

Recreating Shibori Patterns for Designing Handmade Books

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Abstract: *Shibori is a traditional Japanese resist-dyeing technique that dates back over a thousand years. The paper details on the history, types and process involved in making shibori and adding a twist by designing covers for handmade books using motifs derived from the shibori techniques. The word "shibori" comes from the Japanese word "shiboru," meaning "to wring, squeeze, or press." The art of shibori involves manipulating fabric through folding, twisting, stitching, or binding before dyeing it. The bound areas resist the dye, resulting in unique patterns and designs. Shibori techniques vary widely, with popular methods including Kanoko (tie-dye), Arashi (pole-wrapping), Itajime (clamp-resist), and Kumo (pleating and binding). Applying Shibori, the ancient Japanese art of fabric dyeing, to handmade book covers elevates the concept of book design to a realm of exquisite craftsmanship. Each book becomes a one-of-a-kind piece, bearing the marks of the artisan's careful hands, making the act of reading a truly immersive and tactile journey.*

Keywords: Shibori, Resist Dyeing, Handmade books, Kanoko, Arashi, Itajime, Kumo

1. Introduction: Art of Shibori

Shibori is a traditional Japanese resist dyeing technique that involves manipulating fabric before dyeing to create intricate patterns. The word "shibori" comes from the Japanese word "shiboru," which means "to wring, squeeze, or press." As name suggests, artisans employ various techniques such as stitching, pleating, pinching, wrapping, rolling, twisting, knotting, or crumpling to create unique designs (Figure 1) [1]. The fabric is then bound using thread

or string, forming small, continuous knots or ties. These bound areas act as 'wall to resist', preventing the dye from penetrating during the dyeing process (Figure 2). Once prepared and bound, the fabric is immersed in a dye bath or has the dye directly applied to it. The fabric absorbs the dye, except for the tightly bound areas. After dyeing, the fabric is rinsed, and the ties are removed, revealing distinct dotted patterns created by the bounded sections that are an amalgamation of patterns, designs and motifs that are one of a kind. [2]



Figure 1: Shibori dyed Textiles [3]

Each shibori piece is unique, as the resist-dyeing process creates unpredictable patterns and variations. This individuality and "imperfection" are highly valued in shibori, emphasizing the handcrafted nature of the art form. The craft has a rich cultural significance in Japan, with historical roots in kimono-making and other traditional textiles. It is often associated with Japanese festivals, ceremonies, and traditional garments [4]. While shibori is most closely associated with Japan, similar resist-dyeing techniques can be found in other parts of the world in

different names, as in India (Bandhani, Tie dye, Ikat), Indonesia (Batik), West Africa (Adire of Nigeria) and South America. Blaudruck is another resist-dye technique characterized by a white pattern on an indigo blue background. Certainly, shibori stands as a testament to the enduring legacy of Japanese craftsmanship, preserving its rich cultural heritage that has been passed through generations which the modern-day artists and designers are exploring for widening its spectrum.



Figure 2: Dots guiding for shibori dyeing and the step-by-step process [5]

History of Shibori

As quoted by Yoshiko Iwamoto Wada, Renowned textile artist and shibori expert, founder of World Shibori Network, "Shibori is a dance between the control of technique and the serendipity of the dye". It is one of Japan's oldest indigo dyeing methods, has a history that dates back approximately

1300 years. Its exact origins are challenging to pinpoint due to its widespread practice across different cultures throughout history. However, there are evidences that portray shibori originated in Japan and through cultural exchange and trade routes it got transcended into China.



