



Decoding Nuances Of Traditional Interior Crafts: Miniature Painting, Thikri And Jali Work Of Rajasthan

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Abstract: The building surfaces in Indian traditional architecture are not only considered mere enclosures but are treated as artistic and expressive mediums which can integrate functionality, aesthetics and cultural expression. This thesis paper intends to explore the craft of jali construction, mirror work (thikri) and Mewar miniature painting from Rajasthan, India. These crafts are part of traditional design vocabulary, developed out of the cultural heritage of the region and passed on from generation to generation. Each of these crafts plays a significant role in surface articulation and interior spatial composition.

Jali, in addition to being decorative and ornamental, is functional in many ways - it controls the temperature within the space by providing shade from the heat, regulates privacy of the space, while being beautiful at the same time. Similarly, mirror work (thikri) is traditionally used for decoration purposes, to enhance the beauty of the space by reflecting light within it, thus increasing its luminosity. Traditionally, miniature paintings had an important significance by portraying various narratives.

With industrialization and changing aesthetic and functional preferences, the importance and meaning of these crafts has diminished and they are today used mostly as decorative elements. The aim of this thesis is to document and explore these crafts and their application within contemporary interiors in the context of their cultural heritage. Case study analysis of traditional interiors will be used in combination with visual and material analysis.

Index Terms – Jali, Thikri Work, Mewar Miniature Painting, Traditional Indian Crafts, Building Surface Crafts, Cultural heritage, Traditional craft techniques, Contemporary Applications

I. INTRODUCTION

Inheritance of traditional crafts is considered to be one of the fundamental aspects of Indian culture that includes thousands of years of knowledge, craftsmanship, and regional design solutions. Traditionally, Indian craftsmen not only aimed to produce aesthetically appealing artifacts but also tried to meet functional requirements including thermal comfort, privacy, durability, narrative function, and identification through various forms of decoration. Through the skillful use of local materials and handwork, Indian craftsmen

created beautiful and well-designed items that also fulfilled their purposes. Today, these crafts can be regarded as a good example of sustainable and user-friendly design.

One of the most remarkable Indian regions that can be explored in terms of traditional crafts is Rajasthan because of its royal history, architecture, and craftsman's traditions. Many traditional decorative crafts developed in this state, especially in cities like Jaipur and Udaipur, were widely applied inside palaces, havelis, temples, and homes. They include carving, painting, mirror decoration, and screening, among others that help to create interiors of extraordinary beauty. Therefore, they should be considered a good sample of how the process of designing was influenced by culture and environment.

Crafts of Rajasthan also show excellent intelligence in terms of climatic conditions and functionality. Jali worked towards providing sunlight, encouraging ventilation, and maintaining privacy, while Thikri works helped in reflecting light and adding a touch of brilliance through visual effects. Miniature paintings brought narratives, symbolisms, and emotionality into play. These crafts usually served many purposes at once like climatic, decorative, and cultural but in modern day settings, they are only used for decorative purposes, forgetting their real utility and conceptuality.

The purpose of the current study is to determine some distinct crafts practiced in Jaipur and Udaipur, understand their visual aesthetics, materiality, and functional logic, and find ways in which they could be adapted in contemporary interior design settings. The main goal of this research process is not just replication, but re-interpretation of some traditional crafts in a new, contemporary setting so that they continue to evolve further.

II. AIM

In order to decode the craftsmanship, examine the historical evolution and the compositional characteristics of this crafts that is traditionally utilised within the interiors of cities like Udaipur and Jaipur in Rajasthan, and to explore it's potential applications within the modern interiors through innovative ideas and designs.

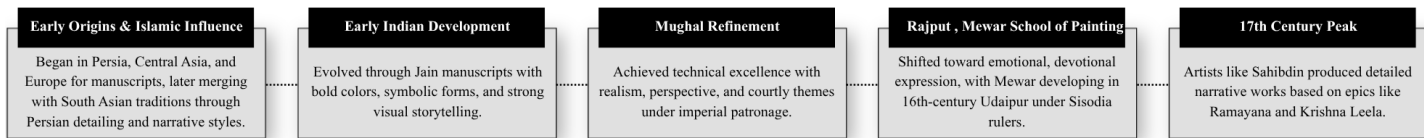
III. NEED OF STUDY

- To revive crafts into functional design components rather than just decorative ones in interiors and architecture by deciphering the intricacies of each craft and translating them into a modern design vocabulary.
- To develop a system in which jali, thikri, and miniature paintings can work in tandem, adding value to the environment in terms of quality, culture, and experience.
- To aid design education and research through documentation.

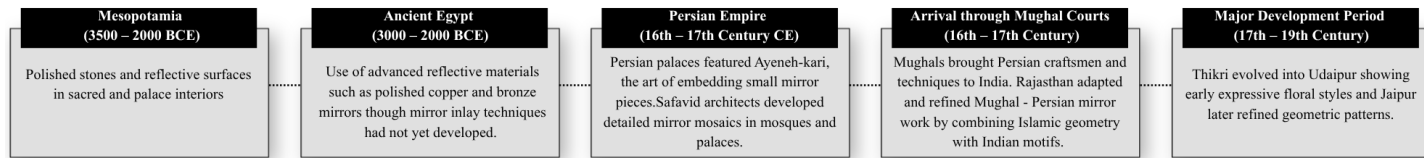
IV. HISTORICAL BACKGROUND

Jali, Thikri, and Miniature Paintings are three art forms that reflect an unbreakable time-line based on cultural interactions and development at the regional level. These art forms were invented by the early civilizations and perfected due to the influence of Persia, Islam, and the Mughals. Over time, these art forms came to be utilized in a way suited for the regional environment, such as in Rajasthan, thus aiding in their development in terms of content and style. In essence, they reflect a growing trend in which the geometrical and reflective elements of storytelling have been fused together.

