

## References

1. Sustainable Design Institute. (2023). Advances in Eco-Friendly Dyeing Techniques.
2. Noori, M.F. (2024). Shades of Sustainability Abstract.
3. Patagonia Sustainability Report. (2023).
4. Lush Cosmetics Environmental Impact Report. (2023).

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### Research on the application of Pak-China tiles patterns in clothing design (Fashion through Tile Designs)

**Mrs. Fawad, Suwaiba<sup>1</sup>,  
Dr. Sha Sha<sup>2</sup>**

<sup>1</sup>Lecturer at CISD, College of  
international Skills Development  
Lahore, Pakistan,

<sup>2</sup>WTU, Wuhan Textile University,  
Wuhan, China

*Abstract. Ceramics is one of the most ancient industries on the planet. Once humans discover that clay and could be dug up and formed into objects by first mixing with water and then firing. The industry was born. As early as 24,000 BC, animal and human figurines was made from clay and other materials. Chinese tile & ceramic industry has very deep roots & long history along with Pakistani Tiles & Ceramics industry is furthermore, very well known in global market.*

*The Companies & Brands of ceramics & tiles enjoy leading position in the Ceramic Tiles industry in China & in Pakistan, its products are of international quality standards and it believes in constant product development. It offers wide range of sizes, colors, and designs in ceramic tiles and other allied products, conforming to high quality standards of durability and aesthetic values. The various plant, based in Pakistan, incorporates the latest European technologies & techniques to manufacture high gloss tiles that conform to European standards. 1-Famous Chinese tile brands: Dong Peng, Monalisa, Marco Polo, Nabel, Oceano, Jinduo. 2- Famous Pakistani tile brands: Stile tiles, Master tiles, Pak Mughal tiles, Osaka tiles and emirates ceramics.*

*In fashion, industry there is always a space of unique collection. Consumers always looking for new idea for their clothing collection and designers can present that idea to capture the market by launching new concept in fashion clothing. Our concept is also based on above idea and I will design and produce a collection, which is unique and new.*

*After doing in depth research on tiles, ceramic's industry of China & Pakistan, collect the data and come up with new idea by doing content analysis between both countries tile industries took patterns, design inspiration, and then create new design development of fashion R2W S/S 2024 collection. The collection of basic silhouette of trouser, Skirt, Basic T-shirt with creative digital printing and on top double-sided cape, which can be use from both sides in to three, different looks in to one concept. Means one outfit will be use in three different looks by changing tiles design combination to another tile design combination (Fabric tile) which is created by using embroidery, printing and by fabric patchwork techniques in very easy way by using creative attachable and detachable fabric tiles on same silhouette.*

Keywords: tile design, sustainability, fashion, new idea, Pak-China.

## **Introduction**

Mud that has formed and terminated at high temperatures is used to produce tiles, which can be used as a ground surface or as a covering wall. They are known for being durable, easy to clean, and available in a wide range of colors and designs. Ancient civilizations like the Babylonians, Assyrians, and Persians used ceramic tiles to decorate their palaces and buildings. Around 4,000 BC, the earliest known examples of ceramic tiles were discovered in Egypt. Ceramic tiles with intricate mosaic patterns and designs were extensively use in the architecture of the ancient Greeks and Romans. Ceramic tiles gained even more popularity during the Islamic Golden Age when mosques and palaces were decorate with calligraphy and intricate geometric designs. Ceramic tile production spread throughout Europe in the 12th century, with major centers of production in Italy and Spain. In the eighteenth and nineteenth centuries, the Modern Unrest acquired huge progress fired tile creation, considering large-scale manufacturing and unpredictable plans. Ceramic tiles are still widely used for flooring and wall coverings in homes and businesses around the world.