Figure 3: Narumi Women making Shibori (1845) and City of Narumi

Courtesy of Postal Museum of Japan

- History of shibori narration begins with the Nara period in Japan (710-794) where shibori techniques began to emerge and gain popularity. It was during this time that early forms of shibori such as Mokume and Arashi shibori were developed and used to create decorative textiles for garments, accessories and ceremonial purposes (Figure 3). The Nara period marked an important era in the development and refinement of shibori techniques in Japan.
- Subsequently, during the Heian Period (794-1185) shibori techniques continued to evolve, and new methods like Itajime (clamp-resist) and Tsujigahana (intricate patterning) gained popularity. Shibori became deeply intertwined with Japanese textile traditions and in creating intricate patterns on silk garments, particularly kimonos, which held great value among the aristocracy.
- During the Muromachi Period (1336-1573), shibori became more refined and intricate, with the development of techniques like Kumo shibori (spiderweb) and in costumes for Noh theatre (traditional Japanese art form blending drama, dance, and music).
- The availability of indigo dye and advancements in dyeing methods further contributed to shibori's popularity.
- Edo Period (1603-1868), had seen shibori production expand significantly, and Shibori dyeing gained mainstream traction in Japan, particularly in Arimatsu, a district in Nagoya. Arimatsu became a key center for shibori, showcasing the diverse range of dyeing methods that originated four centuries ago (Figure 4). Shibori garments were worn by commoners and farmers, associated with rural and working-class aesthetics.
- In the Meiji Period (1868-1912), shibori faced challenges with the advent of industrialization and the decline of traditional crafts across the world, as an aftermath of the introduction of cheaper, machine-produced textiles. Shibori permeated the lives of commoners and found its way into various contexts, including household textiles like futon covers and doorway curtains. It revitalized old, faded, stained, or damaged clothes and became widely used among lower social classes who were restricted from wearing extravagant garments. [6-8]

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- In the 20th century, shibori experienced a revival and gained recognition as a form of artistic expression.

Artists like Itchiku Kubota brought new innovations to shibori, such as the use of stitch-resist techniques.



Figure 4: Suruga Street (Japan) during the Edo period [9]
Courtesy of Postal Museum of Japan

Raw materials used in Shibori

Shibori involves many hands to get the process done. The pattern is first drawn in real size, designed and engraved by the craftsman who uses a special kind of pick and hammer to chisel out the pattern on a large sheet made of plastic or paper. After this, dyeing process is initiated. Large brushes are used and the craftsman brushes over the pattern onto the massive sheets of cloth. The next step is stitching which is done predominantly by women [10]. They stitch in string using various permutation and combinations to achieve different pattern with the dye. After this, the cloth is dyed and stitches are removed to unveil the pattern. The detailed information about each of the raw materials are as below

- Tsuyukusa dye:** In the conventional method of design transfer for embroidery, a small pouch containing a mixture of powdered chalk and kerosene will be rubbed over the perforated butter paper with design outlines as holes. As the chalk dust is rubbed over the design paper, the chalk will help in design transfer onto the fabric. In shibori, Tsuyukusa dye and washi paper are used for design transfer. The tsuyukusa flowers are wrapped in a Japanese paper which is then soaked, dried and drained in water resulting in the blue dye. This dye is applied over the design on the Japanese washi paper and through the holes in the paper, the dye penetrates and design is transferred from the paper to the fabric. (Figure 5) [11]



Figure 5: Drawing the pattern, tracing of the design and application of blue dye [3, 13, 20]

b) **Japanese Washi paper:** Water resist Japanese washi paper is used covered with astringent is used for shibori considering its strength, flexibility, and dye-absorbing capacity. When applying Tsuyukusa dye on Washi, the paper is often folded, twisted, bound, or stitched before dye application. As the dye permeates the exposed areas while being blocked by the folded or bound sections, distinct patterns and captivating color variations emerge on the Washi paper. This interplay of technique, dye,

and paper contributes to the unique beauty of Shibori [12].

c) **Fabric selection:** Silk, hemp, and later cotton were the primary fabrics used and the preparation starts with washing the fabrics thoroughly. It is then folded, pleated, twisted, stitched, or bound using various techniques to create specific patterns. The fabric is then immersed in a dye bath or directly treated with dye, depending on the desired effect.