4.1 MINIATURE PAINTING



4.2 THIKRI CRAFT



4.3 JALI WORK

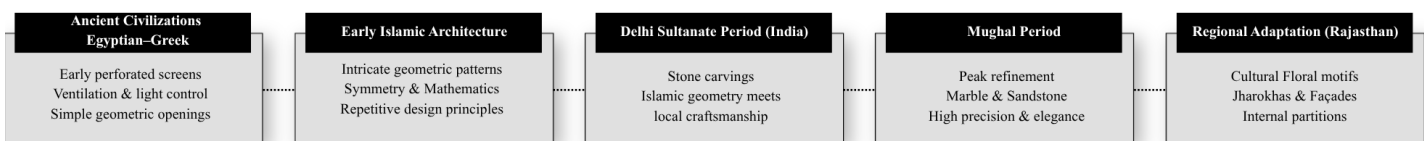


Fig. 1: Evolution and Timelines of Crafts from Global Origins to Rajasthan Adaptations

V. MATERIAL AND TOOLS

5.1 MINIATURE PAINTING

Mewar miniature paintings utilize materials and tools that have to be delicately crafted, as dictated by the fine nature of the art form. The materials used in Mewar paintings include handmade paper known as wasli, squirrel-hair brushes for intricate detailing, and at times camel bone when producing high quality works. The natural paints used in these paintings are extracted from minerals, plants, and stones, ensuring that the art forms maintain their vibrancy for a long period. The gold foil is used for additional coloring and shading.

5.2 THIKRI CRAFT

Thikri art is characterized by the presence of hand-blown glass pieces that have been set into the surface. This craft uses slightly uneven pieces of glass to create reflections, while other surfaces such as flat, clear mirrors and stained glasses are used to enhance visual experience. Lime plaster with additions of marble powder forms the base of the surface while modern alternatives have been developed that add fevicol glue as well as chemicals. Thikri tools indicate the accuracy of the work. These include a glass cutter to cut the glass pieces, grozers to refine the edges of glass, and blow pipes. For working purposes, the tools include gurmani which presses the glass onto the plaster and karni which aids in mixing and applying it.

5.3 JALI WORK

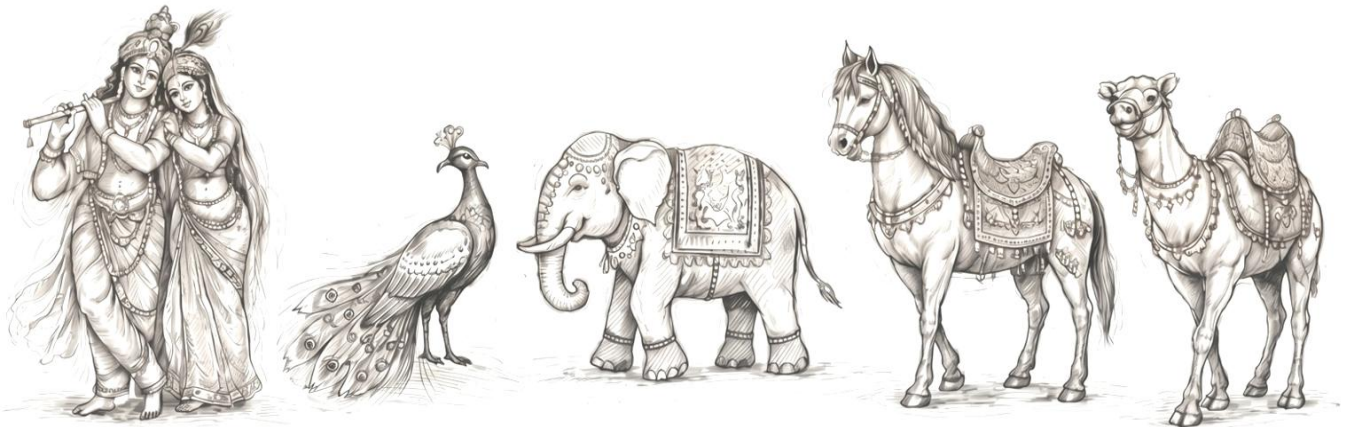
The Jali architecture also shows a close link between the accessibility of materials and their application. For example, in the initial buildings, such as the Amer Fort, the use of red sandstone is evident for its durability and ease of carving, while marble was used only for decorative purposes. In the City Palace, Udaipur, the use of marble and granite made the carving much more elaborate. In Bagore Ki Haveli, the choice of materials depended on cost efficiency and availability, using such materials as local stones, lakhori bricks, and lime mortar. In the modern era, the list of materials has been widened, including stone, wood, plywood, metal, and terracotta. The primary tools used include chisels, hammering devices, and various carving tools that allow creating complex geometrical shapes.

VI. PATTERN

Following are some visuals that describe the analysis of various traditional Indian craft styles, based on the symbolic motifs, stories, and applications. These include the symbolism of the elements used in miniature paintings, elements in Thikri decorations, as well as the use of Jali in architecture and how they are reinterpreted in contemporary interior spaces.

6.1 MINIATURE PAINTING

In miniature painting, patterns assist in the creation of sequencing and layers within the picture plane. They are used for storytelling purposes and guide the eyes of the observer from one area of interest to another. Patterns facilitate storytelling by balancing various elements through rhythmic repetition and scaling of motifs.