## **Literature Review**

The status of research regarding Chinese and Pakistani tile patterns used in clothing design is multifaceted, governed by both direct and eccentric correlations. Coming from a more direct line of argument, the view that the inclusion of the Chinese tradition of tile patterns into modern fashion design will be a strong revival key for Cultural Heritage, which will also promote innovation in the fashion industry. That becomes the focus of how Pakistani tile patterns, through frameworks of heritage cultural promotion through the line of fashion,

become important, as noted in successful integrations within contemporary designs. The Chinese tile pattern in fashion may contribute to crossing cultural borders in an attempt to fill the Chinese aesthetic with interest worldwide. Pakistani tile motifs can see as a medium for cross-cultural discourses in reflecting the rich artistic traditions of Pakistan. The growing demand for innovative fashion trends with cultural significance is validate by the increased consumer interest in clothing that bears designs are traditionally Chinese. In Pakistan's market, there is an emerging trend, according to the research, where consumers are more inclined to fashion items with traditional patterns that symbolize their cultures. Indirect relationships include those discussed on the development of textile technology that made it possible to replicate complex Chinese tile patterning on fabric, thus making it easier to incorporate the said pattern in fashion. An indirect correlation by discussing the ease of technology in textile printing that brought to life hard-to-execute Pakistani patterning to modern design in apparel. Liu, and different indirect relationship through the idea that traditional Chinese patterns that make use of eco-friendly materials in the process promote sustainable fashion. Validates this by the direct relationship between sustainable fashion practices, including making use of traditional and eco-friendly practices evident in Pakistani craftsmanship. Educational institutions also make a difference; the introduction or re-introduction of the study of traditional patterns among Chinese Universities has created a challenge among new generations to create innovative designs inspired by cultural motives. For Pakistan, where traditional arts and patterning are being integrated into the study of fashion design to provide understanding and application simultaneously on cultural heritage on contemporary fashion. Both of these present the current commonality that has become widely spoken at the domestic and international levels: China with Pakistan, and the mutual focus on the conservation and modernity of culture. In reality, this pursuit of modernizing traditional patterns by keeping their older cultural integrity is pursue by both nations' industrial and commercial design academia. Culturally, this is indeed the case internationally because consumers look more and more for cultural inspiration in their fashion and use new textile technologies to keep traditional cultures moving into the future. Scientific research would therefore include a comprehensive literature review, comparative case analysis, interviews, and questionnaires of designers and customers of fashion; experimental design; data analysis for the synthesis of findings; and provision of actionable recommendations on how to integrate traditional tile patterns into modern fashion.

Direct Correlation in three basic points are Cultural Heritage and Fashion Innovation, Cross-Cultural Exchange and Design Integration & Market Demand and Consumer Trends. If we see Indirect Correlation in three basic points are Textile Technology and Pattern Adaptation, Sustainability in Fashion Design and Educational and Institutional Support.

### **Summary**

The ceramic industries of China and Pakistan have interestingly interwoven histories that have proven the dire need and importance of cultural interexchange and development. The

impact of Chinese ceramics on Pakistani ceramics has even been far-reaching, leading to techniques, motifs, and designs shared by both. However, the two have always retained their individual identities, and despite these influences, gone on to evolve and accommodating new demands of the times. The future, no doubt, looks are good for the ceramics industry in both regions. Further advances of technology and design will only add to their present enhanced status worldwide. First, the overall theoretical nature of the paper remains wanting. While it can be noted, that the main research methods of this article are fieldwork, experimental research, case studies, and synthesis, it is imperative to clarify whether theoretical tools for the observational analysis of the issues being discussed are incorporated. Combining specific theories and running them through relevant research discussions recommended form a relatively scientific rational judgment and reasoning process.

### **Problem Statement**

There are unexplored dimensions to develop unique fashion collection which can be solve the problem of fashion sustainability to reduce over production & wastage in fashion industry by exploring tile design industry of China & Pakistan.

This is a very new and unique idea to create that kind of collection that can be look in to different form one another.

### **Research Objective**

To explore the design patterns on tiles of both countries and develop new design patterns in unique way of presenting both Pak-China tile patterns with creativity and sustainability. The objective of this research is to strengthen the outcomes of sustainability through focusing on an innovative design process called fabric tile designs which can use in 3 different ways to change the look of same outfit. With this use of method to create basic fabric tiles in three different color schemes, which can be, replace by attaching & dethatching on same outfit to change its whole look. It will do with basic square tile with less or no waste of fabric by using same waste fabric of original outfit, which left after cutting patterns. Another core objective is to add the awareness to use unique fashion products for sustainability & Fashionability & Create new dimensions in tile design patterns, which will be use in clothing for the modern world to reduce wastage in the fashion industry.

