



# Development of motifs inspired by Pandavleni caves and comparative study of techniques of transfer motif transfer on fabric

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**Abstract:** This study examines the use of traditional and modern motif transfer techniques on the fabrics. Motifs developed were inspired by the Pandavleni Caves in Nashik, India. By taking inspiration from intricate carvings of the caves, ten motifs were developed using CAD, and one was chosen to create samples through hand painting, digital printing, and embroidery on cotton fabric. The objective was to assess the adaptability and visual impact of these techniques while showcasing how historical motifs can seamlessly integrate into contemporary fashion to preserve cultural heritage. The results demonstrated that hand painting and digital printing and screen printing were highly favored for their vibrant colors and precision, where as embroidery, though valued for its craftsmanship, was less preferred due to slower execution and challenges in detailing. This comparative analysis highlights the potential of merging traditional artistry with modern technology to innovate textile designs, making cultural heritage more relevant and appealing to today's audiences.

**Keywords:** Pandavleni Caves, motifs, textile techniques, hand painting, digital printing, embroidery, cultural heritage, CAD design, traditional artistry, cotton fabric, comparative study, visual appeal, innovation.

## 1. INTRODUCTION:

The biggest role in this evolution is played by fashion trends. When it comes to clothing, fashion and trends have carved a special place in people's hearts. Fashion has always reflected culture, history, and personal expression. In recent times, there has been a growing trend to merge the beauty of historical architecture with modern fashion. One such example is the

integration of ancient motifs and designs from heritage sites into contemporary clothing. This not only revives the rich legacy of our past but also allows it to thrive in the modern world.

Historic architecture motifs can be used to tell stories, helping designers communicate themes like tradition, craftsmanship, or nostalgia, which people have grown to appreciate. Fashion and architecture share common principles of design, such as form, structure, balance, and proportion. Drawing inspiration from architecture allows designers to explore new design possibilities and push creative boundaries. India has approx.

The Pandavleni Caves, also known as Pandu Caves or Trirashmi Caves, are a group of ancient rock-cut caves located in Nashik, Maharashtra, India. These caves date back to between the 1st century BCE and the 3rd century CE and are considered an important historical and cultural site, reflecting the religious and artistic heritage of early Indian rock-cut architecture.



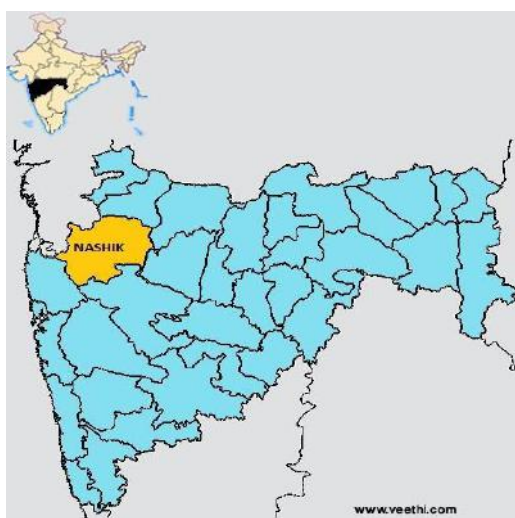
Pandavleni Caves in Nashik, Maharashtra, are remarkable remnants of ancient Indian art and culture. Carved into solid basalt rock many centuries ago, these caves are not only impressive structures but also showcase intricate motifs that reveal the spiritual and artistic expressions of their time. The caves feature Intricate geometric carvings and patterns on their walls and pillars. Depict lotus motifs, symbolizing purity, and enlightenment. (Sandeep V. at al, 2018). These caves are not just a historic site but also a wellspring of inspiration for latest fashion collection. Incorporating the beauty of ancient cave carvings into textiles can bring significant changes to the textile world and attract consumer interest.

These textiles can promote sustainability by encouraging the use of traditional techniques and materials, which resonates with environmentally conscious consumers. Hand painting has held a prominent place from ancient times to the present day. This art form has a unique identity and plays a significant role in enhancing the beauty of fabrics. Similarly, with the changing times and the increasing demand from people, digital printing has also steadily gained popularity.

Study Focuses on motif inspired by the Pandavleni Caves was created and used to produce two samples using both techniques. one sample in hand painting and the other in digital printing. This allowed for a comparative look at how the same motif can be adapted to different techniques, showcasing both the intricate, timeless appeal of hand painting and the efficient, vibrant finish achievable with digital printing.

## **2. Methodology :**

### **Area of Selection**



Source: [www.veethi.com](http://www.veethi.com)

The Pandavleni Caves selected for study, which were located in Nashik. There was no road or vehicle access to reach them; they could only be accessed by climbing stairs. Nashik was a well-known district in Maharashtra, located 212Km from Mumbai.

#### **Data collection**

Informal discussions were held, and data was collected from primary and secondary sources. The primary sources included pictures and multiple visits, while the secondary sources included books, websites, and research papers.

#### **Development of Motifs on CAD**

First step, after opening the app, was to select the page size and width. An asymmetric shape tool was chosen on the selected page, which created the design. The shape's size was adjusted and then set to the same size from all four sides. Finally, in the "Last view" option, the "Pattern review" was selected, and by pressing Control + (-key), the design was assembled, resulting in a unique pattern.