Krishna-Radha:
divine love, union,
bhakti, spiritual
harmony

Peacock: *beauty,*
grace, monsoon,
fertility, poetic mood

Elephant: *power,*
strength, wisdom,
royalty, grandeur

Horse: *valor, nobility,*
mobility, prestige,
warrior ethos

Camel: *endurance,*
resilience, desert life,
regional identity

Fig. 2: Interpretation and significance of motifs in Miniature Paintings

6.2 THIKRI CRAFT

In thikri, patterns serve as a method of surface articulation, which improves spatial experience through pattern placement. Depending on their layout, patterns scatter light in various densities, creating areas of highlight and contrast. This helps in creating dynamism in the otherwise flat wall surface.

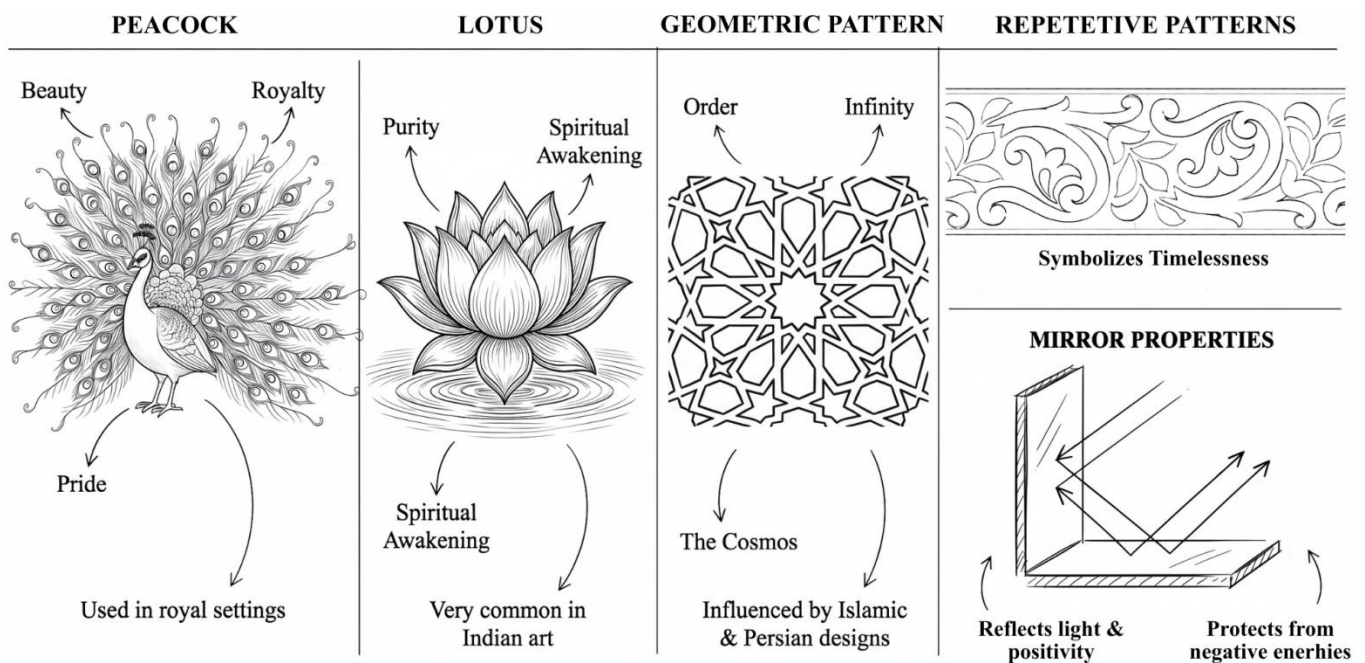


Fig. 3: Symbolism and Meaning of Motifs in Thikri Craft and its Mirror Properties

6.3 JALI WORK

In jaali, patterns are the means of transition between interior and exterior spaces. They provide light, shadow, and airflow while being visually permeable and private. Depending on their density and scale, patterns create openings and closings for spaces.

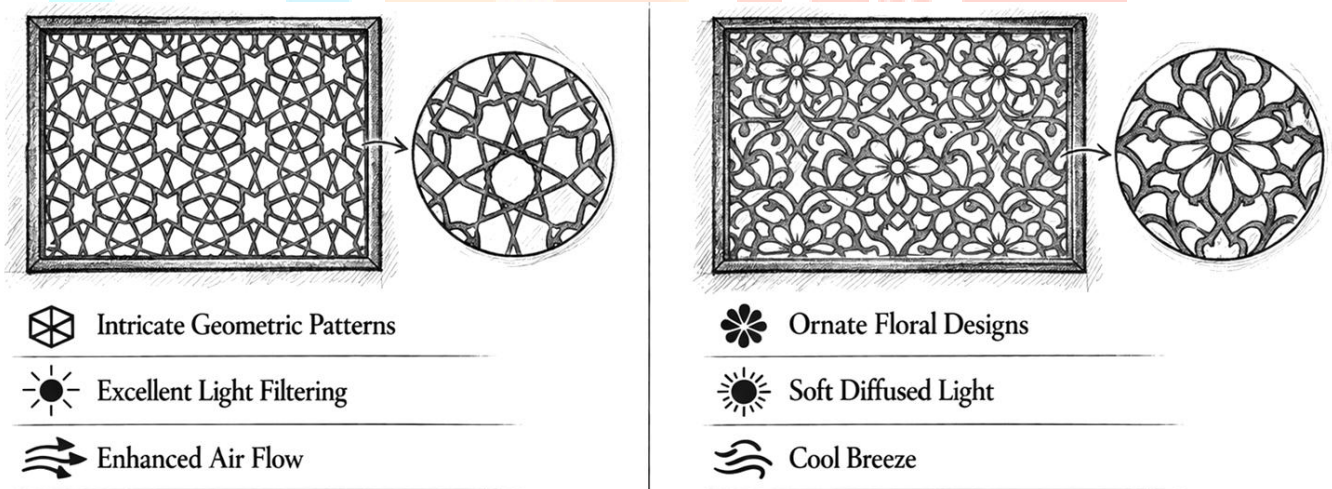


Fig. 4: The image depicts Jaipur’s geometric jali and Udaipur’s floral jali with their key characteristics.