### **Purpose of the Research**

Fashion is the second most polluted industry after the oil industry. This thesis project aims to create a unique and creative way to develop a fashion collection while exploring the tile design industry of Pakistan & China. The tile industry has its own history within the industry, but collaboration with the fashion industry is a very new and unique way to develop a fashion collection that looks three different ways by changing tiles attaching & detaching on the same outfit silhouette. Another way to change the look of an outfit is by developing a reversible outfit inside out. The whole collection is divided in to design inspiration of tiles below.

Chinese blue and white porcelain tile: The classic blue and white porcelain tiles of China could use to create a variety of unique fashion fabric tiles by using embroidery and printing techniques.

Pakistani geometric tile: The geometric designs of Pakistani tiles could use to create a variety of eye-catching fashion fabric tiles in black and white geometric designs.

Chinese bird tile design & Pakistani floral shape tile: Printed tiles used to create a unique printed fabric tile by combination of that could be use. The fabric would be soft and comfortable to wear, and it would be very durable by using waste fabric.

### **Research Question**

While developing two major questions while conducting this research that the Content analysis in between Pak-China Tile design patterns and What consumer know about fashionability and sustainability through new design & product development.

### **Research Innovation**

This unique & very new concept add the value in fashion sustainability & reduce the overproduction & consumptions also add the fashionability among consumers, along above get the content analysis between design patterns of Pak-China tile industry. The core motivation to conduct this research is to create new innovative way of developing creative collection of fashion. The basic silhouette fashion collection will be show in three different ways. The drawn-out points of this exploration are to distinguish consumer's worth of cash and its requests in quick design utilization and fulfill their requirements with reasonable and remarkable articles of clothing. Besides, it will assist the business to foster attire designs for mass creation with less or no loss to decrease the carbon impression that is made by the material industry. The following are the key points of innovation:

- Using tile design patterns for more than one purpose -Saving more waste in pattern cutting;
- Making basic silhouettes with unique way of attachable and detachable tiles patterns. Change basic pattern-making techniques in to new outfit via change its look -Creating unique outfits, which can use multi-look outfits.

### **Methodology**

This study used a mixed-method approach in which both qualitative and quantitative approaches were use. Focus on fieldwork as well as interviews with designers brought understanding of preferences of consumers and design problems. Computer programs aided in the transfer of elements of ceramic tile patterns onto fabrics.

### **Findings and Discussion**

The ideas frequently recommend that fabric tiles developed through the influence of Pakistani-Chinese tile work can be sophisticatedly incorporated into clothing designs and

provide for multiple styled looks. In addition, the new concept of removable fabric tiles makes it possible to design environmentally friendly multi-purpose clothing.

### Conclusion

This research attempts to fill the gap between those who understand art from its traditional perspective and those who are fashion enthusiasts. Drawing from the rich ceramic tradition of tile arts in China and Pakistan, this work addresses the emerging debate on the relationship between fashion, sustainability and cultural preservation.

### References

1. Medley, M. (1989). The History of Ceramics.
2. Qureshi, M. (2019). Islamic Art and Ceramics.
3. Wuhan Textile University Research Archives
4. Carboni S, Masuya T. Persian tiles (1993). Metropolitan museum of art.
5. Fang L. Ceramics of the Sui, Tang and Five Dynasties (2023). The History of Chinese Ceramics

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## Технологии 3D-моделирования в разработке коллекции трансформируемых головных уборов

**Абдель Вахед А.Э., аспирант,  
Азанова А.А., д.т.н., доцент**

Казанский национальный  
исследовательский  
технологический университет,  
г. Казань,  
Российская Федерация

*Реферат. В последние годы трансформация активно применяется в различных сегментах моды, включая повседневную и специальную одежду, а также аксессуары, такие как головные уборы. Трансформируемая одежда позволяет расширять границы дизайна и создавать изделия, способные адаптироваться под различные условия эксплуатации. Одним из новейших направлений в проектировании головных уборов является использование технологий 3D-моделирования. Эти технологии позволяют дизайнерам и инженерам создавать виртуальные прототипы, что значительно ускоряет процесс разработки, минимизирует ошибки и сокращает затраты на создание физических образцов. Кроме того, 3D-моделирование предоставляет возможность экспериментировать с формой и материалами. Разработка и внедрение трансформируемой одежды, в частности головных уборов, является*