



Communication and cultural potential of graphic patterns in the fashion industry

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Abstract. The aim of this study was to identify the communicative and cultural potential of graphic patterns, taking into account the requirements of the contemporary fashion industry and the mechanisms of their influence on consumers. The research was based on the application of a comprehensive interdisciplinary approach, incorporating methods of visual and semiotic analysis, elements of cultural and art historical research, as well as a comparative analysis of contemporary fashion design samples. The study examined the key types of graphic patterns used in the fashion industry across various cultural contexts, including floral, geometric, and ornamental motifs. It was established that patterns containing floral and foliage elements perform the function of creating harmony and rhythm, while also contributing to the emotional colouring of the visual image. Geometric figures and line-based patterns were identified as universal semiotic forms, representing different symbols of stability, strength, and spiritual integrity depending on their orientation and cultural context. The research also revealed that the scale of patterns and their colour diversity play a significant role. For example, small-scale compositions (Fendi) create a sense of restraint and structural order; medium-scale patterns (Etro, Hermès) provide a balance between harmony and detail; while large-scale patterns (Dolce & Gabbana, Versace) enhance emotional impact and emphasise the distinctive identity of the brand. Colour palette decisions were likewise shown to exert a considerable influence on emotional and psychological perception. The analysis of the compositional principles of repetition, rhythm, and balance demonstrated that they contribute to a stronger emotional connection between consumers and particular prints, while also expanding the communicative possibilities of graphic design in fashion. The findings may be utilised by designers, brands, and cultural institutions in the creation of patterns that take into account cultural specificity and communicative effectiveness within the fashion environment

Keywords: design semiotics; prints; ornament; cultural code; visual communication; fashion design

INTRODUCTION

The fashion industry, as a sphere of visual communication, employs graphic symbols that require accurate and precise interpretation. In this context, knowledge of cultural specificities is essential when creating a “harmonious” pattern, with the avoidance of ambiguity representing a key objective. The issue of graphic patterns and prints in contemporary design

and the fashion industry has attracted the attention of a number of Ukrainian researchers, who have examined both the theoretical and practical aspects of their application. A. Osadcha (2025) systematised the experience of using traditional Ukrainian symbols in contemporary design, particularly in fields such as graphic design, branding, fashion, architecture and digital art. The main findings of the study confirmed that Ukrainian symbolism, particularly ornaments,

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colours and imagery, has been actively integrated into various fields of contemporary design. It was also established that the contemporary interpretation of national symbols has contributed to the formation of a positive image of Ukraine as a culturally rich nation, whilst supporting its cultural identity on the international stage. N. Chuprina & O. Tereshchenko (2024) also investigated the relevance of using Ukrainian folk ornaments in contemporary design, their varieties, and the systematisation of materials used to create textured surfaces and ethnic elements in contemporary clothing.

In their article, S. Borysova & P. Kiichenko (2023) traced the evolution of graphic design on T-shirts using prints. The authors emphasised that, in the context of globalisation, the print has ceased to be merely a decorative element and has become an important means of individualisation and self-expression. The results of their study demonstrated that prints in the field of mass and youth fashion fulfil not only an aesthetic but also a communicative function, reflecting current socio-cultural trends. The work by K. Pashkevych & C. Liu (2023) examined decorative embellishments in 20th-early 21st-century clothing design with the aim of identifying the artistic techniques used to create them and the innovative technologies involved. One of the key trends of the season was the draping of fabrics that already featured a certain type of embellishment, such as a small print or a gradient effect. This type of embellishment emphasised the role of colour schemes and smooth transitions in ensuring aesthetic harmony and the innovative nature of visual images. The uniqueness of patterns plays a significant role in shaping brand identity and demonstrates that it is precisely individually created patterns that can lend collections originality and recognisability. The study by N. Lee & S. Suh (2024) examines the influence of digital technologies on the formation of contemporary trends in fashion design, particularly on the development of graphic patterns and prints. The authors demonstrated that the use of big data and digital tools enables the creation of designs that reflect current socio-cultural trends and the personalisation of clothing. This confirms the role of patterns not only as a decorative element but also as a communication tool in the contemporary fashion industry.

A significant contribution to the study of visual culture was made in E. Thiriet (2024), which examined artistic practices through the prism of the contemporary cultural space, emphasising the role of visual codes in social communication. A separate section was devoted to the study of the cognitive and psychological mechanisms of pattern perception. The works of S. Stanischewski *et al.* (2020) and J. Friedenberg (2022) demonstrated that the rhythm, symmetry and orderliness of patterns directly influence emotional perception, provide aesthetic value and create a sense of harmony. The study by S.R. Rech *et al.* (2026) analysed how cultural and territorial heritage can shape graphic patterns in

contemporary textile and fashion design. The authors demonstrated that the integration of local symbols, ornaments and colour schemes into prints not only emphasises aesthetic harmony but also helps to strengthen the cultural identity of brands. These findings highlighted the significance of patterns as a means of communicating cultural values within the context of intercultural interaction in the fashion industry.