#### **Selection of Motifs**

Total of 10 motifs were developed, inspired by features of the Pandavleni Caves. Out of these 10 motifs, one motif was selected, keeping the color combination and everything else consistent. This one motif was then used to create samples.

#### **Selection of Fabric**

Cotton fabric was selected for hand painting, digital printing, and embroidery techniques because cotton is suitable for each technique. Plain off-white fabric was used so that the techniques stand out, making it easier to determine which technique is most suitable.

#### **Selection of Motifs**

A total of 10 motifs were developed, from which one motif was selected that would be suitable for all techniques.



#### **Selection of Colors**

Colors were chosen with the help of a color scheme, in which a complementary color scheme was selected. Complementary colors use one main color and its opposite on the color wheel. Colors on opposite sides of the color wheel are called complements. The main color is dominant, while the opposite color is used as an accent. Complementary color schemes are used not only in film but in all art forms. (kench S. 2020)



## Development of Samples

### Sample 1: Hand Painted

Using acrylic paints Researcher rendered the motif selected through a curated process, successfully completing the entire design within a duration of 30 minutes.



### Sample 2: Hand Embroidered

The researcher used cotton thread for embroidery and completed the entire motif using satin stitch. This method was time-consuming and took the most time to create the sample compared to other methods.

### Sample 3: Digital printed

The digital print sample was produced at a printing unit located in Ahmedabad, Gujarat, named JMB Digital Print. The process required two days to complete, and the finalized sample was received within this timeframe.



### Sample 4: Stencil printing

The selected design was cut onto a stencil, which was then carefully placed on the fabric. Using acrylic paint, the color was applied by squeezing it through the stencil, mimicking the traditional stencil printing technique. The completed design was left to dry for a few minutes to ensure proper setting. While this method was slightly challenging for intricate designs, the process was executed successfully.



### Sample 5: Screen Print by spray Method

The same stencil was used for this method however, instead of squeezing the color through the stencil, the paint was sprayed and tapped onto the design. This slight variation created a different effect while maintaining the overall process similar to traditional stencil printing. Tapping required less paint compared to the squeezing method and allowed intricate designs to be painted more easily. Upon drying, the effects of both methods appeared identical, with no discernible difference observed.



### Sample 6: Applique work

Fabric was selected according to the chosen color theme, and the fabric was carefully cut based on the traced motif design and then locked using the hand-sewing method. In this technique, the design highlight is more prominent.



### 3. Result & Discussion

A total of 6 different traditional techniques were used, 6 samples were prepared to determine which technique enhances the beauty of the design the most.



1: Hand painted  
Sample



2: Digital printed  
Sample



3: Hand Embroidered  
Sample



4: Screen Printed  
Sample



5: 2<sup>nd</sup> Screen Printed  
Sample



6: Applique Work  
Sample



## Survey Rating Of Developed Samples

The survey results, as presented in the table, reveal a high level of participant satisfaction. Total participants are 50.

Sample No.	Technique Used	Respondents no. 50	%
1	Hand Painting	12	24%
2	Hand Embroidery	4	8%
3	Digital Printing	13	26%
4	Screen Printing	7	14%
5	Screen printing through Spray	5	10%
6	Applique Work	9	18%

The ratings of a total of 50 participants were collected. The participants showed good interest in all techniques, with the exception of embroidery, which received slightly lower interest. The remaining techniques, including hand painting, digital printing, and Screen printing, received excellent ratings in the range of 18% - 24% percent, with no significant differences among the techniques. These motifs proved to be effective for all the techniques, and the participants also expressed a high level of interest in them.

## 4. CONCLUSION

This study successfully demonstrated how traditional motifs inspired by the Pandavleni Caves can be adapted into modern textile design using various techniques. Among the six methods explored, hand painting and digital printing stood out for their vibrant and precise results, while embroidery, though rich in craftsmanship, proved time-consuming. The survey reflected a strong appreciation for heritage-inspired designs, especially when combined with efficient and visually appealing methods. Overall, this research highlights the potential of blending cultural heritage with modern technology to create innovative and meaningful textile designs.

## REFERENCES:

1. Sandeep, V. P., Singh, M., & Gautam, P. K. (2018 July 02) Cave Tourism – A study on potential of Pandav Leni cave in Maharashtra, Amity Research Journal of Tourism, Aviation and Hospitality. Retrieved- 5 August 2024- 4:10PM.
2. Veethi (n.d), nashik map  
<https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.veethi.com%2Fplaces%2Fmaharashtra-nashik-district-392.htm&psig=AOvVaw37uD8OeYkqevU6PN4lb-0&ust=1730910584562000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCMiCsJ3OxYkDFQAAAAAdAAAAABAJ>. Retrived 25 October 2024. 4PM.
3. Kench S, (22 November 2020) What is color scheme definition example, studio binder.  
[https://search.app?link=https%3A%2F%2Fwww.studiobinder.com%2Fblog%2Fwhatis-a-complementary-color-scheme-definition%2F&utm\\_campaign=aga&utm\\_source=agsadl1%2Csh%2Fx%2Fgs%2Fm2%2F4](https://search.app?link=https%3A%2F%2Fwww.studiobinder.com%2Fblog%2Fwhatis-a-complementary-color-scheme-definition%2F&utm_campaign=aga&utm_source=agsadl1%2Csh%2Fx%2Fgs%2Fm2%2F4) Retrived 14 Nov 2024 (9 PM).