

A Study For Revival of Indian Chintz Design For its Sustainability

Synopsis

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Endorsement from the Supervisor

Ms. Mitali Shah has researched extensively on the topic, “ **A Study for Revival of Indian Chintz Designs for its Sustainability**” vide registration no. **FOF/184, dated 7.7.2018**. She has presented her progress of work in all seminars well attended by teachers and students of the department.

She has submitted a paper titled, “**Indian Chintz-Craft Identification As An Exquisite Hand-Painted Traditional Textile**”, for publication.

Ms. Mitali Shah has also undertaken and completed project titled -**Revival Of Chintz - A Languishing Traditional Craft Of India** with **The Research and Consultancy Cell, The Maharaja Sayajirao University of Baroda, Vadodara.**

She has received a project grant for “**Development and Implementation of Craft Sustainable Model For Chintz Textiles**” from **The Research and Consultancy Cell, The Maharaja Sayajirao University of Baroda,**

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CHAPTER-1

INTRODUCTION

Indian sub-continent has been bestowed with the reserves of the rich tradition of textile crafts. Over a millennium, these luxurious textiles shower vibrant colours and intricate patterns making a remarkable and exclusive fashion statement. Indian crafts artisans, meticulous in technique and skilled in their artistic expression, were blessed with an environment that supported natural resources. This enabled them to create the most magnificent masterpieces, which are bespoke and reminiscent of the glorious past, narrating the story of their exuberance. Amongst the popular textile traditions of woven, printed, painted and embroidered textiles, the most popular tradition was the knowledge of resist and mordant painting. The technique of painting with natural dyes originates from 5000 years BC. (**Vadarajan. L**)

The earliest mordant and resist-dyed textile remains, recovered from the archaeological excavations was the fustat textile fragment, dating back to the 15th century BC, India, which was discovered in Egypt which states the resist design depicting *geese or hamsa around the lotus petal*.

The popularity of Indian culture in past was due to an amalgamation of rich heritage in forms of arts, crafts and highly skilled artisans. The Indian Chintz, also known as Coromandel Chintz, which made history due to its popularity and craze worldwide.

These textiles were hand painted by application of mordant using, a bamboo pen referred to as kalam, along with resist dyeing technique on cottons. In a few pieces of late eighteenth century, block printing was combined with hand-painted ones (**2000, Crill R**). These even in their design marvel were often referred to as inferior or less superior qualities as the best were very intricately patterned and perfectly painted and dyed. “Send only the finest of the painted chintz...” (**John I**)

However, there exists a major connotation around the usage of the word “chintz” due to the vast period of its existence from the late seventeenth to the early eighteenth century and regional references and its evolution. This resulted in arrays of development in the design on these textile pieces, due to various factors and cultural influences which is addressed in this thesis.

Chintz textiles originated in India, around Southeast Asia –Coromandel Coast, during the seventeenth and eighteenth century and these caught the attention of foreign traders and were

mainly made for exports to Europe and South Asian countries like Indonesia, Japan and Thailand for the exchanges of peppers and spices. This cloth was mainly used as currency by Europeans in many South Asian countries. (Guy, J.)

The main appeal of Indian Chintz textiles to European buyers in the 18th and 19th centuries was the brilliance and fastness of colour (Irwin. J and Brett. K), the technology they lacked in their country. They did not even have knowledge of cotton cultivation, spinning and weaving. Hence the Chintz technique with mordant and resist hand painting, with natural dyes on cotton, with its fine and detailed design, evoked immense curiosity and interest of many foreign traders and travellers. These people often recorded the detailed process and technique and created rich documentation for their reference which today serves as an important reference for the study of these. The technique practiced then, was an interesting amalgamation of knowledge, skill and ingenuity in understanding the properties of materials and their behaviour with reference to the natural environment by the master craftsman involved.

However, Chintz became very popular globally making India known on the world map, but the industrial revolution in Europe forced their officers to lay a ban over their exports. “*Send No more Chintz...*”, (Guy, J.) This led to a decrease in demand for Indian chintz and leading to gradual extinction. As the chintz export from India was banned, it led to the downfall in chintz demand and the gradual extinction of these textiles along with the meticulously perfected techniques involved in making them. In 1958, Kamala Devi Chattopadhyay tried to revive this technique and termed it as the “Kalamkari”. This led to the evolution of two different styles related to this ancient craft based on the place it was revived, namely Kalamkari from Sri-Kalahasti and Machilipatnam. The researcher observed that there is a difference between the traditional chintz and revived kalamkari. So, the researcher also attempted to retrieve the rich history of the Indian Chintz, with its main characteristic features, and technique. It was also felt that here was a deep need to study the different design configurations and their symbolism and how the entire craft has developed. Hence the design, layout as well motif development, formation and symbolism of motifs forms an important part of this study. While studying and analysing the existing form of kalamkari there were significant differences observed between the present styles with the ancient traditional forms that were made for exports, which called for an earnest effort in establishing and retrieving the lost identity of the Indian Chintz textile in its original form.

Rationale/Statement of the Problem

Chintz, though popularly known as textiles, is a fine technique of mordant painting and resist dyeing, using varied natural dyes with kalam. The main feature of this technique, is attributed to the development of awestruck and elaborate designs and the technology of painting with natural dyes on cotton. The technique which was once very popular and was source of economic resource is extinct now. This was due to very lengthy and time-consuming process in practicing the art. These chintz artefacts are now only surviving in museums. These offers the rich narrative of its glorious past and survival till date. It is indeed an imprint, of the rarest and the most perfected technology that is employed in its production. These masterpieces offer an insight of the rarest and finely perfect technology by the master craftsmen during that time. This craft and technology were of a great asset value to India, which the entire globe looked upon. This offered an opportunity for export of those fine pieces in exchanges for various foreign goods. This gave India a global cross-connect and a significant identity during that time. The magnificent technique has inspired the researcher to study present textile pieces for its designs, the pattern and impact chintz trade created in cross cultural exchanges. An attempt is made to explore the revival of the age-old art to that precision. The main objective of this study is the documentation of chintz designs and exploring the techniques for its revival and study the revolution it establishes in socio-cultural context, which marks chintz textiles and technique that resulted in global phenomena of connect, transformation and revolution. Hence often referred to as the cloth that changed the world.

Purpose of the Study

The main feature of the Chintz textile and technique is attributed to the development of awestruck and elaborate designs and the technology of painting with natural dyes on cotton. These textiles were an important source to procure economic revenue and resources. Hence was referred to popularly as “ trade cloth”. This cloth was exported to European countries mainly and globally. It was very popular due to its awestruck and beautiful design and people were crazy for this fabric So after the Industrial Revolution in Europe their export was banned. This resulted in a decrease in demand for this cloth since it was mainly made for export, and it resulted in the gradual extinction of this textile and the technique. The chintz textile masterpieces that are achieved in museums offer an insight into the rarest and finely perfect technology by the Indian master craftsmen during that time. This craft and technology was of great asset and value to India, which the entire globe looked upon. This allowed exporting these

fine pieces in exchange for foreign goods which gave India a global cross-connect and a significant identity during that time. The beautiful textile and its technique have inspired, the researcher to study and attempt to explore the revival of the age-old art and its making to that precision. The main objective of this work is the documentation of Chintz, study its designs and explore the techniques, for its revival, and create a suitable marketing model for its sustenance

Objectives

1. To study the origin, evolution and establish identity of Indian chintz textiles
2. To study the role of chintz textiles in the development of the Indian global trade and socio-cultural connect
3. To document and study chintz textiles, with reference to their design
4. To create a craft repository of Indian chintz textile and its techniques
5. To develop and implement craft sustenance model for chintz textiles.