VII. SPATIAL EXPERIENCE

7.1 MINIATURE PAINTING

The Mewar miniature painting makes use of layers in the composition of the painting. There is an organized use of background, middle ground, and foreground. The background does not have too many details, but it uses flat colors that can provide mood or atmosphere to the painting. In the middle ground, there are buildings, gardens, and other smaller characters who play supporting roles. The foreground, however, is where the main characters are placed in the painting, such as Radha, Krishna, or the king. These are painted using intricate detailing and show their interaction with others.

7.2 THIKRI CRAFT

Thikri crafts produce a very immersive spatial environment through their reflective and luminous characteristics. The integration of reflective glass pieces of varying shapes with plaster results in a

shimmery appearance that increases luminosity and generates dynamism in the interior environments. Through reflection on the surfaces that are either natural or artificial light sources, light is broken down into different beams, thus increasing the sensorial ambiance of the space. By combining the smoothness of the glass pieces and the rough surface of the plaster, the tactile quality of the material is accentuated, emphasizing the craftsmanship of the material. What matters most is that thikri manipulates perceptions of spatial environments in ways such that enclosed spaces seem to be expanded beyond their actual size.

7.3 JALI WORK

As a climatic architecture, jali creates an architectural feature that strikes the balance between lighting, ventilation, and engagement with the environment around it. Its perforations break up direct sunlight, diffusing it into softer light, and creating a constantly moving pattern of shadows. While allowing air to pass freely through the building, jali thus serves as an important natural ventilation system, making it suitable for dry and hot climates, such as those found in Rajasthan. Furthermore, the design of jali is highly context-dependent, with the spacing and sizing of perforations changing depending on the needs of specific spaces, their use, and the orientation within the building. Perforations that are smaller provide for a greater degree of privacy and control of lighting within a space, while those that are bigger reflect the openness to the environment, both literally, in terms of views, and figuratively, in terms of interactions with the surrounding world.

VIII. CASE STUDIES

8.1. MINIATURE PAINTING

8.1.1 CITY PALACE, UDAIPUR

Mewar miniature paintings found at the City Palace, Udaipur, were largely produced during the period of the sixteenth century to eighteenth century on commission by royalty such as Maharana Udai Singh II and subsequent Sisodia rulers. The miniature paintings at the City Palace Museum were created by court artists such as Sahibdin, depicting images from Hindu epics, royal activities, and Ragamala collection. The number of miniatures preserved in the City Palace Museum today runs into hundreds (although the exact number varies as many miniatures are in the royal archives), making up one of the finest collections of Mewar paintings. The paintings are arranged in individual rooms and galleries, where each hall or room showcases different themes, including images of Krishna Leela, religion-based themes, royal court events, and Ragamala.