Figure 6: Tying the shibori pattern using thread, needle clamp and final pattern [3, 13]

d) **Binding and tying materials** are such as cotton thread, silk thread or a thin string that can be used to create distinctive patterns (Figure 6). As a standard procedure the thread is revolved around the dot, for nine times to ensure stern blocking of the dye penetration. A kimono with approximately 1500 dots may take up to two years to be completed. Needles are essential for stitching techniques like Nui Shibori, while clamps or wooden blocks secure folded fabric in Itajime Shibori. Arashi Shibori involves wrapping fabric around a tall pole made of PVC or bamboo. Scissors are used to cut threads and remove bindings after dyeing. Dye vats, buckets, or pans may be necessary for preparing and holding the dye bath. Protective gear like gloves, aprons, and masks are crucial when working with dyes.

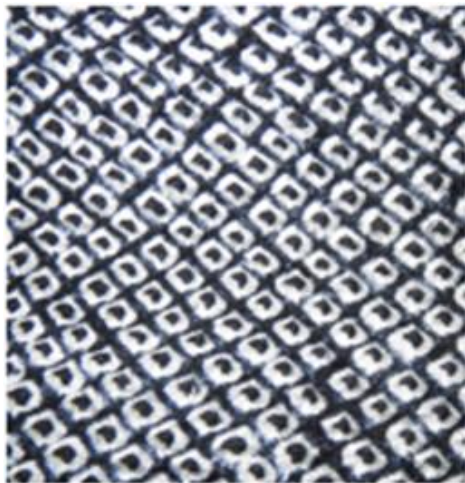
e) **Dyes for Shibori** were completely natural and hand dyed. Indigo, madder and purple root were mainly employed and Indigo was popular among them. It is a natural blue dye extracted from the *Indigofera* plant, holds significant importance in the dyeing of shibori fabrics. This deep blue hue has become iconic within the realm of shibori, symbolizing depth, wisdom, and spirituality. It is revered as the traditional and quintessential color associated with shibori. After dyeing, the fabric undergoes a curing period to set the color properly and after drying the unwrapping is done

diagonally. Excess fold on the fabric is removed using steam from a cooking pot copper similar to modern day calendaring. They are pulled to the desired width by repeating the same operation several times. Finally, the bound or stitched areas are released, revealing intricate patterns achieved through the resist-dyeing process. Shibori can be used in conjunction with other dyeing techniques, such as batik or tie-dye, to create even more intricate and unique effects. While shibori is traditionally associated with fabric, it can also be applied to other materials such as paper, leather, or even wood [14-17].

Types of shibori and meaning of motifs

The craft of shibori involves a variety of techniques and processes to create intricate and beautiful patterns on fabric, some of them are explained below;

a) **Kanoko Shibori or Tie-dye:** Kanoko in Japanese means fawn or deer's spots. The technique is inspired by the random patterns found on the coat of a fawn or the markings on the skin of a fruit. It involves tying fabric with thread or string at various points to create small, intricate patterns that look like dots or as a speckled effect. The knots or ties can be placed randomly or in deliberate patterns, depending on the desired design.



Kanoko Shibori or Tie-dye involves tying fabric with thread or string at various points to create small, intricate patterns as dots and speckled effects



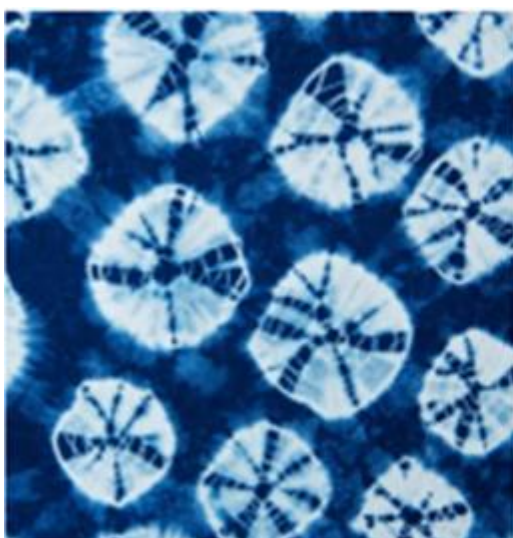
Miura Shibori or Looped Binding is done by creating loops by stitching or binding the fabric, which are then pulled tight to create resist areas creating geometric pattern

