

Платформа 3
**Інформаційні технології та інновації в текстильній та
фешн-індустріях**

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**TRADITIONAL CHINESE TEXTILE PATTERN:
HISTORICAL SIGNIFICANCE AND MODERN
DIGITAL REDESIGN TECHNIQUES**

Purpose. *The study sets out to explore the application of compositional strategies and digital intervention in reconsideration technique in the revitalization of traditional Chinese textile motifs. The role of this research is to reconnect the historical value attached to these patterns, with the global design outlooks by translating and developing those patterns into a more relevant manner.*

Keywords: *Traditional Chinese textile patterns, digital redesign, cultural heritage preservation, contemporary design, aesthetic evaluation*

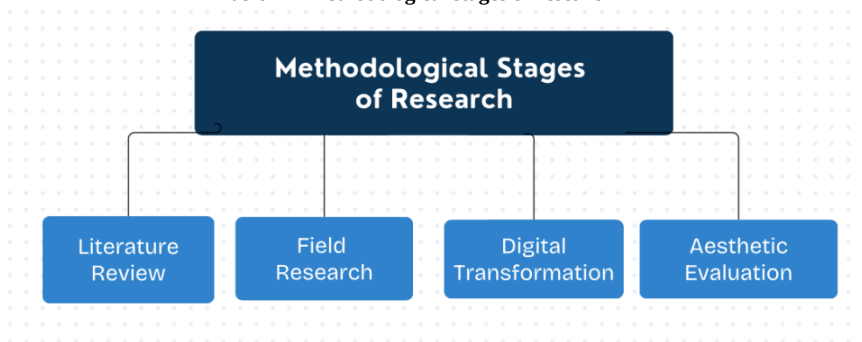
Objectives. Using methods to fidelity to history and culture, this research seeks to identify the rich historical and cultural significance and exquisite organization principles of traditional Chinese textile patterns created in ancient Han and Tang dynasties. It aims to organize these patterns in order to create a complete taxonomy which can be used for studying the same and applying them in modern way. In other words, the study also has to rationalize why specific patterns have been selected for redesign [1] and analyse their affiliation with conventional aesthetics along with contemporary design principles. Finally, it addresses which technologies and methods are required for the digital re-design process to successfully retain the cultural and aesthetic integrity of the patterns [5]. It also shows the potential ways to use digitized patterns in different, modern design areas (e.g., graphic design, packaging and multimedia), thus emphasizing their communicative value as tradition-modernity connectors [1-2].

Methodology. This research uses systematic, interdisciplinary methods that cross historical, comparative and digital analysis.

Key methods include:

1. By reflecting on previously published research, this literature review outlines the state of current scholarship around traditional Chinese textiles, digitization methodologies and cultural heritage preservation.
2. Field Research of Locating and studying traditional textile samples, found in museums, private collections, and digital archives.
3. Digital Transformation with Refreshing traditional patterns using digital scanning, vectorization, and CAD technologies.
4. Aesthetic Evaluation with using qualitative analysis and expert reviews to assess the cultural authenticity and visual presentation of modified patterns [4] (Table 1).

Table 1 - Methodological stages of research



Research results. The findings interpret that the traditional Chinese textile patterns contain many meanings and cultural significance, and they can be seen as a mirror of historical contexts. Including a variety of symbolic elements and artistic principles drawn from the Han and Tang dynasties, these patterns represent the values and aesthetics of their era. Their incorporation with modern digital tools ensures that these patterns are retained and adaptable within contemporary design briefs [1-3]. The use of digital scanning, vectorization, and CAD technologies allows for the refreshing and recreating of traditional designs while maintaining their cultural authenticity.

Firstly, Digital scanning refers to the capture of high-resolution images of historical textiles patterns in order to maintain details and textures thereby establishing digital archive for design work. This way even small quirks of the original patterns are correctly documented.

Secondly, with vectorization now it's able to scan pictures and always still transform them into vector graphics, meaning they can be utilized for different kinds of layouts without decline in quality. But it also allows designers to play with the elements of the patterns – they can mess around with the shapes, lines, and colours without turning them into unrecognizable variants of their base designs.

Finally, CAD technologies are used to developing the patent pattern for a new lifestyle thus merging contemporary innovation technics with traditional aesthetics.

This study finds unique challenges and opportunities for organizations as they transition to digital work (Fig. 1), underlining how aesthetic concerns must be carefully balanced to preserve the cultural heritage of the original designs [5]. As these cultures and symbols represent specific ideas, the patterns themselves must be respectful of this cultural specificity. It is, however, allowing for innovation in the way that traditional patterns are being transformed into modern applications using the digital redesign process in design areas within and without all types of traditions.



Fig. 1. **Digital redesigning and innovative Integration of traditional Chinese Textile Patterns elements**

Conclusion. This thesis creates a guideline for the understanding of combined Chinese traditional textile patterns and digital design approaches. In addressing the challenge of preservation versus innovation, the research adds to discussions surrounding cultural heritage and its career in contemporary creative practices.

Specifically, addressing those issues by identifying three main digital redesign methods within the study: digital scanning, vectorization and CAD technologies which facilitate improved reproduction, transformation and innovation for traditional pattern in contemporary context.

These findings reinforce the importance of this research to several design fields & specifically in fashion and textile design, where digital reinterpreted configurations provide a new vision for textiles and clothing that respect classic aesthetics while being able to appeal to today's consumers. This enriches visual communications, branding and packaging in graphic design, by incorporating a deep sense of culture as well as differentiation. In addition, the methodologies can be used for multimedia design, interior decorations and product design, increasing the influence of the traditional patterns of China in the global design industry. The result highlights the value of combining cutting-edge technology with traditional culture to make sure that heritage patterns in fabrications still connect as inspiration and echo within contemporary design.

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