8.1.2 PROCESS DOCUMENTATION

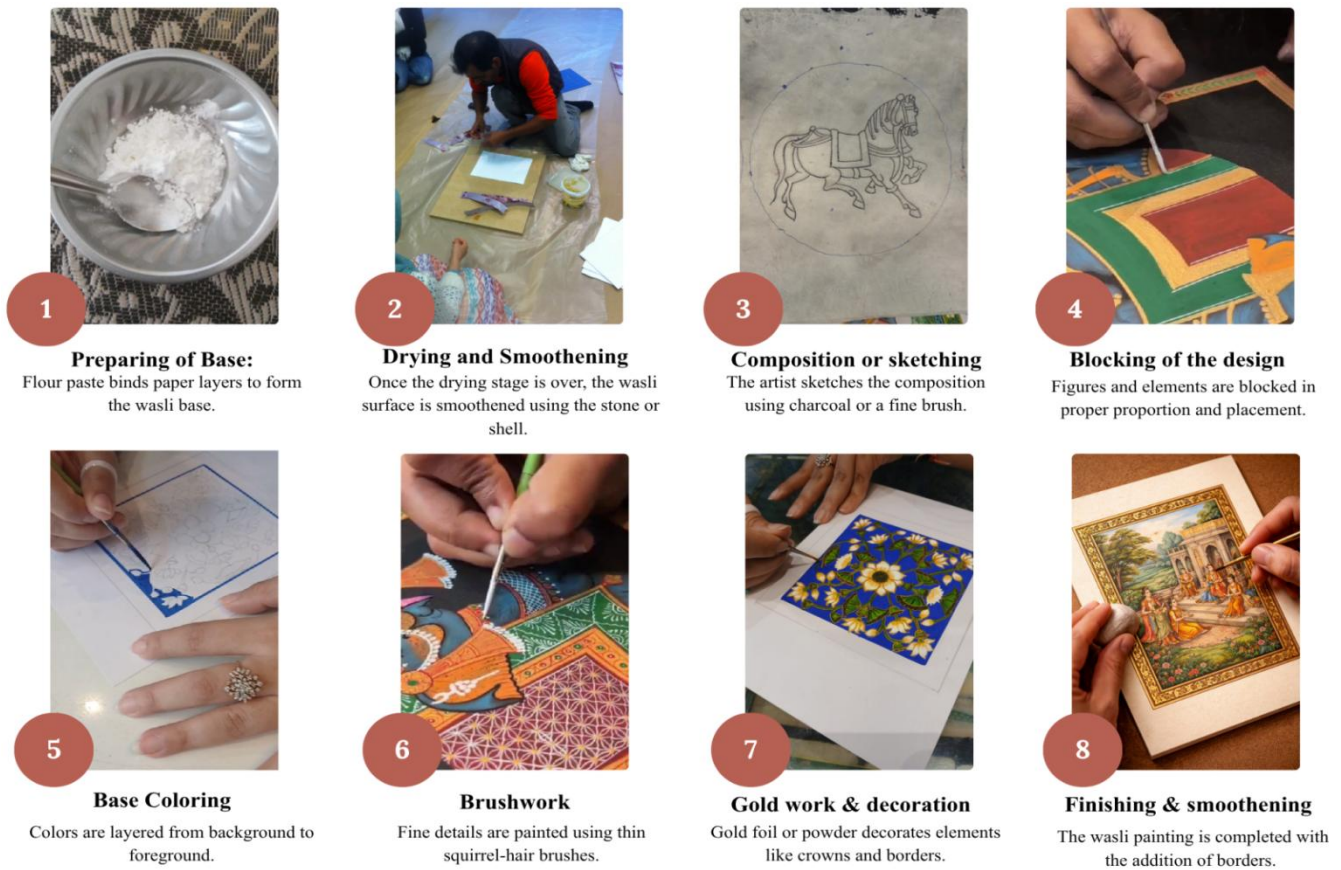


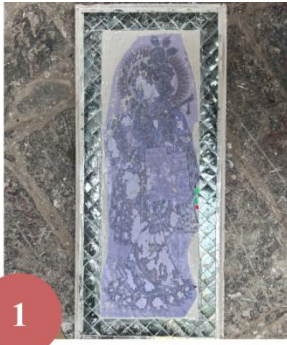
Fig. 5: Process Documentation of Miniature Painting

8.2 THIKRI CRAFT

8.2.1 AMER FORT, JAIPUR

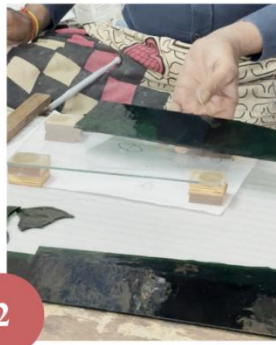
The Sheesh Mahal in Amer Fort, Jaipur, represents an outstanding example of thikri or mirror inlay work and Mughal - Rajput architecture. Thikri entails cutting out delicate pieces of convex mirrors and pieces of glass and placing them in lime plaster to form floral and geometrical designs, which are inspired from the Persian and Mughal tradition of art. The following case demonstrates the use of lighting technique in the above-mentioned place. It can be seen that the design is extremely sensitive towards lighting where the light rays entering into the interior space are multiplied by means of reflective properties of the convex mirrors. This creates a unique effect of glittering and shining. The light plays a major role in the atmosphere of this interior space. The reflective surface created by using the thikri technique causes a sensation of dematerialization of surfaces.

8.2.2 PROCESS DOCUMENTATION



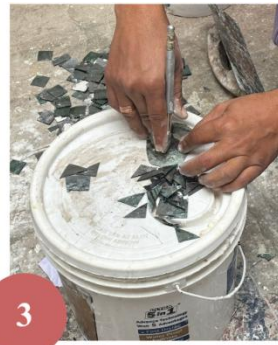
1

Development of concept and design:
Includes making of designs and pattern on paper by considering the shapes and geometry of the mirror pieces.



2

Selection of mirrors and glasses:
Different kinds of mirrors and glasses are selected depending on the preferable effect to achieve.



3

Cutting of mirror pieces:
Glass or mirror is cut into the required shape by using glass cutter while pliers cuts sharp edges into precise shapes.



4

Sorting and organization:
Glass pieces are sorted out based on their sizes and shapes, depending on the designs.



5

Preparation of the base surface:
The next step involves the preparation of a lime-marble powder and adhesive mixture.



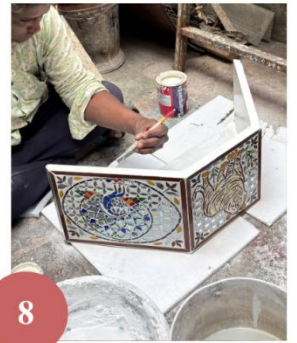
6

Temporary fixing of pieces:
Glass pieces are temporarily glued using natural adhesive (gond) to ensure that they stay in place.



7

Fixing and alignment of mirrors:
Pieces are embedded firmly in the base by pressing them and ensuring correct positioning.



8

Finishing work:
This includes filling gaps in between mirror pieces and cleaning the base surface.

Fig. 6: Process Documentation of Thikri Craft

8.3 JALI WORK

8.3.1 CITY PALACE, UDAIPUR

The jali screens at City Palace, Udaipur, provide an example of successful integration of craft skills, functionality, and response to space in traditional architecture. These jalis are usually characterized by stone carvings featuring dense perforations in geometric and floral designs. The jalis are commonly employed in the construction of windows and jharokhas. Due to the variation in the number of perforations per unit area, privacy can be successfully achieved while natural light enters the building through jalis in the form of diffused illumination. Stone material is chosen because it allows achieving maximum precision in carving while remaining durable enough. An obvious dependence between scale and functionality is seen from the fact that large scale jali patterns are typically used in exterior parts of buildings to increase air circulation, and dense patterns while small size are employed in semi-private or higher zones.