Figure 7

- b) **Miura Shibori or Looped Binding** involves use of hooked needle and plucking of the sections in the cloth to create the design. This technique produces a series of small, repeating designs that resemble geometric patterns or rows of dots. Miura patterns, resembling undulating waves, often convey a sense of fluidity, flow, and rhythm. They can symbolize the ebb and flow of life, the cyclical nature of existence, and the continuous journey of growth and change. The loops are typically made using a continuous thread or string that is wrapped around the fabric and pulled tight to create tension. The specific patterns depend on the arrangement and spacing of the loops, as well as the tension applied during the binding process.
- c) **Kumo Shibori or Pleated and Bound** involves pleating the fabric and then binding it with thread or string which is manipulated to create a specific pattern, often resembling a spider web or cloud-like formations.

This pattern represents the interconnectedness of life and the delicate balance of nature. It symbolizes unity, strength, and the intricate relationships between individuals and communities.

- d) **Arashi Shibori, Pole-wrapping or Storm Shibori** is an intricate technique which entails wrapping fabric diagonally around a sturdy pole and tightly compressing it and securing it in place with a string or thread. The pole can be made from PVC, bamboo, or other durable substances. The fabric is bound firmly to the pole, compressing it along its entire length. As a result, Arashi Shibori imparts a unique arrangement of diagonal lines that resembles the reminiscent of the cascading lines of rainfall or the swirling gusts of a tempestuous storm symbolizing movement, energy, and the unstoppable force of nature. It can also convey a sense of resilience, adaptability, and embracing change.



Kumo Shibori or Pleated or Bound involves pleating the fabric and then binding it with thread or string resulting in resembling a spider web or cloud-like pattern



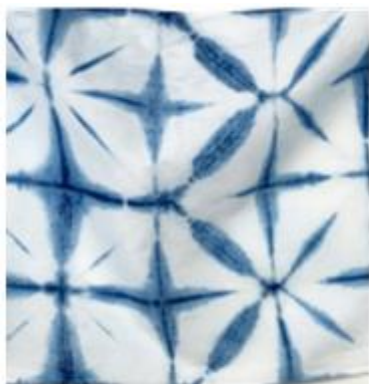
Arashi Shibori or Pole-wrapping or storm Shibori is wrapping fabric around a pole diagonally, compressing it tightly and to tie with a string or thread resulting in lines of falling rain or the swirling winds of a storm

Figure 8

- e) **Itajime Shibori or Clamp-resist** uses wooden blocks or clamps to create bold and geometric patterns. The fabric is prewashed, soaked and it is folded in accordion-style or pleated, and wooden blocks or clamps are placed on either side of the folded fabric tightened and by applying pressure the fabric is secured in its place. Popular shapes include squares, rectangles, circles, triangles, or combinations thereof. The specific patterns depend on the arrangement and size of the blocks or clamps, as well as the folding techniques employed. Itajime patterns, with their geometric shapes and lines, often evoke a sense of order, stability, and balance. They can represent harmony, structure, and the integration of opposing forces [18, 19].
- f) **Nui Shibori or Stitched Shibori** is characterized by the use of stitching to create 'resist' on the fabric surface. Process begins by stitching the fabric using needle and a thread, which is later pulled tight to gather the fabric, thereby creating pleats, ripples, or puckering in specific

areas. Fabric is then immersed in a dye bath or the dye is applied directly to the fabric. The dye is absorbed by the exposed areas, while the gathered areas remain undyed or receive a lighter color. Common patterns in this technique include parallel lines, grids, curves, or free-form designs. As of interpretation, the stitched motifs can be seen as a reflection of human intervention and creativity as they represent the handcrafted nature of the textile, the marks left by the artist's touch, and the value of skilled craftsmanship. The different stitches used as follows;

- **Running Stitch** is the most basic stitch used in shibori done by the action of needle going in and out of the fabric following the design
- **Gathering Stitch** involves creating parallel rows of running stitches, which are pulled and tightened thereby the fabric gathers along those lines, creating a puckered effect [20]