An analysis of academic publications revealed a diversity of approaches to this issue – ranging from ethnocultural and art-historical to cognitive-psychological. However, despite the broad coverage of related aspects, the question of how patterns function as a systemic element of brand identity in the context of intercultural communication in the fashion industry remains overlooked by researchers. The aim of the study was to determine the communicative and cultural potential of graphic patterns as a tool for intercultural interaction in the contemporary fashion industry, as well as to identify the mechanisms through which they influence consumers' emotional and sociocultural perceptions.

MATERIALS AND METHODS

The study employed an interdisciplinary approach drawing on a range of scientific research methods. This facilitated a comprehensive examination of the cultural and communicative potential of graphic patterns in the fashion industry. In particular, methods of visual, semiotic, cultural, art-historical and comparative analysis were employed, alongside a cognitive-psychological approach. Using visual analysis, the structure of the composition and scale of the patterns, their forms, and colour schemes were examined in detail using examples from contemporary collections by leading brands (Fendi, Etro, Hermès, Dolce & Gabbana, Versace, Diyanu, Anita Dongre). This method was used to assess how decorative elements are organised within the composition, and which principles of repetition, rhythm and balance are employed to enhance the emotional impact on the consumer.

Semiotic analysis was applied to decode the symbolic meaning of graphic elements, as the interpretation of geometric and botanical patterns varies significantly depending on the socio-cultural context – and it is precisely this method that allows to uncover deep-seated cultural codes that are inaccessible through a purely formal description. This made it possible to uncover the deep-seated cultural codes embedded in the symbolism of the visual elements. Cultural and art historical analyses have outlined an understanding of the historical and cultural components of ornaments, revealing their origins in folk decorative and applied arts and in the traditions of various countries and regions, such as South Asia, Africa, Ukraine and others. The analyses conducted helped to trace the transformation of traditional elements into contemporary design trends. Through comparative analysis, conclusions were drawn regarding intercultural communication via graphic

elements. This became apparent when comparing patterns from different cultures and brands, as well as the specific ways in which they are used in contemporary fashion design. A cognitive-psychological approach was applied to elucidate the neuroaesthetic mechanisms of pattern perception: drawing on data from the psychology of perception and neuroaesthetics, this approach enabled to substantiate how compositional techniques (repetition, rhythm and balance) and colour choices shape the consumer's emotional responses.

The study utilised methodologies from leading authors in this field, specifically the principles of compositional repetition, rhythm and balance as outlined in the research by S. Stanischewski *et al.* (2020) and J. Friedenberga (2022). To substantiate the neuroaesthetic aspects, materials from specialised resources were drawn upon, notably Research Design Connections (n.d.). The research was conducted in several consecutive stages. Initially, visual information was selected from the collections of well-known global brands, as well as samples of traditional ornamentation. During the second stage, forms, symbolism and colour schemes were systematised using visual and semiotic analyses. In the third stage of the study, the identified patterns were compared across different cultures and brands, taking into account principles of composition. Finally, the functional and communicative aspects of the patterns were outlined using the data obtained in conjunction with cognitive-psychological theories of perception. The analysis of the works was carried out according to the following criteria: pattern type (floral, geometric), scale (small-scale, medium-scale, large-scale), colour palette (warm, cool, contrasting shades), compositional principles of organisation (repetition, rhythm, balance), cultural context and symbolic meaning. The influence of pattern composition on emotional perception and communicative effectiveness within the framework of brand identity was also assessed.

RESULTS AND DISCUSSION

Graphic design plays a decisive role in shaping the mechanisms of fashion perception and the nature of the consumer's interaction with it. Clothing functions as a non-verbal means of communication, conveying information about the wearer's social status, personal identity and cultural affiliation. The integration of graphic patterns into the structure of clothing enhances this communicative function, transforming the garment into a powerful means of self-expression and targeted influence on the intended audience. They can also create a sense of integrity and coherence, as well as enhance the emotional perception of the composition and explain social and cultural contexts. The principles underlying pattern design originate from the fundamental concepts of graphic design, which are widely applied by designers to create coherent and expressive compositions (Sung, 2024). A visual pattern is understood as a structural element that, through the

systematic repetition of forms, lines, or colour rhythms, establishes the organic unity of a visual image.

The phenomenon of semantic ambiguity in the context of graphic patterns manifests itself in the contradictory or ambiguous interpretation of visual elements depending on the recipient's cultural environment. In particular, a pattern that symbolises harmony and stability within the Western tradition may acquire a sacred or fundamentally different meaning in Eastern cultures. Similarly, colour ambiguity arises when colour choices are made without taking into account cultural semantics or psychological mechanisms of perception, leading to unwanted connotations and reducing the pattern's communicative effectiveness. It is precisely the avoidance of ambiguity that prevents the emergence of irrelevant associations and intercultural conflicts. This allows a brand not only to strengthen its own identity but also to foster a positive social dialogue, where graphic design serves as a precise yet sensitive tool of communication. Culture and communication are interdependent systems that mutually define one another. Taking into account the cultural characteristics of the target audience, its values, norms and symbolic conventions is a prerequisite for developing effective visual communication design (Fig. 1). Consequently, pre-project analysis of the socio-cultural context should be viewed not as an optional stage, but as a methodological requirement for any design decision in the fashion industry.