8.3.2 PROCESS DOCUMENTATION

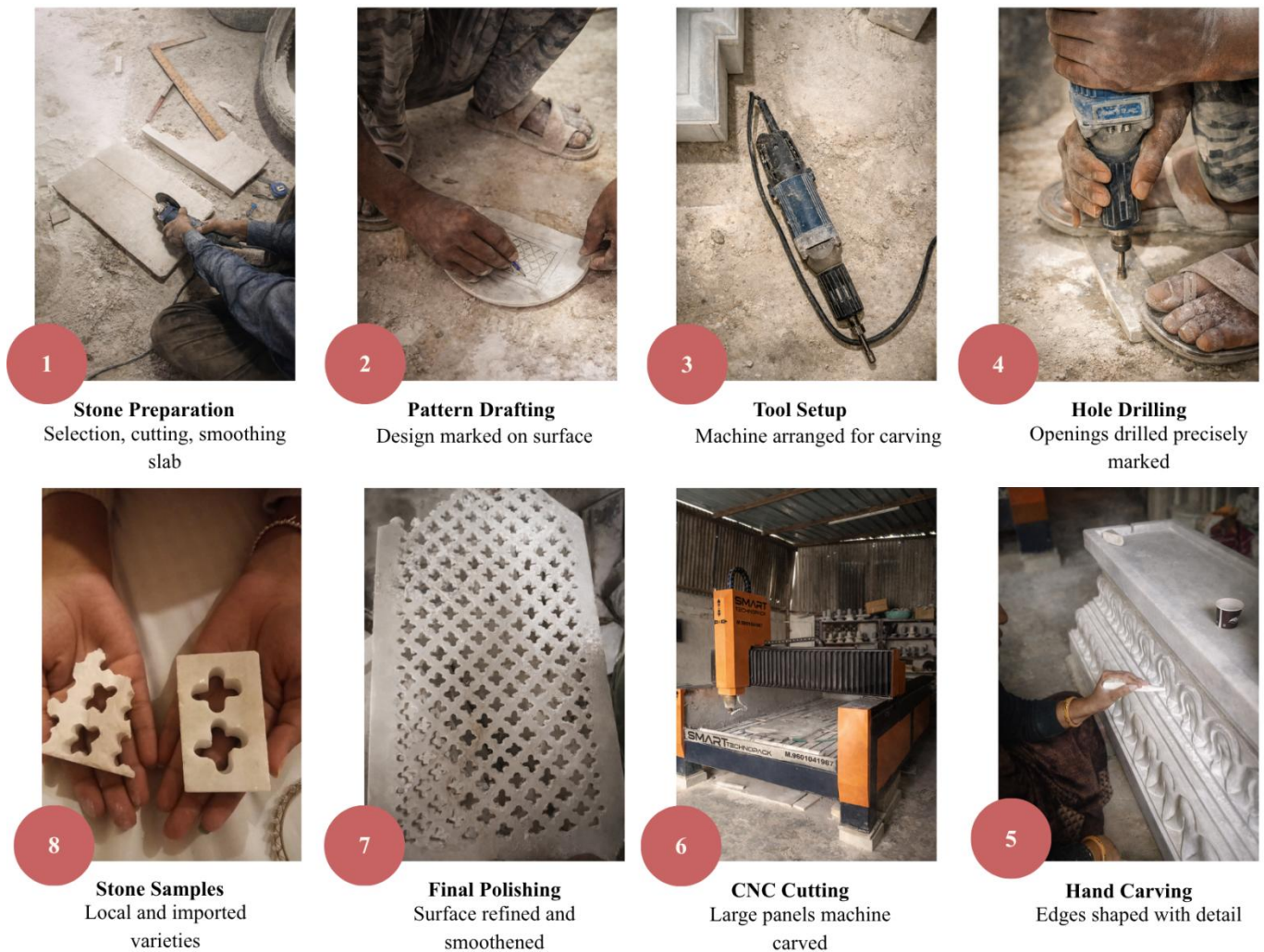


Fig. 7: Process Documentation of Jali Work

IX. CHALLENGES & PRESERVATIONS

9.1 INTERVIEW SUMMARY

Several useful observations related to their cultural importance and current problems were gained in the course of interactions made with local artisans, vendors, and foreigners in regards to both miniature painting and Thikri art. The main issue voiced by representatives of these crafts is that the young people of today are less willing to keep up this tradition since the demand for the products tends to decrease and the earnings are irregular and not lucrative enough to provide a modern and decent lifestyle. It can be said that the continuation of these crafts will be more difficult due to the lack of successors. More efforts should be devoted to drawing the attention of people to these traditions through increased awareness and the assistance of governmental organizations in promoting them. Another point concerns the difference between these two types of crafts, in particular, regarding the seasons during which the demand rises. While miniature painting can be considered seasonal art since orders increase during October – March because of the increased number of tourists. Thikri art faces sporadic demand, where orders are infrequent but highly valued when received due to the intricate craftsmanship and labor intensive process involved.

The next important point concerns the differences between Indians' and foreigners' approaches to these art forms. While the latter admire compositions, rich coloring, detailed paintings, and think that they are fairly priced, the former are indifferent towards miniature painting, even preferring some international brands that offer the same products for sale. Moreover, artisans themselves admit their difficulties in marketing and developing business relationships, especially on social media accounts, which are hindered by the lack of technical skills and knowledge. While the idea of finding professional marketers may arise, the main obstacle is financial inability since these crafts have low earnings in general.