Delimitation

1. Documentation of chintz textiles is limited to chintz textiles which were hand-made in India with the tree of life as the main theme only.
2. The re-creation of samples, design analysis, and product development was limited to the selected pieces from the documentation in the study.

Operational Definition

- 1) **Chintz** term in the study is referred to as textile article as well as technique.
- 2) **Co-Design**-The term applies to equal participation and collaboration where the researcher contributes to the design process and interpretation while the master craft person uses his craft execution skills and knowledge.

Chapter 2

REVIEW OF LITERATURE

2.1) Theoretical Review

- 2.1.1) Historical overview of textile craft development across the globe.
- 2.1.2) Textile craft and trade routes in Southeast Asia during the 17th, 18th and 19th centuries.
- 2.1.3) Development of painted and printed textiles in India during the 17th, 18th and 19th centuries.
- 2.1.4) History, origin, and development of Indian Chintz Textiles.
- 2.1.5) Establishments of Global textile trade and trade routes for exports of Indian Chintz
- 2.1.6) Ancient technique and colour development
- 2.1.7) Chintz textiles design development and influencing factors

2.2) Research Review

- 2.2.1) Indian Painted and Printed Textiles
- 2.2.2) Indian textile craft revival and design intervention process.
- 2.2.3) Sustainable strategies for crafts

Review Around Subject Development

The Indian textile industry was at the heart of the Indian non-agricultural economy before the 19th century: Textile tops the list of Indian exports. In the present paper, an attempt is made to study the technological aspects of textile production in medieval India. Painting as an art form flourished in India very early, as evidenced by cave remains and documentary evidence. During the 14th and 15th centuries AD, miniature painting developed into a powerful movement in Gujarat and Rajasthan and spread to central, northern and eastern India because of patronage of rich Jain merchants. The painting was immensely motivated during the Mughal era. In Mughal courts, between 1562 and 1577, a series of about 1400 cloth paintings representing the new style was created and kept in the Imperial studio. Akbar also encouraged the art of portraiture. The art of painting reached its peak during the time of Jahangir. He was himself a great painter and art connoisseur.

Chintz textiles were made in southeast India around the Coromandel coast, with fine techniques of hand drawing, mordanting and resist using natural dyes. The technique of mordant and resist

painting was very well perfected by Indian Craftsperson during 16th and 17th Century. According to **Crill R,(2020), Indian Chintz** are the textiles that are hand painted (mordant and resist), dyed with natural dyes on cotton with “kalam”, made in India. But since these textiles were mainly made only for the purpose of export to the European markets and were very expensive for Indian markets, only the wealthiest classes could afford to buy these. This is the main reason why after the ban on their export, their production declined and gradually resulted in the extinction of this fine and perfected techniques of mordant resist painting with a variety of shades in natural dyes. Therefore only a few examples that have survived are quiet valuable today these are valuable extinct textile pieces found and restored in various museums. They were primarily exported to Europe and to Dutch colonists in Indonesia and what was then called Ceylon for exchanges of peppers and spices. Hence we face a loss of this cultural heritage which once brought Indian glory and loss of the well-mastered technique of making chintz.

The origin of the word “Palampore” may be derived from Asian /Persian word “palang – posh” meaning bed cover. A Palampore is a type of single panel of mordant hand painted and resist dyed Indian cotton(chintz), bed-cover that was made in India for the export market during the eighteenth and a very early nineteenth century around southeast Asia –Coromondal Coast. It was similar to pintado, but pintado being a length of fabric and palampore being used as bedcover. The name has confused derivation. The word "chintz" is from the Hindustani *chhint* or *chint*, derived from the Sanskrit *chitra* for spotted cloth. Chintz textiles originated in India,

Yule(1903)says Palampore is a kind of chintz bed cover, sometimes made of beautiful patterns, formerly made at various places in India, especially at sadras and Masulipatnam, the importation of which into Europe has become quite obsolete. Introduced to England in 1614 and often made into the quilts. Their Success is seen in the letter of 1687, where the East India, co. wrote to its officers. “send no more quilts of any sort we have enough to lost five/six years being put quite out of use by Palampores(Irwin & Brett 1970,p.27)Imitation of the originals were soon developed in 1948 Benoit Ganreume& Jacques Bavailles set up a cotton printing establishment in France and by 1669.After this the palampore started to decline gradually.

Irwin J, Brett,k., states Chintz were made using the kalamkari technique, whereby an artist drew designs on cotton or linen fabric with a kalam pen containing mordant and then dipped the textile in dye. The dye adhered to the cloth only where the mordant had been applied. This

lengthy process had to be repeated for each color in the design. Small details were then painted by hand on the cloth after the dying process was completed. Because a palampore was hand-created, each design is unique.

The detailed method was described in *Indian Painted and Printed textiles* by **Hall, M. and Irwin, J.** The cloth was flattened and burnished with buffalo milk and myrobolan (a dried fruit containing tannin) to give it a smooth surface. The protein in the milk probably provided bonding sites for the dyes. The pattern was drawn on paper. Holes were pierced through the paper along design lines. Powdered charcoal was rubbed on the paper to transfer the pattern to the fabric. The design outlines were painted in. Then, the entire fabric surface was coated with wax except for those areas designed to be blue or green in the finished fabric. The fabric was immersed in an indigo vat, a requirement for fast blues and greens. After immersion in indigo, the dye was oxidized in the air and the fabric was dried. The fabric was scraped and washed to remove the wax. Most of the rest of the design was achieved by painting on a combination of mordants with thickening agents followed by dipping the fabric in a madder bath. Colors achieved in this manner include orange, brown, pink, crimson, lilac, purple, and black. Washing the fabric removed most of the madder in the non-mordanted areas. The fabric was aged in the sun to remove any residual color in the non-mordanted areas and to set the color in the mordanted areas. Finally, any areas requiring yellow (including any area dyed blue that was designed to be green in the finished fabric) were painted with saffron or another yellow dye. Unfortunately, since the yellow dye had poor light fastness, most historic chintz prints have lost that component of the design

Research Review

Dua S. (2014), In order to trace the history and trade, influencing factors and ornamentation styles of printed textiles of Gujarat, Dua S. (2014) studied the tradition and evolution of ornamentation style and motif vocabulary of Gujarati printed textiles. studied the tradition and evolution of ornamentation style and motif vocabulary of Gujarati printed textiles. Ajrakh is a traditional craft that has seen a lot of work, and the researcher also stated that it was necessary at the time to expand the design directory and innovate on the craft's techniques.

Betham M and Arora Chitra (2014) in their study *Journey of Roghan Painting from Kutch, India*, The aim was to raise awareness and value of Roghan painting on fabric. This priceless

ancient craft is rapidly becoming extinct and steadily losing value. This study would advance the economic and social standing of the artisans involved and thus aid in protecting our nation's cultural heritage.

