віку. Обґрунтовано, що ілюстрування книг суттєво впливає на формування світогляду майбутнього покоління, оскільки ілюстрація часто є першим візуальним досвідом дитини, а від її якості й змісту залежить сприйняття навколишнього світу. Проаналізовано стилі ілюстрування, їхній вплив на зміст і розміщення тексту для кожної вікової групи; окрему увагу приділено особливостям співпраці ілюстраторів і редакторів для формування цілісного образу дитячої книги. Висвітлено основні етапи роботи над ілюструванням, а також основні принципи та значення художнього оформлення. Досліджено актуальність удосконалення ілюстративного супроводу дитячих книг як важливого чинника формування естетичного уявлення, креативного мислення та читацької культури у дітей різного віку. Особливу увагу приділено урахуванню психологічних і когнітивних особливостей дитячого сприйняття як ключового завдання для ілюстраторів, дизайнерів і редакторів, які працюють у сфері дитячого книговидання. Практична цінність дослідження полягала у розробці методичних рекомендацій для ілюстраторів, дизайнерів і видавців щодо оптимізації графічного оформлення дитячих видань відповідно до вікової структури читацької аудиторії

Ключові слова: візуальне оповідання; наративні образи; когнітивний розвиток; художні методи; зображальний аналіз; залучення читача; візуальна семіотика

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