Itajime Shibori or Clamp-resist
technique is done using wooden blocks or clamps to create bold and geometric patterns



Nui Shibori or Stitched Shibori
uses stitching to create resist areas on the fabric resulting in pleats, ripples, or puckering in specific areas



Tesuji Shibori or Hand Pleating
Involves fabric which is folded and pleated by hand before dyeing for organic and fluid patterns

Figure 9

Other techniques:

It is breathtaking to see more than 100 patterns in shibori style, that are displayed in shops and museum in Arimatsu. Some of the techniques are as below;

- **Tatsumaki shibori** refers to a design or pattern inspired by the swirling and twisting motion of a tornado. This could imply the creation of dynamic, curved, or spiralling lines on the fabric. "Tatsumaki" translates to "tornado" in Japanese. **Tsukidashi Kanoko shibori** is a similar variant that has circular pattern.
- **Mokume Shibori** is a style in which the fabric is stitched and then pulled and twisted tightly. The result resembles the wood grain pattern, creating a unique texture. Eventually 'Mokume' means wood grain in Japanese.
- **Tesuji Shibori or Hand Pleating** is a technique where the fabric is folded and pleated by hand before dyeing. This method allows for more organic and fluid patterns.
- **Laser shibori** is a contemporary adaptation of traditional shibori techniques that incorporates the use of laser technology to create intricate patterns and designs on fabric. Instead of using manual stitching, folding, or binding techniques to create resist areas, laser shibori relies on laser cutting or laser engraving to achieve similar effects.

- **Memory on cloth or memory shibori**, is another technique in which fabric is manipulated to retain a specific shape or pattern even after being released from its manipulated state. Through careful folding, stitching, or clamping, the fabric is temporarily secured in its desired form. It is then treated with dyes or colorants, allowing the exposed areas to be colored while the bound sections resist. The result is a fabric with a permanent texture or design, reflecting the original manipulated state. Memory shibori adds depth and dimension to textiles, preserving the intentional folds and shapes, and creating lasting visual impact.

Notable contributions from world renowned artists

Shibori Kaikan in Arimatsu is a must-visit museum and cultural center for those interested in Shibori and traditional Japanese textile art. Located in the historic town of Arimatsu in Nagoya, Japan, this place has been renowned for its Shibori textile production for centuries. Shibori Kaikan offers a range of opportunities to explore the world of Shibori, including exhibitions, demonstrations, workshops, a museum shop, an information center, and special events. It serves as a hub for promoting and preserving the art of Shibori, allowing visitors to delve deeper into this captivating textile art form.

Motohiko Katano, known as a modern master of shibori play a pivotal role in revitalizing and promoting the art form. He developed innovative shibori techniques and has exhibited his works internationally, showcasing the contemporary possibilities of shibori. Hiroshi Murase is a contemporary shibori artist known for his experimental approach and mastery of various techniques. He combines traditional and modern processes, often incorporating unconventional materials, to create intricate and dynamic shibori designs. Itchiku Kubota is a Japanese textile artist who dedicated his life to reviving and evolving the traditional Tsujigahana technique. He expanded on shibori methods and developed his unique style, creating stunning kimono garments with elaborate shibori patterns.

Yoshiko Iwamoto Wada a renowned textile artist, writer, and scholar has extensively researched and documented shibori. Her popular books include “Memory on Cloth: Shibori Now” and “Shibori: The Inventive Art of Japanese Shaped Resist Dyeing” among the many. She has organized exhibitions and also founded the World Shibori Network to foster collaboration and awareness of shibori worldwide. [21]

Bryan Whitehead is an Australian artist who has also made significant contributions by his experimentation in creating

large-scale installations using innovative techniques, and has been instrumental in promoting shibori as an art form in Australia and internationally. Ana Lisa Hedstrom another American artist and educator known for her expertise in shibori and natural dyeing. She has conducted extensive research on shibori techniques and has taught workshops worldwide, sharing her knowledge and passion for the craft.