According to Kapur H and Suruchi M,(2014), efficient design intervention with a systematic approach in collaborations with various crafts agencies and governmental bodies can aid in craft revival. A very important strategy according to her is the incorporation of goal-oriented innovative ideas and newer design intervention models that can greatly contribute to reviving a craft that is in decline. The designer and the artisanal collaborative approach can bring in a new life. The co-design approach can result in more effective combination of economic, cultural, and ecological aspects into a well-accepted consumable and marketable product. This can transform the craft into a more sustainable business story.

Sengupta, R (2021) discusses the agency of kalamkari textile makers in the Coromandel region of India, who produced masterfully crafted cottons during the early modern era. These fabrics, known as 'pen work', were integral to trade networks connecting India with Asia and Europe. The author uses an interdisciplinary approach and set a search for the analysis to explore the multifaceted practice of contemporary kalamkari makers, arguing that agency is a fluid notion embodied by a series of complex processes. His sustained engagement with block makers of Pedana, dyers in Polavaram and Hyderabad, and other artisans of the Coromandel has formed the understanding of agency. Through repeating the practice of their masters and ancestors, the textile makers produce, sustain, and transform craft making. He emphasizes that kalamkari making is the practice of continuously reconfiguring artisanal subject position by signaling the entanglement of agency and bodily actions—the repository of historically informed knowledge of the craftspeople.

Garg. V and Katara.C(2017)- Transition of Phulkari traditional folk art of Punjab and its revival through artistic and expressive compromises. Traditional folk art, phulkari, from a labor-intensive, time-consuming craft to an income-generating source. Commercialization has weakened the traditional form, creating a gap between motifs and craftspeople. The study aims to preserve the traditional identity by documenting and comparing the changes made during commercialization, ensuring future embroidery practitioners can use it in its original form.

Boṭa M and Schreiber R, (2021), *Rebranding “Made in India” through cultural sustainability – exploring and expanding Indian perspectives.* This exploratory study was an attempt to

understand the sociocultural and legal environment of Indian culture by determining the values associated with Indian Traditional textile craftsmanship by the Indian Fashion industry. The level of skill displayed by Indian textile and fashion industry participants and how their viewpoint is impacted by the international recognition and perception of Indian textile crafts and connotation of India-made is stated. The study also explores the definition of "sustainability" in the context of Indian culture as it relates to textile artistry and how this compares to the Western idea of "sustainability." This study demonstrates that Cultural Sustainability is the dominant narrative in the Indian cultural setting due to the prevalence of culturally embedded sustainability practises and the combination of field research and in-depth unstructured interviews.

Chapter-3

METHODOLOGY

The methodology is the procedural format followed for conducting any research. It defines the research design, following which correctly gives an ideal solution to the predefined research questions in a systematic and scientific manner. The present research study is a descriptive historical study. It consists of a multi-methodological approach with detailed documentation of the facts from historical resources and a well-verified approach with/from the analytical study of primary data sources. This was followed by proper fact analysis through qualitative mental deduction, exploration and experimentation. Hence, the main research design follows three major phases:

3.1. Phase-1: Historical Study and Documentation

The research was conceptualized with the help of secondary data collected from the books, since the topic was from history, a variety of sources were explored. The information from secondary source was obtained as most of the literature were age-old and out of publication. The data collection from the following sources:

1. Library - Hansa Mehta Library, Vadodara, Oriental Library, Vadodara, Sayaji museum library, Vadodara, NID, Ahmedabad, Calico Museum Library, Ahmedabad, Salarjung Museum Library, Hyderabad.
2. Articles: From journal and web sources
3. Museums: Salarjung Museum, Kalamkari Museum, Pedana, Machillipatnam, Andhra Pradesh, Baroda Picture and Art Gallery, Calico Museum, Sarabhai Foundation. Prince of Wales Museum, Mumbai.

The researcher personally visited the above museums for data collection. The permissions were obtained, to use the museum archival pieces on the visit. The researcher also accessed the online archival documentation of chintz pieces from 1. Met museum 2. Victoria and Albert Museum 3. Royal Ontario Museum Collections. Since 'Chintz' was referred to as a popular trade cloth, not much evidence in the form of pieces was archived in Indian museums, hence the researcher had to access the online repository. The researcher after thorough review of literature and in-depth desk research was able to describe

- A. Origin of Chintz (Etymology, and Geography of study)
- B. Materials and Tools
- C. Technique
- D..Design

So after studying and analysing and using visual research the design characteristics with reference to the technique were used to identify Chintz textile as a unique textile.

3.1.1 Chintz Textile Trade

The timeline study was done to establish and study Chintz's trade with various countries. This information was collected and based on a review of the literature. This helped the researcher to study how Chintz being a painted textile played an important role in trade and made India popular globally. The cloth also served not only as an exchange currency but also as a means for the transfer of the socio-cultural belief system, which was based on the final utility and design. Hence, here an analytical and deductive methodology was followed, using Review of literature Visual Research and analysis with examples of chintz pieces. The results were presented in the form of a narrative. The results are discussed as

A. Pattern of Trade

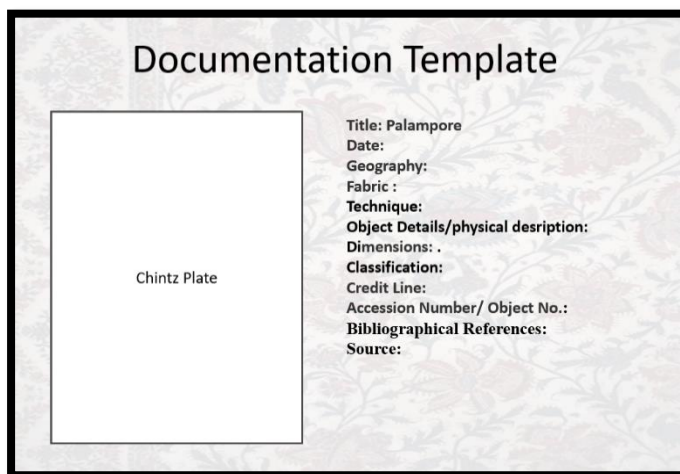
B. Design differences for different market

C. Revolutionary event globally with reference to chintz

3.1.2.1 Chintz Design Repository

From the review of literature Chintz documentation repository of seventy-nine pieces from 1650 - 1850 was prepared in the following format. (Format-1) The documentation was limited to the chintz pieces with the tree of life design only. The following template. (Format-2), shows a basic layout of tree of life Chintz pieces enumerating different design components - Flowers, Leaves, Stems Animals, Borders

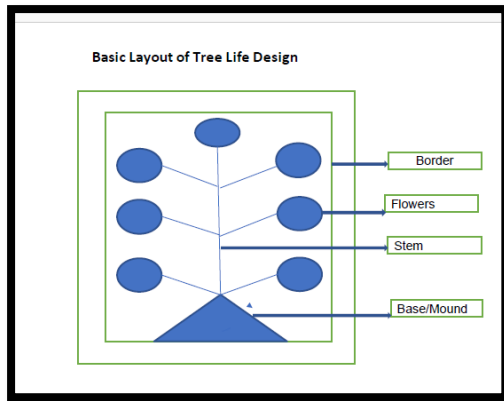
Format 1



The image shows a 'Documentation Template' for a 'Chintz Plate'. The template is set against a background of a floral pattern. On the left, there is a large white rectangular box labeled 'Chintz Plate'. To the right of this box is a list of fields for documentation, each followed by a colon:

- Title: Palampore
- Date:
- Geography:
- Fabric :
- Technique:
- Object Details/physical description:
- Dimensions: .
- Classification:
- Credit Line:
- Accession Number/ Object No.:
- Bibliographical References:
- Source:

Format 2 Basic layout of Tree of Life



3.1.2.2. Design of Chintz Era-wise

The documented chintz textile pieces were arranged from 1700 to 1850 ca. Thereafter they were further grouped into upto 1700ca, 1700 – 1750 ca, 1750 – 1800 ca, and 1800 -1850 ca.. which determines the categorization into a period of 50 years.