Some forms have a universal meaning, yet from the perspective of cultural influences, they can give rise to different interpretations. Patterns used in textile and fashion design can be classified into various categories, including botanical, geometric, and so on. In graphic design practice, plant-inspired motifs are regarded as a structural element of composition, setting the rhythm, harmony and emotional tone of the visual message. Indeed, a study of contemporary approaches to the use of botanical illustration by M. Tkachenko (2025) demonstrated that botanical motifs are used by designers as an effective means of shaping composition and conveying the content of a visual work. They are actively used in the creation of patterns, as their diverse forms and adaptability ensure that the images are easily interpreted. Patterns became particularly widespread in South Asian culture (Fig. 2a), where their development was significantly influenced by the natural environment, and floral motifs (Fig. 2b) subsequently became key elements that shaped the evolution of the visual language of clothing. Leaves in a graphic composition can take on various forms and, depending on this, be interpreted in different ways (Hiliazova, 2025). For example, elongated and straight leaves create a sense of dynamism and directionality, curly or curved ones establish a decorative rhythm, whilst rounded ones emphasise softness and harmony. Floral elements enhance the emotional impact of the composition, creating expressive accents and emphasising the symbolism of beauty, renewal or the

cyclical nature of life. In graphic design, plant patterns have universal application. They can form a cohesive composition as a dominant element or serve as a general background that balances and subordinates

other visual elements. Their rhythmic repetition allows for a sense of order, whilst the variability of forms creates the necessary dynamism.

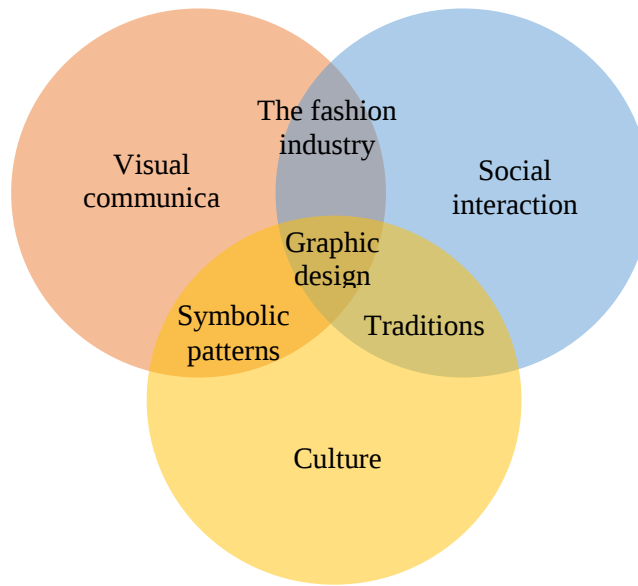


Figure 1. Graphic design in the fashion and culture industry

Source: compiled by the authors



Figure 2. Floral patterns in traditional and contemporary fashion design

Note: a – Dress (robe à l'anglaise), printed cotton skirt, c. 1770-1790; Wesserling Textile Museum; b – example from a contemporary collection by the clothing brand Anita Dongre, India

Source: The Soane Journal (2025), Anita Dongre (n.d.)

The scientific and theoretical perspective views the geometric pattern as an expression of a universal semiotic language, as its structure appeals to the deep psychophysiological mechanisms of visual perception. The foundation of these motifs lies in such geometric shapes as triangles, squares, and circles. At the same time, the same form can be interpreted differently across cultures. In Western traditions, the triangle is often associated with a symbol of spiritual unity and

harmony, thus lending it a sacred meaning (Castro García, 2015). In Eastern cultures, it reflects the harmony of energies or the feminine-masculine duality. The aspect of orientation must also be taken into account. An upward-pointing triangle creates a sense of strength, stability and elevation. In patterns, it is often used to emphasise masculinity, being associated with dynamism and activity. When analysing women's clothing collections, such a motif can be interpreted as

a metaphor for independence and inner strength. A downward-pointing triangle, on the other hand, symbolises softness, fertility and feminine energy. Thus, compositionally, it creates an impression of fluidity and a connection to the earth, which blends organically with themes of femininity and naturalness in contemporary design. The circle largely represents the idea of unity and infinity, but in some cultures it takes on the meaning of cosmic wholeness, whilst in others it symbolises earthly cycles and the passage of time. For example, in Indonesian tradition, the circle symbolises the harmony of the cosmos and the cyclical nature of life (Jamaludin *et al.*, 2024), whereas in Islamic artistic practice it emphasises the spiritual order and infinity of God (Shaw, 2022), demonstrating the difference in cultural interpretations of the same form. The square serves as a marker of stability, order and structure, and in fashion design is used to create a clear organisation of the surface and to emphasise the geometric rigour of the silhouette. From a graphic design perspective, geometric patterns manifest in various formats: from textural patterns (vertical, horizontal, diagonal) and compositions on everyday shirts to complex modular solutions that shape the visual dynamics of contemporary collections. Patterns featuring triangular motifs emphasise energy and movement, whilst circular or wavy elements create a softer, more harmonious atmosphere.