The town of Arimatsu-Narumi in Japan is renowned for its shibori tradition [22]. Various skilled artists and artisans in this region specialize in indigo-dyed shibori, preserving the traditional techniques and creating exceptional pieces. In order to see the masterpieces and classic artifacts of shibori the collective’s treasure with The Museum of Fine Arts, Boston (Boston, USA), The Victoria and Albert Museum (London, UK), The Textile Museum (Washington, D.C., USA), The Tokyo National Museum (Tokyo, Japan), and The Asian Art Museum (San Francisco, USA) may be resourceful. They feature textiles and garments, including shibori pieces, that exemplify the rich cultural heritage and artistic traditions of Japan. They have displayed shibori pieces as part of their exhibitions, providing visitors with a glimpse into the artistry and cultural significance of this textile technique.



Figure 10: Shibori Kimono by Motohiko Katano, Symphony of light by Itchiku Kubota, Nui Shibori Yukata, The Museum of Fine Arts, Boston, © Japan Folk Crafts Museum

Application of Shibori in textile and crafts

In the past, shibori was primarily used to create garments for everyday wear, especially among the lower social classes in Japan. Different regions developed their own unique shibori techniques, which were often closely guarded and passed down through generations. Today, shibori is not limited to traditional garments but has found its way into various forms of fashion, accessories, home decor, and art installations. Application of shibori is categorised as below

- **Apparel and fashion:** as dresses, tops, skirts, scarves, and accessories [23]
- **Home:** as unique and handcrafted home decor items like pillows, curtains, tablecloths, bedspreads, and wall hangings
- **Textile Art:** wall hangings, framed pieces, or sculptural installations, showcasing the artistry and creativity of shibori.
- **Upholstery and Interior Design:** as in chairs, sofas, and cushions, create custom drapery, wall coverings, or decorative panels

- **Accessories:** bags, purses, shoes, belts, and jewelry
- **Textile Crafts:** quilting, patchwork, embroidery, or fabric collage, adding depth and visual interest to textile-based crafts.
- **Paper and Bookbinding:** Dyeing or folding paper in shibori patterns, unique textures and designs can be achieved, creating one-of-a-kind handmade papers or artist books.
- **Art Installations:** Installations can be found in galleries, museums, or public spaces, showcasing the versatility and impact of shibori as a sculptural medium.

Contemporary artists and designers are pushing the boundaries of shibori by experimenting with new techniques, materials, and aesthetics which is now seen on runway collection, high fashion collaboration, resort and summer wear collection, textile art installations and fashion accessories. They are blending traditional methods with modern design sensibilities, resulting in innovative and captivating shibori creations. The global interest in

sustainability and handmade products has also contributed to the renewed appreciation for shibori's handcrafted nature

and its connection to heritage and culture.



Figure 11: Application of Shibori in Apparel and accessories [19]

Shibori in non-textile applications

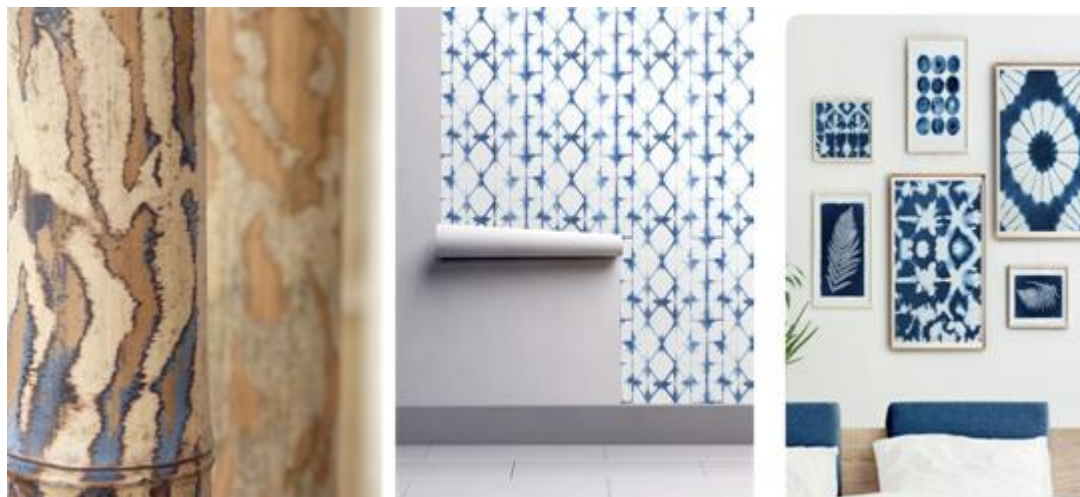
Shibori, with its captivating patterns and textures, has transcended its traditional textile roots and found application in various artistic domains. Ceramics artists employ techniques like slip trailing or resist methods to apply shibori-inspired patterns to the surface of their pieces. Carving, painting, or inlaying these designs into ceramics creates visually captivating results reminiscent of shibori. Shibori techniques can be adapted to paper art, such as origami or kirigami. Folding or manipulating paper in shibori-like patterns allows artists to create intricate paper sculptures, three-dimensional objects, or delicate pop-up designs. Glass artists explore incorporating shibori-inspired patterns into blown or fused glass artworks. By manipulating molten glass or layering glass sheets, they create textures and patterns resembling shibori, resulting in visually striking glass pieces. Shibori patterns and textures can be etched or embossed onto metal surfaces. Metal artists use techniques like acid etching, hammering, or carving to replicate the