3.1.2.3 Analysis of Chintz Design

A total sample of 20 designs were selected by purposive stratified sampling technique for design study, and analysis. Five samples from each category (design classified according to time period) was selected to make a total sample of 20. The selected Chintz pieces were studied mainly for their layout and patterns and analysed by observation and supported by visual research and documented literature. Here, the design study was limited to the documented pieces. Only the details study and Iconography was mainly done with reflections on the visual observation by the researcher for a few commonly used motives. (Flowers and tree of life). The following template was used to study each piece's design anatomy and components.

Format 3

Design No.:	Market:	Design Components:					
Time:	Colours:	Border	Base Description	Flowers	Leaves	Stem	Animals
Chintz Artefact							
Design Layout	Details from Literature:			Description:			

3.1.2.4 Evolution of Basic Design Components in Chintz

Each piece was further studied with reference to how there is evolution of following design components. Their types, arrangements, drawing forms, placement and rendering with painted details were studied.

1) Flowers 2) Leaves 3) Stems 4) Animals. 5) Borders

3.2. Phase -2 Experimentation for Chintz Technique and Revival

The researcher after thorough review observed that the technique had a close resemblance to the kalamkari of the present day and from the review it was evident, that after the extinction in 1800 ca., the hand painting with kalam with natural dyes was observed in present kalamkari technique.

Hence, to obtain information about the existing technique investigator interacted with master crafts persons involved in the execution of hand painting kalamkari styles:

So for this, case study following a purposive sampling method was done. The samples comprised of well-known masters craft persons, who were willing to participate namely

- Sri- Pitchiku Srinivasan, in making the Masulipatnam Style of kalamkari.
- Veesha Gunashankar artisans practising Sri-kalahasti form of Kalamkari.
- Chandrakant Chitara, Kiran Chitara, Vishal Chitara, Kirit Chitara and Vasant Chitara are well-known names practicing Mata-ni-pachedi form of kalamkari.

The data was collected by means of personal visits, telephonic interviews, informal interactions and audio-visual documentation. This helped the researcher understand the present materials, tools and conditions for experimentation.

This section was completely experimental approach for research was followed. It mainly involved the following steps

3.2.1. The documentation and study of Chintz technique.

The researcher studied different literature documented for chintz technique. These were mainly the travel records and documents which were prepared by different foreign travellers.

3.2.2. Training for understanding the technique

The researcher underwent two trainings to understand the mordant and resist painting with kalam in-depth

A. Training at Weavers Service Centre

B. Kalamkari Training from Artisan

3.2.3. Experimentation for Chintz re-creation

A. Exploration with Natural Dyes

B. Exploration with Kalamkari

C. Exploring Tools and Material- Kalam, Natural Dyes, Resist

D. Re-creation of the Chintz Design with Artisanal Collaboration

Researcher collaborated with kalamkari artisans. The researcher selected four Chintz designs with tree of life using purposive sampling. Three motifs from each design were selected, making a total sample of 12, and were digitally modified and used for re-creation. Purposive sampling technique was used for the same. The process of re-creation with artisanal collaboration was done. This resulted

1. Development of a single motif (12 motifs)
2. A Chintz Wall Piece

3.3 Phase 3 Development of Craft Sustenance Model – Craft training Creating craft awareness, and Market development.

3.3.1 SWOC Analysis

SWOC analysis of chintz was done with reference to the design, market, and technique, this helped the investigator to have a better idea to understand Chintz with reference to its design, technique and market. With these parameters, how shall fit in the present context.

3.3.2 Craft Training

A detailed training was designed with a training module for future designers. Three-level training was provided to the group.

The basic level module aims to train the students, about chintz as a textile craft, interpreting the chintz motif for painting and and practically creating on textile. The second level module trains in the development of a more complex motif with more intricate designs. While for third-level training involved students training by the researcher in collaboration with an artisan. This would further train students to understand the finer aspects and nuances of painting technique.

A training module was developed keeping in mind the following objectives:

1. To educate the students regarding the motif and design vocabulary of chintz.
2. To facilitate the students to create the chintz samplers using the kalamkari technique.

The training module was administered to the fashion design students. They were briefed about chintz, with design details and motif configuration. Presentation, discussion methods, and live demonstration methods, with practical hands-on experience methods were used. This helped in broadening their mindset on chintz design development and techniques. The effectiveness of training was measured by post and pre-analysis.

3.3.3 Creating craft awareness

A. Social Media

In order to make people aware of chintz, social media was used. For this purpose, a Facebook page, Instagram page and a blog were created. The social media content was developed and regularly updated to create awareness regarding this textile and craft among people. Several articles and posts were regularly shared and dissemination of resource material about Chintz, to create awareness.

B. Exhibition

An exhibition is planned to create awareness and for craft promotion.

3.3.4 Market development

A. Chintz Design Development.

The researcher studied design configurations of different chintz artifacts made in history. The main aim for designing the products was to create the market for chintz products in present times.