By working with traditional motifs when designing a pattern, the designer is effectively encoding cultural information visually. Many examples combine the divine and earthly worlds and have deep religious or spiritual connotations. Such patterns stem from cultural traditions and may incorporate symbols passed down from generation to generation. This approach varies from culture to culture. For example, patterns from Asian countries predominantly use plant and organic forms, reflecting humanity's close connection with nature. Patterns featuring leaves, flowers and grapevines symbolise fertility, the continuity of life and harmony with the environment. In fashion design, these are realised through flowing lines and rhythmic repetitions that create the illusion of continuity.

Western Europe is characterised by geometric and heraldic motifs, which have their roots in medieval symbolism. The symmetry, rhythm and balance of these patterns create a sense of order and authority. It is worth noting that in contemporary graphic design, they are often used to create understated yet prestigious designs. Vibrant geometric patterns with contrasting colours are very common in African cultures, symbolising the energy of the community, ritual practices and spiritual unity (Fig. 3). Such an approach is regarded as a powerful visual tool due to its large-scale forms and vibrant colour palette.

In Ukraine, patterns are closely associated with folk decorative arts, including embroidery, pysanka decoration, and weaving. Geometric forms such as the rhombus, cross, and square carry protective

symbolism, while floral motifs reflect ideas of fertility, beauty, and spiritual renewal. In this way, they serve as distinctive markers of national identity, combining both local and global dimensions. Table 1 presents the symbolic meanings and psychological perceptions of geometric forms in patterns.



Figure 3. African pattern featuring geometric motifs
Source: Diyanu (n.d.)

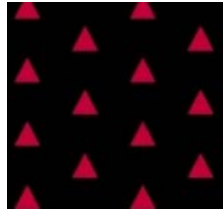
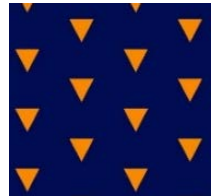
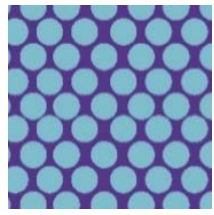
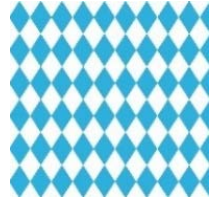
Repetition, rhythm and balance are fundamental, as they determine the structure and perception of patterns. Within the context of the fashion industry, these principles acquire particular significance, as they influence not only the aesthetic appeal of a garment but also its communicative role as a whole. The findings of E. Wassiliwizky & W. Menninghaus (2021) confirmed and expanded upon the conclusions of this study: compositional principles, colour schemes and ornamental structures not only ensure the aesthetic appeal of a pattern but also trigger cognitive responses mediated by the interplay of cultural and social meanings. Building on the authors' proposed integration of a cognitive perspective into the analysis of aesthetic experience, this study argues that an interdisciplinary approach is not only desirable but also methodologically necessary for the development of communicatively effective design solutions in contemporary fashion. The generalised characteristics of these identified principles are described in Table 2.

Thus, repetition, rhythm and balance, when combined harmoniously, form a powerful tool for establishing an emotional connection between a design and a potential consumer, opening up opportunities for graphic design in cross-cultural interaction through the fashion industry. Previous research has shown that non-verbal communication in the form of images is perceived and interpreted by humans more quickly and effectively than verbal communication (Stanischewski *et al.*, 2020). The human brain's connection to patterns is both complex and instinctive, as they influence the wearer's emotional state, the way they are socially

perceived, and even the cognitive processes that regulate attention and memory. In particular, the brain

processes organic, flowing patterns differently from geometric and clearly structured forms.

Table 1. Symbolism and use of geometric forms in patterns

No.	Shape	Symbolic meaning	Psychological perception	Illustrative example
1	Triangle (pointing upwards)	Strength, elevation, and spiritual unity; in Eastern cultures, it is interpreted as the harmony of energies.	Dynamism, independence	
2	Triangle (pointing downwards)	Fertility, femininity, connection to the earth	Smoothness, calmness, naturalness	
3	Square	Stability, order, structure, protection	Harmony, continuity, softness	
4	Circle	Unity, infinity, cosmic wholeness	Rationality, reliability, restraint	
5	Diamond	A symbol of fertility and growth; a protective talisman (particularly in Ukrainian culture)	Dynamism within symmetry, a sense of growth	

Source: compiled by the authors

Table 2. Compositional principles in the construction of graphic patterns

No.	Principle	Graphic means	Functionality	Manifestation in fashion
1	Repetition	Lines, stripes, dots, logo modules, tile grids, seamless patterns.	Creates a sense of order, stability and predictability.	They serve as a means of brand identity; striped lines in business suits; the repetition of logos in luxury brands.
2	Balance	Asymmetry, symmetry, colour contrasts and harmonious forms.	Ensures harmony and balance within the pattern's structure when viewing the composition.	Balancing large elements against a neutral background; asymmetrical geometries in contemporary collections for a dynamic look.
3	Rhythm	Various intervals, progressions, undulating or alternating structures achieved by varying the scale of the pattern.	Organises the visual flow of elements and directs the viewer's attention.	Wavy motifs and large-scale rhythmic patterns in contemporary streetwear collections.