look and feel of shibori on metal jewelry, decorative objects, or architectural elements.

Shibori motifs and patterns can be translated into printmaking techniques such as relief printing, screen printing, or mono-printing. Artists can create prints that mimic the intricate patterns and textures achieved through shibori, expanding artistic expression beyond textiles. Shibori-inspired patterns can also enhance product design, from ceramic tableware and glassware to wallpaper and furniture. Incorporating shibori aesthetics into these products adds a unique and artistic touch, appealing to individuals who appreciate the handcrafted and visually captivating elements of shibori. These non-textile applications of shibori demonstrate the adaptability and versatility of the art form beyond traditional textiles. Artists and designers continue to explore and experiment with shibori techniques in various mediums, expanding the possibilities of incorporating its unique patterns and textures into diverse art forms and functional objects.



Shibori on ceramic, paper, leather, glass, metal [24]



Michelle Griffiths Laser etched shibori patterns onto bamboo, Shibori as wall paper and home décor
 Figure 12: Shibori in Nontextile applications [25]

Research design: Considering the nuances of the versatile art form a study was planned on “*Exploration of Shibori Technique for designing Hand-made Books*”.

Background of the study: The handmade book was a story of resilience, where brokenness was celebrated, not hidden. Like the ancient Japanese art of kintsugi, it illuminated the cracks with silver, revealing the beauty of imperfection. The hardcover, crafted from Shibori-dyed fabric, evoked a sense

of timelessness and elegance, while the patchwork represented life's diverse and colorful experiences. This book was a treasure that embraced the scars making us unique, finding beauty in imperfections. It was made with recycled handmade papers bound together using traditional bookbinding techniques. The hardcovers were created using techniques like Nui Shibori, Kumo Shibori, Embroidery, and Patchwork, symbolizing Kintsugi.