B. Product Designing Development

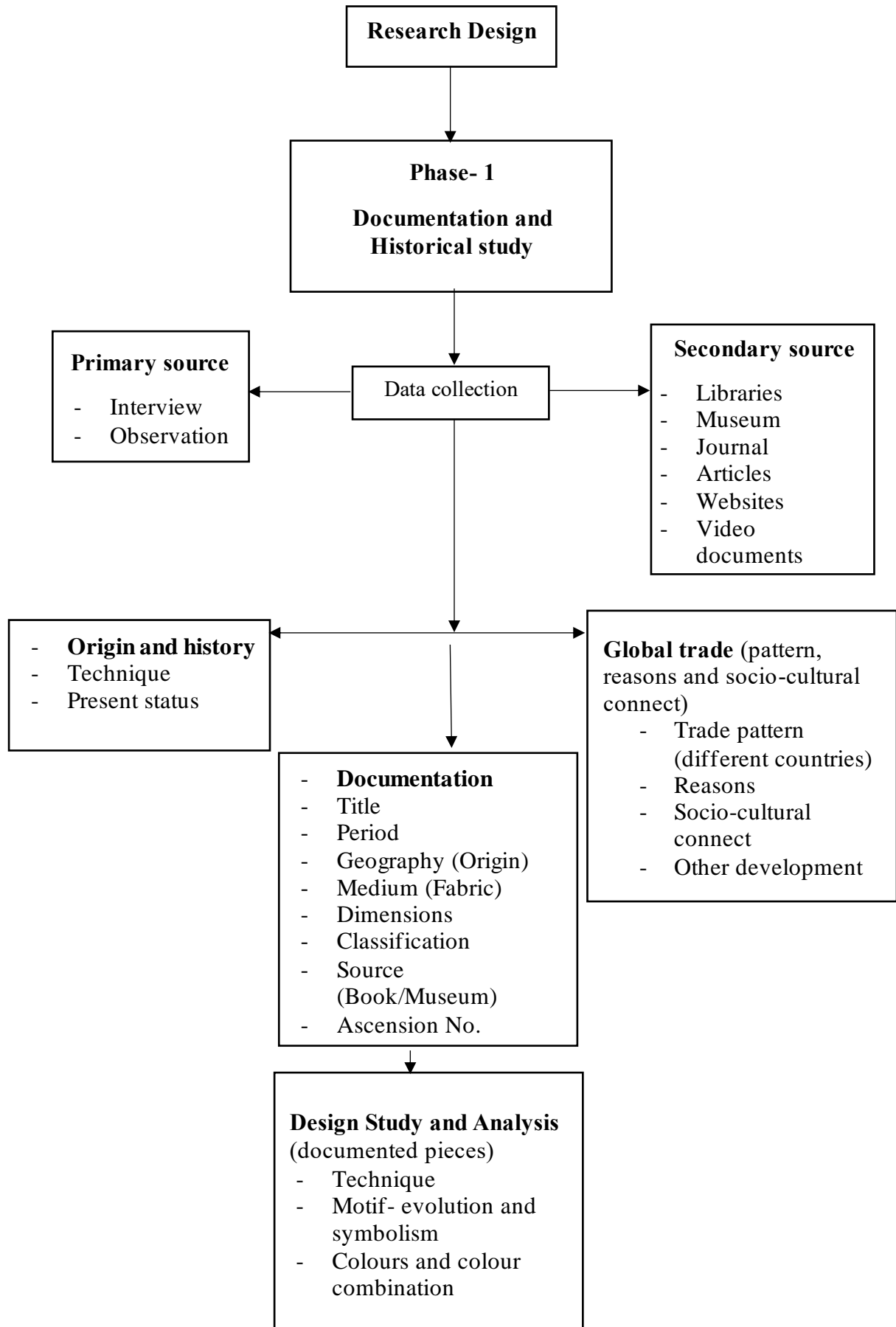
The researcher selected the products which would minimize the cost in making and the consumer would value the usage according to the craft value of Chintz. The cost of each product designed was estimated. The newly trained group and collaborated artisans shall be making chintz paintings for product development.

C. Brand Development

A brand for chintz artifacts was created. The main aim was to create the market for the chintz product.

D. E-tailing

A website will be created for e-tailing of chintz products.



Phase-2
Chintz Experimentation and Revival

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graph TD; A[Phase-2 Chintz Experimentation and Revival] --> B[Research Training]; B --> C[Experimentation]; C --> D[Craft Revival];
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Research Training

- Weavers Service Center
- Collaboration with kalamkari master Craftsmen

Experimentation

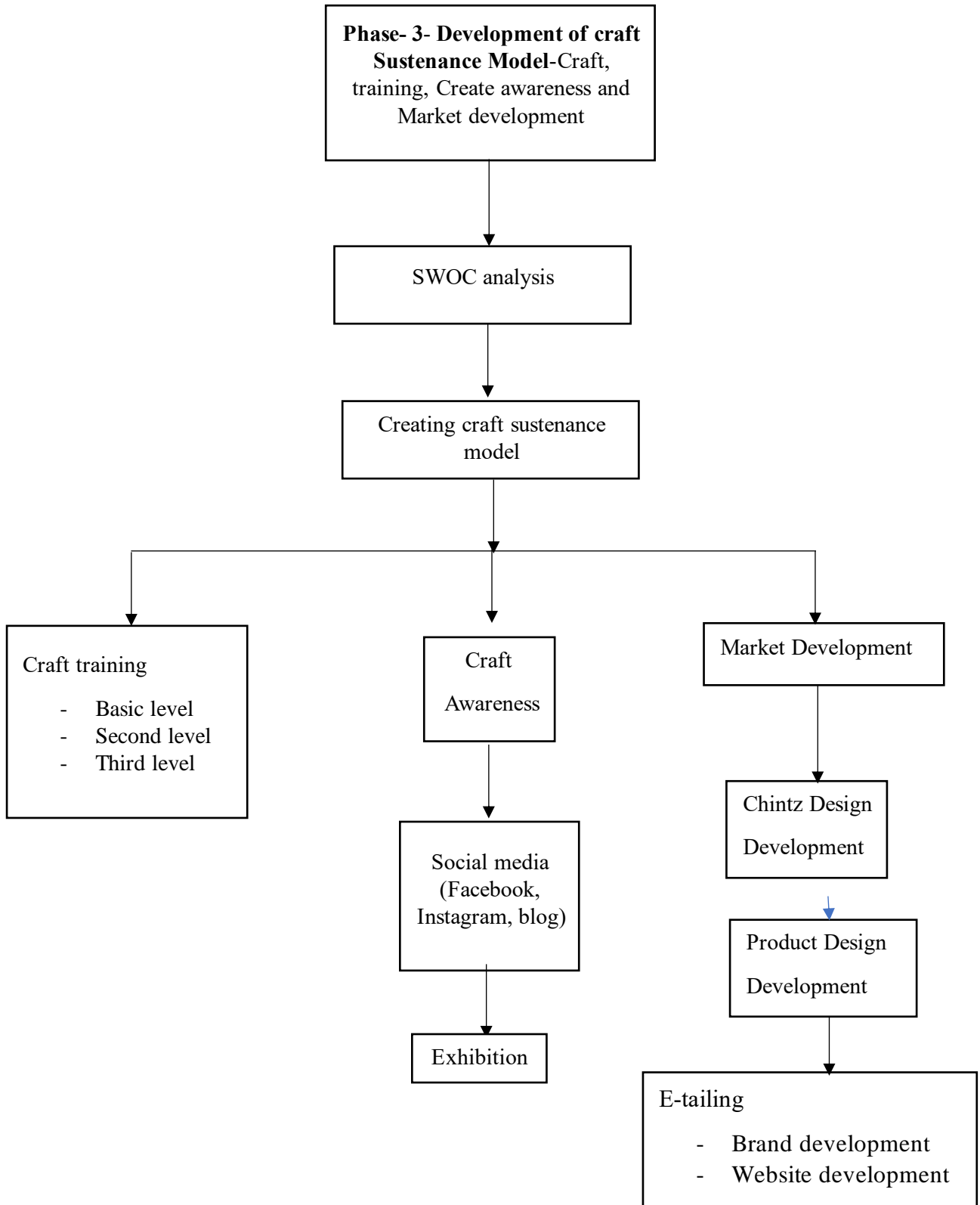
In collaboration with artisan (co-design approach)