9.2 PUBLIC SURVEY

As seen from the bar graph (Fig. 8), most of the people agree with the idea that traditional arts can be used in contemporary interiors. While others are either neutral or do not agree with this opinion, it reflects a relatively positive attitude to this idea.

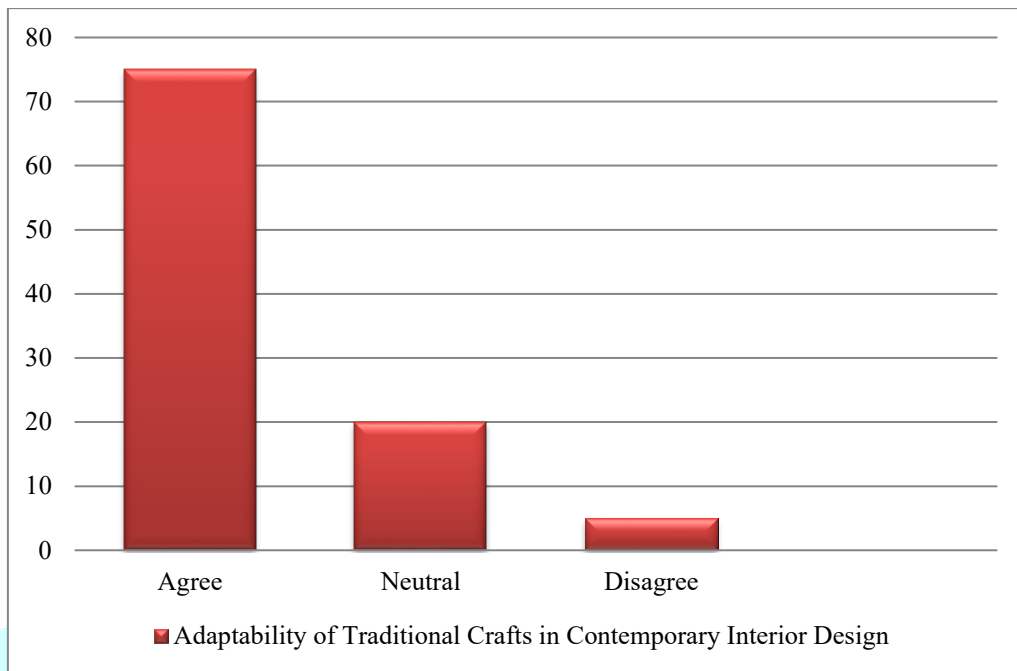


Fig. 8: Bar Graph

The bar graph (Fig. 9) shows the major reasons for rejecting traditional arts in contemporary interiors. The major reason is the cost factor, followed by the maintenance problem. Comparatively, lack of awareness and lack of skilled artisans are secondary but still relevant barriers.