Source: compiled by the authors

Patterns play an important role in structuring visual experience, as the repetition and rhythm of forms

contribute to a sense of order and the integrity of perception (Research Design Connections, 2022). Thus,

the repetition and rhythm of graphic forms not only organise visual space but also evoke a sense of stability and order in the viewer. It has been emphasised that patterns have the power to stimulate emotions and influence cognitive abilities, as humans are inclined to seek patterns in their surroundings. This means that patterns integrated into fashion garments are capable of forming positive associations, a sense of harmony or, conversely, tension in the viewer's mind – depending on the compositional structure and choice of colour palette.

The neurological basis of psychological influence mechanisms explains the ability of different types of patterns to trigger distinct emotional responses in the fashion industry. Firstly, patterns affect mood through the level of visual stimulation: designs characterised by visual balance, rhythm, harmony, and related attributes are generally evaluated more positively than designs lacking these qualities. Secondly, they evoke emotional responses through associations with personal memory. A person's personal experiences and memories play a significant role in forming an emotional connection with textiles. Thirdly, the same pattern in different colours creates significantly different psychological effects, demonstrating its role as a powerful modifier in perception. Thus, colours can enhance or balance the visual characteristics inherent in a pattern (Jeon *et al.*, 2020). Warm colours (red, orange) enhance its dynamism and stimulating potential. In contrast, cool colours (blue, green) create a sense of unity and coherence, associated with harmony, naturalness and environmental friendliness. Complementary colour combinations (for example, blue and orange, red and green) are used in the fashion industry as a strategic communication tool, reinforcing brand identity and defining its stylistic uniqueness. Contrasting colour schemes are widely used in patterns as a means of attracting attention and stimulating an emotional response, as colour itself carries powerful cultural significance and is capable of evoking a wide range of associations and symbolic meanings. At the same time,

research into colour harmony by U.K. Dogar *et al.* (2024) showed that the highest levels of aesthetic harmony are demonstrated by combinations of colours with similar hues or saturation and moderate differences in brightness. In contrast, colour pairs with sharp variations in brightness receive significantly lower harmony ratings, indicating the need for a nuanced approach to contrast: its use is justified as a communicative technique, but requires consideration of the psychophysiological limits of perception. In addition to type and colour, the scale of the pattern also significantly influences its psychological impact and reflects the stylistic strategies of specific brands (Table 3).

The example of the Fendi brand illustrates small-scale patterns based on the rhythmic repetition of logo elements, creating the effect of a structured surface and rhythmic order. Such compositions give the consumer a sense of visual stability and a sense that the composition is complete (Fig. 4).



Figure 4. Jacket featuring the FF logo pattern, Fendi
Source: Fendi (n.d.)

Table 3. Classification of patterns by scale and their visual characteristics

No.	Pattern type	Key visual characteristics	Psychological impact	Communicative and social role	Brand examples
1	Small-scale patterns	The composition consists of repeating elements; the use of clear geometric or small decorative forms; a high level of detail.	Convey a sense of precision and attention to detail; create a formal and structured overall impression.	They are perceived as conservative and more traditional, emphasising restraint and discipline.	Burberry, Etro.
2	Medium-scale patterns	A combination of rhythm and balance in the medium-sized elements; a balance between detail and generalised forms.	Evoke a sense of psychological comfort and harmony; ensure clear image recognition without excessive visual clutter.	A blend of traditional cultural symbols and contemporary aesthetic trends.	Hermès, Versace.
3	Large-scale patterns	Dominant forms and striking colour accents; large-scale geometric or organic elements.	Create a powerful emotional impact; used to emphasise the brand's boldness.	A defining feature is their ability to evoke an emotional response and capture attention; they are associated with confidence.	Dolce & Gabbana, Alexander McQueen.

Source: created by the authors

Etro makes extensive use of floral motifs, combining intricate detail with simplified forms, which creates a sense of harmony and sustainability (Fig. 5a). In the case of Hermès, a graphic design of intertwined cords and metal rings creates visual unity and emphasises the structural organisation of the fabric's surface (Fig. 5b).



a



b

Figure 5. Medium-scale patterns in contemporary branded fashion design

Note: a – Jacket featuring a floral motif, Etro; b – “Palefroi Remix” print, Hermès

Source: Etro (n.d.), Hermès (n.d.)



a



b

Figure 6. Large-scale patterns as a means of visual dominance in fashion

Note: a – Cotton shirt dress featuring a peony floral print, Dolce & Gabbana; b – Silk shirt with the “Barocco” print, Versace

Source: Dolce & Gabbana (n.d.), Versace (n.d.)