- Shade development with painting methods (Natural dyes)
- Resist explorations
- Mordant and resist painting with natural dyes
- Exploring Tools

Craft Revival

Development of small samples (a few museums pieces replica)

- Stepwise Chintz Technique
- Motif Development
- Chintz Wall Piece



RESULTS AND DISCUSSION

4.1 Historical Study and Documentation

4.1.1 History (Origin, Design, Material and Tools, Technique of Chintz Making)

4.1.1.1 Origin of Chintz

The Indian Chintz, traditionally known as Coromandel Chintz, made history due to its popularity worldwide. It was popular globally and played a very important role in Indian trade from the 15th to 18th century (Crill. R). These textiles were in great demand because, of the technology of cotton weaving spinning, and design painting with natural dyes. The technique was only mastered by Indians at that point in time (1971, John .I, Hall. M) The word "chintz" is derived from the Hindustani word "*chhint*" or "*chint*", for spotted cloth. Later the word "*Chintes*", "*Chindeys*" or "*Cheetes*" (derived from the Hindi word Chint meaning variegated or speckled) were used to this painted cloth. There were many name derivations to this textile being associated as per the market for which it was made or for the specific product. The etymology associated consisted of *pintadoes* by Portuguese, *sitz* by Dutch, *Sarasa* by Japanese, *Chinoiseries* by Chinese, *Kalamkari* in Iran. Later the word *Palampore* evolved which was derived from the hindi-persian hybrid *Palang-Posh* meaning a bed cover The initial use of Chintz fabric was for canopies, later on, floor spreads, wall hangings and bed sheets lately as fashion fabrics for garments. Since the seventeenth century, the term Indian chintz has been used for Indian cotton cloth with a floral style of decoration developed by hand drawing and dyeing with mordants and resists. (Crill R)

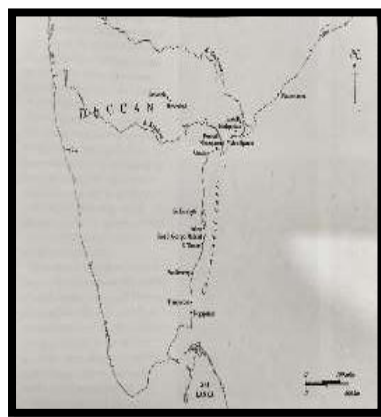


Figure-1.

Ancient Indian Map-

Source: Crill R,(2015) "Fabrics OF India" V & A Publication

4.1.1.2 Design

Indian Chintz have exotic patterns of fruits, birds, flowers and wildlife mainly in the form of tree of life. It mainly features design patterns in different colors, typically on a light background. Order in chaos was the fundamental principle in design

4.1.1.3 Material and Tools

The very essential material was the base fabric used in the chintz painting. A hand-spun and woven cotton fabric with a very fine count with a smooth surface finish achieved by beetling were of utmost essential for these textiles. Indian spinners and weavers were master craftsmen in the production of the finest cotton dating back to 3500-2000 BCE. The well-perfected knowledge of mordant painting with the right combination of natural dyes enabled the dyer to produce a wide array of colors using natural materials, which were inherent to the local habitat. Various natural materials used were myrobalan, lac, madder, turmeric, and indigo, resulting in the development of a wide array of color development, which imparted awestruck beauty with excellent light and color fastness.

The right combination of beeswax with certain animal fats resulted in the achievement of fine lines for the development of wax resist. The major tool being used was a pen made of bamboo called “kalam” or Qalam. These were designed specifically for three uses. First solely for painting the outline, for this, a simple bamboo stick was sharpened or split-tipped, which resulted in a point used for creating a sharp outline. The bamboo stick was often padded with a sponge and wadding of cloth secured by a cotton thread. This bulb So created holds the excess paint. Being porous in nature it acts as a reservoir for excess ink, which was released on the pressing. This tool was used for filling up the color. The other one was made up of metal, which was used for wax application. *Figure 2* describes the detailed structures of different types of kalam. There were even block-makers who carved blocks. These were used for creating an inferior variety of chintz textiles, where the outlines were printed using blocks. (Irwin.J)

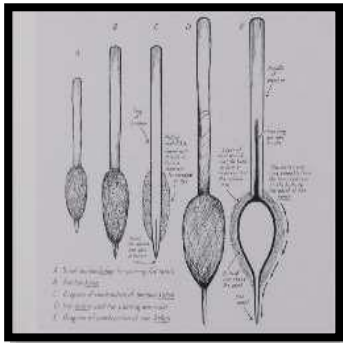


Figure 2-Types of Kalam

Source: Kalamkari Museum Pedana

Source: Journal of Textile History, No.1 (2nd Edition), Ahmedabad: Calico Museum of Textiles

4.1.1.4 Technique of Chintz Making

Employing the kalamkari technique, an artist painted the motifs on cotton or linen fabric using a special painting and dyeing technique, with a unique tool referred to as “[kalam](#)” a bamboo pen with a bulb at front, containing mordant and then processed the textile in natural dye. The areas painted with the mordants resulted in colour development due to dye adherence (**W.S.Hadaway**). The main characteristic feature of this technique was hand-painting and multi-color and hence dyeing in stages became an inherent part of the process making it laborious and elaborate. dyeing. The detailed procedure follows- the cloth was flattened and burnished with buffalo milk and myrobolan (a dried fruit containing tannin) to give it a smooth surface. The milk proteins on the fabric formed sites for chemical bonding for the natural dyes. The design patterns were either traced or freehand drawn using burnt tamarind twigs or charcoal. Then the design outlines were painted with mordants, iron oxide was used for the black outline while alum mordant tinted with Sapan wood was used for

The red color. Then the fabric was allowed to dry in sunlight and boiled in water that contained *chayroot*. This resulted in the development of black and red colors in respective areas. Next stage was dyeing with blue, for this the entire fabric was covered with wax except for areas to be colored with blue. Then the indigo vat was developed, and the entire fabric was immersed in the vat to dye the blue, later the area was oxidized to achieve.

There were several literature references made and the following steps were documented for making the Chintz process and technique.

- a. Schwartz P. “The Roques Manuscript of 1678 of the painters and painting of chittes “pg 5- 28, Printing and Painting on cotton at Ahmedabad India 1678, Calico Museum of Textiles, Museum Monograph No.1
- b. Schwartz P. “French Document on Indian cotton painting (Part –II):New light on old material”, pp 15 -44
- c. The Roxburgh Account of Indian Cotton Painting (4)Foreign Influences pp 47-56
- d. Schwartz P. French Document on Indian Cotton Painting – The Beaulieu MS, c.1734 , pp 5-23
- e. Father Coeurdoux letter on the technique of Indian Cotton Painting 1742 and 1747

After a thorough study following were the steps documented as per the literature .