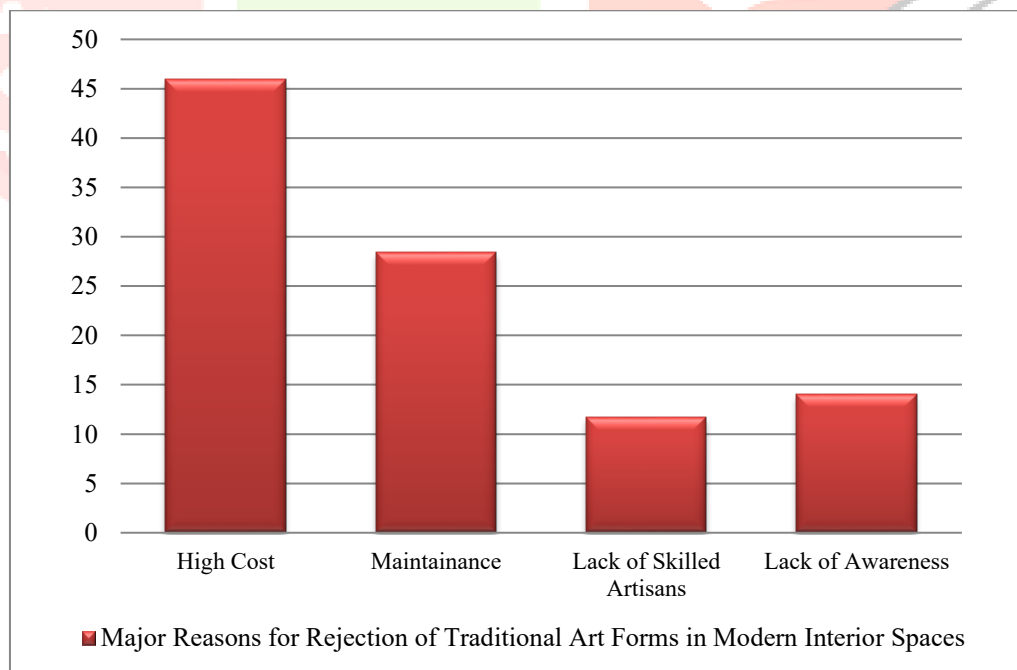


Fig. 9: Bar Graph

X. APPLICATION IN CONTEMPRARY INTERIORS

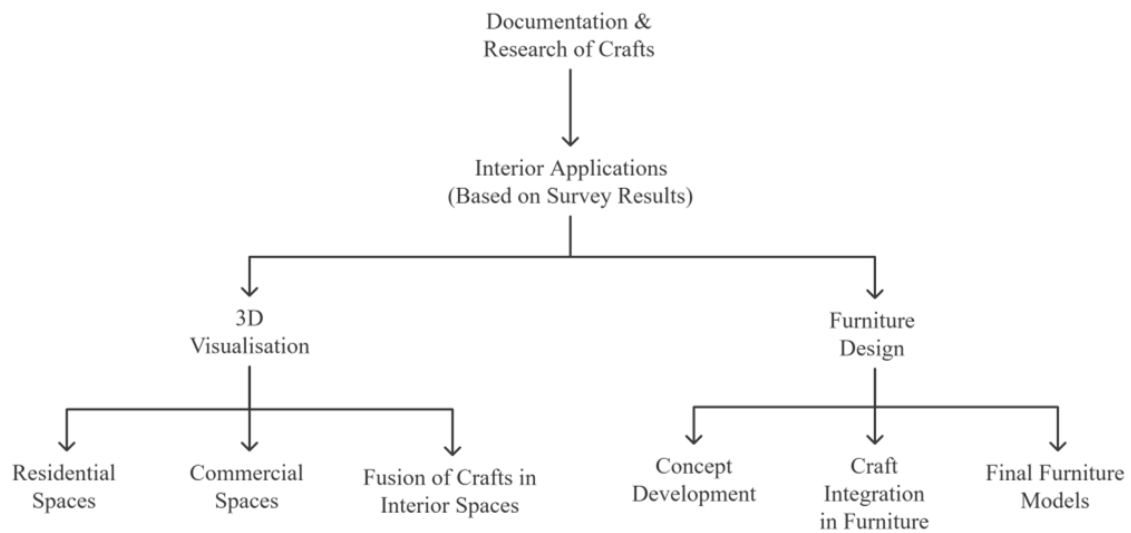


Fig. 10: Framework for Translating Craft Research into Interior Applications and Furniture Design

The results of analyzing the survey responses clearly indicate a difference between the awareness of and usage of traditional crafts in modern interior design. Although the Jali craft is widely acknowledged and easily incorporated into contemporary interior designs because of its functional and aesthetic value, other crafts like miniature and Thikri art do not receive the same attention because of the lack of awareness about these arts and the feasibility of incorporating them in current design trends. It becomes imperative to incorporate Jali, miniature, and Thikri crafts in individual and hybrid form in interior design as this will help maintain the cultural identity of the region and meet the demands of modern design.

10.1 MINIATURE PAINTING

Following case demonstrates that miniature paintings have evolved beyond the scope of two-dimensional artwork and involve more than one pattern and surface to tell a complete story in space. This technique depicts royal scenes, processions, symbolic nature and festivals through wall panels (mural), cushions (small pattern motifs), and vases (decorative patterns).



Fig. 11: Beyond Two Dimensions: Miniature Art in Contemporary Spaces

10.2 THIKRI CRAFT

The bellow 3D visual illustrates an example of a contemporary, characterized by thikri craft, and has been deliberately incorporated as part of its design using stylized representations of palm trees and birds. Here thikri is interpreted in a modern setting to show how the traditional craft can be applied in the present day.



Fig. 12: Contemporary Interior Application of Thikri (Mirror Inlay) Craft as a Feature Wall Installation

10.3 JALI WORK

This picture illustrates how Jali work can be used in the contemporary interiors in terms of wall screens, dividers, and even in the ceilings of workspaces. It helps diffuse light, provide cross ventilation, offer privacy, and enhance the aesthetic value without losing the traditional significance of Jali work.



Fig. 13: The Role of Jali in Spatial Experience and Light Modulation

10.4 FUSION OF CRAFTS IN CONTEMPORARY INTERIORS

The hybrid reinterpretation approach explores the fusion of three different Indian craft forms. Miniature painting, Thikri craft and Jali Work, to create one unique modern piece of furniture or interiors. Through blending together their individual visual characteristics, materiality, and functionality, the concept seeks to maintain the culture in its true essence yet adopt it in today's world. In these concepts, ornamentation, functionality, play with light, and storytelling all exist together. The following images are conceptual based applications of this hybrid design idea.



Fig. 14: Contemporary Installation Featuring Jali and Thikri Inspired Canopy with Integrated Miniature Elements



Fig. 15: Fusion of Jaali Work, Thikri Craft, and Miniature Painting in a Contemporary Interior Setting

XI. SUMMARY OF FINDINGS

The research finds that traditional crafts like Jali work, Thikri craft, and miniature paintings from Mewar have immense functional and environmental significance but in today's times are only recognized as aesthetic objects. It can be said that out of all three crafts, Jali is known to be more recognizable and flexible since it serves the purposes of ventilation, controlling light and spatial demarcation. However, the other two crafts named Thikri and Miniature are less known and serve primarily as decorative objects. It is found that through the surveys that there exists a lack of understanding and knowledge regarding the use of these crafts in interiors. Overall, it can be observed that the crafts are not used in an integrated manner in today's time, thus creating a need to look at ways through which these crafts can be utilized in interiors individually and Hybrid manner.

XII. FUTURE SCOPE

The future scope of this research study is in exploring ways that traditional crafts can be interpreted through modern design approaches. The possibilities of using the concepts of Jali, Thikri, and miniature paintings in a blended way are immense in the context of both domestic and office interiors and even furniture design. Through improvements in the realm of technology and material sciences, these traditional techniques can be made more flexible for integration in interior designs and architecture without losing their core identity. It would also be interesting to explore the sustainable usage of materials in these techniques and making modules for these craft items.

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