Thus, the scale of a pattern serves not only as a formal and compositional feature, but also as an important communicative tool that defines the nature of a brand's visual message, enhances its emotional expressiveness, and shapes its cultural and aesthetic identity within the fashion sphere. A comparison of the

results obtained with the findings of R. Rafiyev *et al.* (2024) revealed a common trend: in the context of digitalisation and the spread of minimalism, geometric patterns with clear lines demonstrate greater adaptability to the online environment. However, unlike the aforementioned authors, who viewed the

simplification of form as an unambiguously productive strategy, this study found that excessive reduction of visual complexity risks the loss of a brand's semiotic specificity and reduces its recognisability. An important aspect is the integration of traditional ornamentation into contemporary design. Analysis of the results obtained suggests that graphic patterns in the fashion industry function as a complex semiotic system. A comparison of the author's data with the study by Y. Wang (2025) revealed a similarity in views on the combination of digital technologies with traditional visual codes. This approach demonstrated how graphic patterns serve as a link between the past and the future, adding a contemporary touch to clothing design whilst preserving authenticity. This aligns with the author's conclusions that contemporary patterns serve not only to decorate garments but also act as intermediaries between global technologies and local identity.

Similar conclusions were reached by S. Ugale & N. Thakur (2021), who analysed how Indian culture influences contemporary design objects through colours, materials, and finishes, known as CMF design. The present study expands upon this concept by demonstrating that graphic patterns can be an even more flexible design tool than the material itself. It was found that ornamental motifs within patterns are more easily adapted to the global market than traditional materials. This can be explained by the fact that graphic design allows the recognisability of tradition to be preserved without compromising the ergonomics of contemporary clothing. The cultural approach likewise confirmed the importance of considering local traditions when developing graphic patterns for the global fashion industry.

The relationship between the psychological impact on consumers and their perception of contemporary patterns on different fabrics was investigated by T. Naveed *et al.* (2024). The author demonstrated the significance of dynamic visual elements in contemporary fashion design and confirmed that motion-style graphic patterns possess greater aesthetic appeal. At the same time, the type of fabric, which significantly influences the perception of graphics, was investigated. Silk materials received more positive feedback than polyester ones. A. Sharma (2023) highlighted the psychological aspects of the influence of colour and form on brand perception, noting that carefully designed graphic patterns are capable of forming emotional connections with the consumer, thereby influencing brand loyalty and recognition. The authors' data confirmed that certain rhythmic patterns can evoke trust, a sense of harmony and security. Minor discrepancies in the results were observed when compared with the findings of A. Sharma, who focuses significantly on sustainability as a fundamental driver of change in design. Although the current study does not deny the importance of the environmental factor, it has been established that, for consumers, the cultural value and visual appearance of a pattern are often prioritised over its environmental origins. Thus, the

effectiveness of visual code communication sometimes conflicts with ethical principles of consumption. This creates scope for further research and discussion.

Environmental issues in fashion design remain a subject of debate, a topic also addressed by U.K. Dogar *et al.* (2024). Based on the results of their study, it was concluded that form and colour play an important role in promoting sustainable fashion and the use of eco-friendly graphic design. The present study confirmed the assertion that the use of plant textures and floral motifs visually associates a brand with sustainability even before consumers read the material composition. However, a certain critical threshold was identified. U.K. Dogar *et al.* considered any eco-design to be unquestionably positive, but it was established that the excessive use of natural motifs can lead consumers to suspect marketing manipulation, so-called "greenwashing", if the brand is not supported by a genuine sustainable sustainability strategy.

A comparative analysis has shown that graphic patterns in the contemporary fashion environment are a multifunctional phenomenon that maintains a balance between technological innovations, psychological mechanisms of perception, cultural specificity and the requirements of sustainable development. This study expands the existing academic discourse, arguing that the communicative potential of patterns in the contemporary fashion industry is realised through a productive combination of digital technologies and cultural authenticity – and it is precisely this interaction that determines the pattern's ability to serve as an effective mediator between global trends and local identity.

CONCLUSIONS

The study confirmed that graphic patterns in the fashion industry function as a complex semiotic system that goes beyond a purely decorative role: they are a fully-fledged tool of visual communication, capable of conveying cultural codes, value systems and elements of brand identity. It has been established that the communicative potential of a pattern is realised through the interaction of three determining factors – semiotic structure, psychological mechanisms of perception and the cultural context of the audience. It has been demonstrated that the interpretation of forms, ornamental motifs and colour combinations varies significantly depending on the recipient's cultural environment, and ignoring this factor inevitably leads to semantic ambiguity and a reduction in the effectiveness of the visual message. These conditions have made it necessary for graphic designers to take into account the social and cultural characteristics of the target audience.