The following diagram demonstrates the steps in chintz making technique as given by **W.S. Hadaway, V & A Museum: T.1A-G-1920 as documented in Crill R, (2008) “Fabrics Of India”V & A Publication. India”V & A Publication.**



Figure-3: Steps Showing Chintz Process

Given by W. S. Hadaway,

V&A:T.1A-G-1920 Source: Crill R,(2008) “Fabrics OF India” V & A Publication

4.1.2 Global Chintz Trade

Chintz textiles and technique originated in India, around Southeast Asia –Coromandel Coast. These textiles were hand painted by applying mordant using, a bamboo pen referred to as kalam, and are resist dyeing technique on cotton fabrics. The early European merchants were awestruck by the design brilliance and the color fastness produced by the combination of mordant and dyes on Indian painted textiles. In 1611, the English founded a

trading settlement in Masulipatnam on the Coromandel coast of south India followed by Dutch in 1614 and the French in 1690. These textiles were made mainly for export to various countries. It mainly served as an exchange currency and were traded globally for various commodities. It played a very important role in establishing trade and relations with different countries around the globe. These were mainly exported to many countries like Portuguese, Dutch, Indonesia, China, Thailand, Japan, Sri Lanka, Africa, and many more. These, due to their intricate design, and unique and exclusive hand-painted and printed craftsmanship established a rich cultural identity and fame for India. These were mainly used as an exchange currency and were traded to European and Indonesian markets for the exchange of spices. (**Roy T. & Riello G.**)

4.1.3 Chintz Development with Respect to Different Markets

Chintz were prepared as per the design specification and use subjected to in every country. Every country had a different array of design characters, according to their socio-cultural influence and the usage it was subjected to. It was observed that these textiles were subjected to a variety of usage and had a significant role to play in each country. The design transmogrification according to the socio-cultural influence and usage was done here.

Vast quantities of hand-drawn or printed chintz were made in India, Indonesia, and Europe was imported into Japan, where they were called Sarasa. These were also used for tea ceremonies in Japan. These were too expensive for ordinary people. Hence Japanese people tried to experiment their making and discovered Wazarasa textiles they used pigment, (sapwood) and stencil dyeing was employed in Japan. Indian chintz were also exported by the Dutch East India Company (VOC) in 17th Century. Designs characteristics. They found the designs created were not appealing to the Western market, hence they sent out design musters, which were interpreted by the artisans according to their own imagination, this led to the development of a beautiful design with cross-cultural amalgamation.

Chintz were exported to Iranian countries also. These were mainly used as prayer mats, The tree of life was adopted as Cyprus cone and mainly had a mihrab- a spiritual gateway, inspired from the architecture. It had Islamic influence with buttas and Paisley motif. India begun to export to European countries for about more than 100 years (Portugal, Britain, France). Initially used as furnishing Fabric .and then as a high fashion fabric around, by 1650-it first emerged as a Women's fashion, then men's fashion and then fashion began amongst the maids and children. These were mainly made with tree-of-life designs and flowering tree.

4.2 Chintz Textile Documentation

Since the chintz textiles were completely extinct, and most of the textiles were made for foreign exports. There were not many textile pieces found in the Indian archives of the museums. There were only one wall hanging and a few costume artifacts observed at Calico Museum and a few in the Tapi collection. Hence a documentation of eighty textiles was done from various books.

4.2.1 Design Study Era wise

These could be used for academic purposes. There is a detailed document of the Chintz textiles documentation attached (Chintz Documentation 1700,1700-50,1750-1800,1800-1850)

The documented chintz pieces after classification era-wise, a stratified purposive sampling method was adopted to study the design anatomy and configuration in detail. A detailed design analysis was carried out for each chintz artefact to understand the design components in details. The following are the inferences and discussion for the same.

Development of Chintz Era wise (Tree of life)

Late Seventeenth Century (Before and up to 1700 ca)

These are resists and mordant painted textiles with natural dyes. This technique was known for ages and developed in India as the finest craft before 1700 ca. They were mainly used as sacred and religious textiles. The forms drawn were mainly figurative, with human and animal motifs. Mainly these had illustrative stories and narratives depicted in the form of wars or ceremonial clothes.

Early and Late Eighteenth Century (1700 ca- 1800 ca)

The earliest literature remarks that now these fabrics were illustrated in floral design. With the European traders coming in for business establishment and establishment of VOC. They were amazed by the technique and there was literature evidence stating that a lot of these were exported around these times. Since the artist was adopted the indigenous essence in designs, which was not too much appreciated by the European tastes, hence floral design musters were sent to be re-created by these artisans from Europe. Now, this Artisan interpreted the design exaggerating them creating an abstract version of the same.

The main characteristics features around this time were

1. They very tree of life with exaggerated floral designs. Each floral Design has very intricate detailing in white created with the use of resists
2. The leaves and floral foliage and leaves also had a lot of detail which was done using the white resist

3. Even the mounds had a lot of detailing with white resist.

In general, all the motifs were intricately detailed creating the texture using dots and spirals and other forms with the use of resists

Early Nineteenth Century (1800 ca-1850 ca)

The Chintz pieces around and after 1800 ca. were extremely fine in design detailing and pattern details. This was mainly achieved by direct mordant painting, but the white design details in the motif created with resist painting, was sparingly used and is observed to be declined after 1800 ca. After 1800ca., it was only mordant painting used. The usage of blocks was also observed in making. The design had a lot of Persian influences and was mainly characterized by symmetry on two sides mainly balanced by different forms of animals (peacocks) placed on mounds.

4.2.2 Design Anatomy Study

A detailed design study was done with reference to the general arrangement, layout and colour combination, rendering of motifs. Design anatomy for each component of design was studied .

4.2.3 Design Genesis of Design Components

The detailed Design genesis was discussed era-wise for the following design components- Flowers, stem, leaves, mound, animals and the tree of life. The significance and symbolism were also studied

4.3 Experimentation For Craft Revival

Since the technique was kalamkari, the process of three existing styles of Kalamkari were documented by means of case study. The detailed study of the existing design style and technique was documented as follows

- 1.Sri-kalahasti Style of Kalamkari
- 2.Machilipatnam style of kalamkari
- 3.Matani-pachedi Style of kalamkari

Analysis and Understanding of the Chintz technique, tools, material and conditions was done.

A. Training At Weavers Service Centre

To understand the process of natural dyeing and painting the researcher undertook a 15 days training at Weavers Service Centre, Ahmedabad. To understand and explore the technique of painting with natural dyes. The training was exhaustive, where the researcher learnt about the chemistry of natural dyes, colour development and the exact methods handling the natural dyes for painting process.



Figure-4 : Researcher Experimenting the Natural dye chemistry for colour development and Painting technique

B. Researchers Training from Artisan and Collaboration for Craft Revival

The researcher collaborated and undertook training from Kalamakari artisans. These artisans have fine skills in painting with natural dyes. The researcher was trained with them. Later four designs with tree of life and three motifs were digitally modified and used for re-creation from each piece. Purposive sampling techniques were used for the same.

The process of re-creation with artisanal collaboration was done. An in-depth exploration of painting with natural dyes using red, black, green, yellow, and blue was done for motif development. The different types of tools were explored for painting various details. Resist application explorations were also done.

Tools and Materials

Various tools used for chintz making were studied and are explained and listed below.

1.Kalam- Various types of kalam are used ranging from fine tip painted, to broad one used for colour filling, even for wax application a special metal type of kalam was to be used.

The **figure 2** shows a wooden beater for block printing and a scale for measuring.