The study systematises the main compositional principles of graphic pattern structure (repetition, rhythm and balance) and substantiates their influence on consumers' emotional and psychological perception. It has been found that plant motifs provide organic harmony and emotional warmth to the visual image,

whilst geometric patterns evoke a sense of order, stability and strength, which testifies to their pronounced semiotic potential. An analysis of compositional solutions demonstrated that scaling is an important communicative tool that determines the nature of a brand's visual message and its positioning. Thus, small-scale compositions (using Fendi as an example) were analysed, conveying ideas of restraint and structure; medium-scale patterns (Etro, Hermès) – an optimal balance between detail and visual harmony; and large-scale motifs (Dolce & Gabbana, Versace), which evoke intense emotional responses and emphasise the uniqueness of the design style. Prospects for further research lie in studying the impact of design digitalisation on traditional

ornamental structures. Another important area is the analysis of how modern technologies are changing the semiotics of patterns and whether algorithmically generated prints are capable of preserving the deep cultural codes identified in this study.

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REFERENCES

- [1] Anita Dongre. (n.d.). *Official website*. Retrieved from <https://anitadongre.com/>.
- [2] Borysova, S., & Kiichenko, P. (2023). Graphic design of T-shirts using prints: Formation and development. *Current Issues in the Humanities*, 61(1), 64-70. doi: 10.24919/2308-4863/61-1-11.
- [3] Castro García, Ó. (2015). *The cultural experience of the sacred through geometry (from the dawn of humanity up to pythagoras' arithmosophy)*. *Pensamiento. Revista De Investigación E Información Filosófica*, 63(238), 743-775.
- [4] Chuprina, N., & Tereshchenko, O. (2024). Ornaments in modern ethno-design: Application development and feasibility. *Current Issues in the Humanities*, 75(3), 111-120. doi: 10.24919/2308-4863/75-3-16.
- [5] Diyanu. (n.d.). Mazi men's African print button-up shirt teal maroon multipattern. *Diyanu*. Retrieved from <https://www.diyanu.com/products/mazi-mens-african-print-button-up-shirt-teal-maroon-multipattern-1>.
- [6] Dogar, U.K., Irfan, M., Mashooq, N., & Durrani, A.H. (2024). How shapes and colors drive sustainable fashion and eco-friendly graphic design. *Journal of Policy Research*, 10(2), 165-173. doi: 10.61506/02.00219.
- [7] Dolce & Gabbana. (n.d.). *Official website*. Retrieved from <https://www.dolcegabbana.com/>.
- [8] Etro. (n.d.). *Official website*. Retrieved from <https://www.etro.com/row-en/>.
- [9] Fendi. (n.d.). *Official website*. Retrieved from <https://www.fendi.com/>.
- [10] Friedenbergl, J. (2022). What makes textures beautiful? Effects of shared orientation. *Psychology of Aesthetics, Creativity, and the Arts*, 16(2), 361-369. doi: 10.1037/aca0000349.
- [11] Hermès. (n.d.). *Official website*. Retrieved from <https://www.hermes.com/>.
- [12] Hiliazova, H. (2025). Natural forms in graphic design objects: Methods of creation. *Ukrainian Art Discourse*, 6, 35-40. doi: 10.32782/uad.2024.6.4.
- [13] Jamaludin, J., Subkiman, A., & Widia, E. (2024). The meaning of symbolic aesthetic of basic shapes in sundanese culture. *Mudra Jurnal Seni Budaya*, 39(1), 69-75. doi: 10.31091/mudra.v39i1.2505.
- [14] Jeon, E., Han, Y., & Nam, M. (2020). How you see yourself influences your color preference: Effects of self-construal on evaluations of color combinations. *Psychology & Marketing*, 37(7), 980-994. doi: 10.1002/mar.21348.
- [15] Lee, N., & Suh, S. (2024). How does digital technology inspire global fashion design trends? *Big Data analysis on design elements. Applied Sciences*, 14(13), article number 5693. doi: 10.3390/app14135693.
- [16] Naveed, T., Batool, S., Ilyas, R., Afraz, N., Sahar, U., Shahid, A., & Awais, M. (2024). Aesthetic relationship between personality emotions and contemporary graphic design patterns on the surfaces of textiles. *Mehran University Research Journal of Engineering and Technology*, 43(2), 143-156. doi: 10.22581/MUET1982.3067.
- [17] Osadcha, A. (2025). Ukrainian symbolism in design. *South Ukrainian Art Studies*, 3, 161-167. doi: 10.24195/artstudies.2025-3.21.
- [18] Pashkevych, K., & Liu, C. (2023). *Decorative embellishment in clothing design of the 20th-21st centuries*. Kyiv: Kyiv National University of Technologies and Design.
- [19] Rafiyev, R., Novruzova, M., Aghamaliyeva, Y., & Salehzadeh, G. (2024). Contemporary trends in graphic design. *Scientific Collection «InterConf+»*, 43(193), 570-574. doi: 10.51582/interconf.19-20.03.2024.055.
- [20] Rech, S.R., Bairros, A.d.S., & Dal Forno, A.J. (2026). From geodiversity to garments: Methods for territory-informed textile prints and fashion. *Textiles*, 6(1), article number 1. doi: 10.3390/textiles6010001.
- [21] Research Design Connections. (2022). *Visual patterns: Neuroscience implications*. Retrieved from <https://researchdesignconnections.com/pub/visual-patterns-neuroscience-implications>.
- [22] Research Design Connections. (n.d.). *Articles by issue: Issue 1942*. Retrieved from https://researchdesignconnections.com/articles-by-issue?field_issue_target_id%5B%5D=1942.
- [23] Sharma, A. (2023). Psychological aspects of fashion brands. *International Journal for Multidisciplinary Research*, 5(6), 1-13. doi: 10.36948/IJFMR.2023.V05I06.9236.

- [24] Shaw, W.M.K. (2022). Islamic geometries: Spiritual affects against a secularist grid. *Sophia*, 61, 41-59. doi: [10.1007/s11841-022-00905-4](https://doi.org/10.1007/s11841-022-00905-4).
- [25] Stanischewski, S., Altmann, C.S., Brachmann, A., & Redies, C. (2020). Aesthetic perception of line patterns: Effect of edge-orientation entropy and curvilinear shape. *i-Perception*, 11(5), article number 204166952095074. doi: [10.1177/2041669520950749](https://doi.org/10.1177/2041669520950749).
- [26] Sung, K.S. (2024). The aesthetic characteristics of repetition in fashion. *Journal of the Korean Society of Costume*, 74(2), 156-176. doi: [10.7233/jksc.2024.74.2.156](https://doi.org/10.7233/jksc.2024.74.2.156).
- [27] The Soane Journal. (2025). *Soane's Mulhouse Pattern Books: Industry & Inspiration*. Retrieved from <https://www.soane.co.uk/journal/soanes-mulhouse-pattern-books-industry-and-inspiration/>.
- [28] Thiriet, E. (2024). *Alexis L. Boylan, visual culture*. Cambridge: MIT Press. doi: [10.4000/critiquedart.105218](https://doi.org/10.4000/critiquedart.105218).
- [29] Tkachenko, M. (2025). Modern approaches to the use of botanical illustration in graphic design. *Demiurge Ideas Technologies Perspectives of Design*, 8(2), 259-274. doi: [10.31866/2617-7951.8.2.2025.347430](https://doi.org/10.31866/2617-7951.8.2.2025.347430).
- [30] Ugale, S., & Thakur, N. (2021). Impact of Indian culture-oriented Color, Material, and Finish (CMF) design on contemporary products. In *Design for tomorrow – volume 1, smart innovation, systems and technologies* (pp. 450-462). Singapore: Springer. doi: [10.1007/978-981-16-0041-8_47](https://doi.org/10.1007/978-981-16-0041-8_47).
- [31] Versace. (n.d.). *Official website*. Retrieved from <https://www.versace.com/>.
- [32] Wang, Y. (2025). An exploratory analysis of integrating digital printing with traditional weaving patterns for creative cultural tourism products. *Textile & Leather Review*, 8, 782-799. doi: [10.31881/TLR.2025.782](https://doi.org/10.31881/TLR.2025.782).
- [33] Wassiliwizky, E., & Menninghaus, W. (2021). Why and how should cognitive science care about aesthetics? *Trends in Cognitive Sciences*, 25(6), 437-449. doi: [10.1016/j.tics.2021.03.008](https://doi.org/10.1016/j.tics.2021.03.008).

Комунікаційний та культурний потенціал графічних патернів в індустрії моди

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Анотація. Мета дослідження полягала у виявленні комунікаційного та культурного потенціалів графічних патернів, враховуючи вимоги сучасної модної індустрії та механізми їх впливу на споживача. Робота побудована на застосуванні комплексного міждисциплінарного підходу, що включив методи візуального та семіотичного аналізу, елементи культурологічного та мистецтвознавчого дослідження, а також порівняльний аналіз зразків сучасного фешн-дизайну. У дослідженні було проаналізовано ключові типи графічних патернів з різноманітних культурних контекстів, що використовуються в індустрії моди: рослинні, геометричні та орнаментальні мотиви. Встановлено, що патерни, які містять флористичні та листяні елементи, виконують функцію утворення гармонії та ритму, а також емоційного забарвлення візуального образу. Універсальними семіотичними формами виступили патерни геометричних фігур та ліній, які виступають різними символами стабільності, сили та духовної цілісності в залежності від орієнтації та культурного контексту. Також виявлено, що важливу роль відіграє масштаб патернів та їх колірна різноманітність. Так, наприклад, дрібномасштабні композиції (Fendi) створюють відчуття стриманості та певної структури, середньомасштабні (Etro, Hermès) патерни забезпечують баланс між гармонією та деталізацією, а великомасштабні (Dolce & Gabbana, Versace) підсилюють емоційність і підкреслюють унікальний стиль бренду. Не менш важливий вплив на емоційне та психологічне сприйняття показують рішення кольорової гами. Проведений аналіз композиційних принципів повтору, ритму та балансу продемонстрував, що вони сприяють більш емоційному зв'язку споживача із певними принтами, а також розширюють комунікативні можливості графічного дизайну в моді. Результати можуть бути використані дизайнерами, брендами та культурними інституціями для створення патернів, що враховують культурну специфіку та комунікативну ефективність у модному середовищі

Ключові слова: семіотика дизайну; принти; орнамент; культурний код; візуальна комунікація; фешн-дизайн