Other tools used were tools for wax application which comprised of a metal kalam. Different types were explored.



Figure 5- a. Types of kalam b. Scale and block beater c. Tjanting for wax application

2. Fabric Used

Base Fabric- Fine weave handspun and handwoven cotton fabric was used for painting. A plain woven fabric with a count of 80s to 100s. which is free of any kind of bleaching or finishing agent was used for the process.

3. Natural Dyes

Madder root, Lac, and alizarin for red, Iron rust for black, Indigo for blue and turmeric for yellow. Alum was used as a mordanting agent for painting technique and harda for mordanting the entire fabric.



Figure-6- Artisanal Collaboration

Later on, following the stepwise process re-creation of the selected samples was done by the combined effort of the researcher and the artisan. (Figure7).

Further the selected samples were recreated for the original chintz motif as the outcome for the revival of the study. The figure 8 demonstrates the close resemblance of the re-created painted pieces with the original piece of art created by the artisans of the seventeenth century.

The stepwise creation for the Chintz technique was developed

Various steps for chintz-making are

1. The fabric was **washed** and boiled in buffalo's milk with tanin (Myrobalan treatment)
2. After drying the fabric, the design was **drawn** using iron mordant (black colour) and alum mordant (red colour) using a bamboo brush /kalam.
3. Then cloth was soaked in red **dye** called as Chay (root) to produce respective colors.
4. Then it was **rinsed** and **bleached** (cow dung) to remove tanins.
5. Wax was applied as **resist** in areas required not to appear blue.
6. After dyeing in blue dye the wax is removed by boiling and background was either dyed in yellow or green



Figure- 7: Steps in Chintz making



Figure-8: Revived samples

The study fulfilled the major objective of meeting up with the revival of chintz textile technique successfully with the artisanal collaboration. The materials, tools and techniques were explored thoroughly for fabric painting with natural dyes. The perfect color and design development with the original and created, shows clear evidence of re-creation. The major reason for the artisanal collaboration was the mastery of the painting skill that our indigenous artisan possesses.

4.4 Phase -3 Craft Sustenance Model-Creating Awareness, Training, and Market Development

Chintz as textile was very popular in historical times, and with craze and this amount of market and demand. Now it happened to be extinct at one point in time. To an extent that people few years back were not even aware of its existence. In order to develop a sustainable future and determine the feasibility of craft a detailed SWOC Analysis of Chintz with respect to its design, market and technique was done. This shall help the researcher to determine and formulate and design a successful craft substance environment. The SWOC analysis is given below

4.4.1 SWOC Analysis

In order to develop a sustainable future and determine the feasibility of craft a detailed SWOC Analysis of Chintz with respect to its design, market, and technique was done.

4.4.2 Craft Training

The researcher interacted with various artisans, and discovered that the artisans were reluctant to continuously engage and practice the craft due to their unwillingness to try something new and their economic conditions. The researcher decided to identify a new group of 36 students who had an interest in the craft, and, who would take a responsible role in taking this heritage of knowledge ahead. Hence an enthusiastic group of students were identified and trained for chintz making at three levels. Hence the researcher trained a group of thirty-six students at three levels. Basic level, Second level, and the Third level of Chintz-making training. The training was designed with a gradual progression. The training manual was developed for the same. The pre and post-analysis for evaluation of training efficiency was done.

A. Basic Level Training

The Basic training was gradual beginning with a basic introduction to chintz and the process of natural dyes. Later there was a progressive introduction to the painting technique and the finer nuances to create the entire painting. The sample was limited to only to a single motif creation with few details.

B. The Second level Training

The Second level training was a step ahead where the group was introduced with design interpretation of motifs, resist painting in fine areas, and being able to maintain a neatness

C. The Third Level Training

The Third level workshop was given to the group with artisanal collaboration ,where a national award winner kalamakari artisan was called for. Here students further perfected their skill in painting and resist application and worked on a very detailed piece.



Figure-9: Basic Level training



Figure-10: Second Level training



Figure-11 Third Level Training

4.4.3 Creating Craft Awareness

A. Social Media

Since this craft was completely extinct for more than a hundred years, not many people were aware of its existence. So the researcher took it as a research initiative to make people aware of this craft. To create awareness about chintz to general people and future design students. For creating craft awareness social media platform was used. An Instagram and Facebook page account and a blog was created by a name of, “Chintz Narratives”. It was repeatedly furnished with post to create awareness. This has helped to tap the public interest initially.

B. Exhibition of Chintz

An exhibition was planned to further create awareness and develop consumer for chintz products

4.4.4 Market Development- Chintz Design Development, Product Development, E-marketing

A. Chintz Design Development

Design Development was done for chintz painting according to present taste.

B. Product Development

The researcher selected the product categories, which the consumer would value the usage according to the craft value of chintz. For chintz painting on the product the trained group and collaborated artisans are involved to generate employability.

C. Development of Market- Brand Development and E-tailing

To develop a market the researcher has created a brand and an e-commerce website. The brand name created was called as Chintz Studios. This website was promoted by the social media.

Conclusion

The study reveals an interesting array of results. It has helped us understand Chintz as a unique hand painting technique achieved by mordant and resist painting on cotton using natural dyes. The historical study offered the facts into its origin in India, its importance as trade goods. The chintz trade enumerated how design vocabulary and uses changed from one country to another. Like in Thailand it was used in royal courts and was used to mark the social status. While in Japan it was used for tea ceremony and had Buddhist influence. The replication of chintz technique due to its popularity, led to inception of many other forms of crafts. It was so popular and expensive that people would smuggle the fabric inspite of ban, European designers replicated Indian designs. All this led to making the chintz responsible for fetching India's glorious global popularity and identity on the world's map in the past. The chintz textile designs have a unique characteristic with an array of all-over designs with a lot of components like flowers, leaves, stems, animals, mounds, and borders. Hence offering a rich repository of design. A variety of flowers like rose, tulips, chrysanthemums, marigold were interestingly used. Each motif, for example, rose was enumerated in many ways like it evolved from a simple circular representation to more figured and naturalistic form. Each motif was detailed with minute intricate details achieved by fine mordant and resist painting. There not more than 2 or 3 colours used in the entire piece with tint and shades. There are tonal variations achieved in a single color (on a single motif) and interesting design contrast created by the colored and color-devoid areas, creating minute rendering effects in a motif. Hence this character of design achieved by this technique offers an interesting uniqueness and identity. The researcher's training and artisanal collaboration aided in exploring the alternating materials, tools, techniques, conditions and skills, which helped revive the craft successfully. SWOC analysis revealed that many kalamkari artisans did not demonstrate a fair interest in practicing this craft. The research was successfully able to train and create a new group of students (Future designers) in chintz-making skills at three level. This seemed to be a very promising and enthusiastic group of new designers who were sensitized at a very early stage and carry it forward. The training resulted in the development 13 Kalamkari pieces. An effort was made towards design and product development with chintz design. For creating

craft awareness social media offered a huge success with 100 followers. An exhibition, brand development, and website are being developed for chintz textile products and for their e-tailing to create awareness and popularity. This will also help in the generation of employment to the newly trained group and the kalamkari artisans and for developing a sustainable future for the revived chintz craft.

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