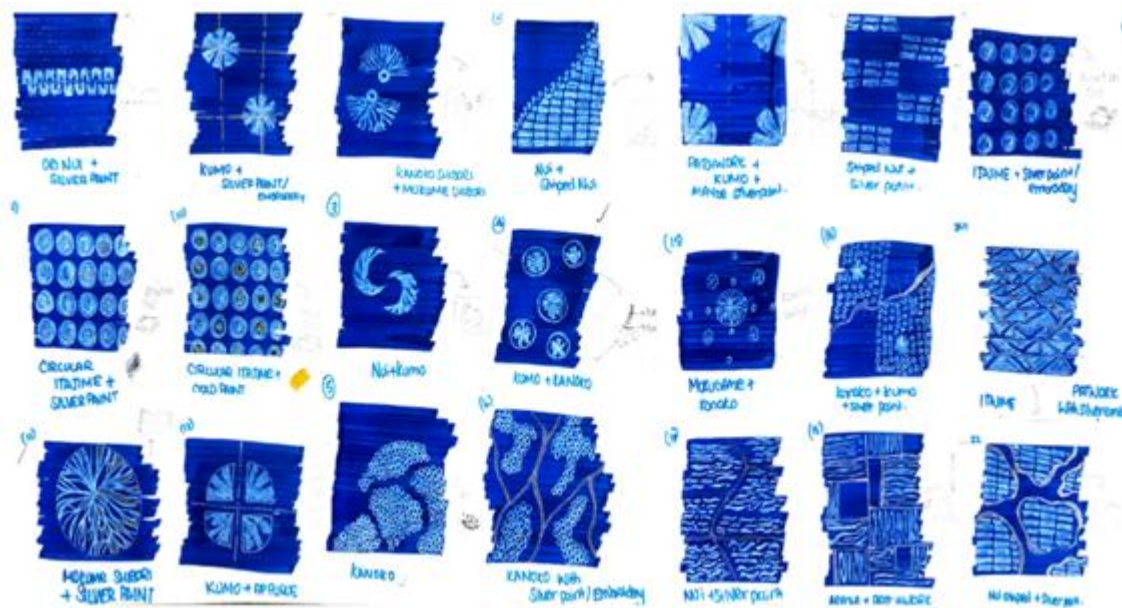


Figure 13: Design Ideation

Design Ideation: Among all the techniques, two shibori styles namely Nui shibori and kumo shibori, were employed in this collection. Three fabric pieces were cut to size, with

two designated for Nui shibori and one for a large kumo pattern. Robust thread was used to securely bind the fabric, preventing dye penetration into undesired areas

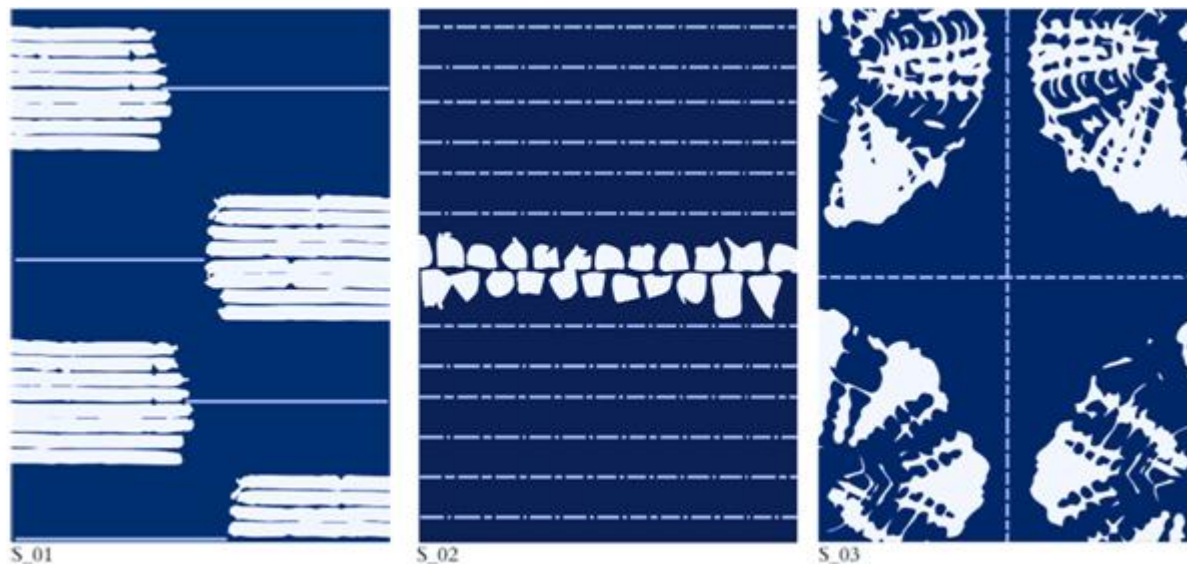


Figure 14: Layout exploration

Motif explorations: Drawing inspiration from traditional shibori motifs, our study planned new patterns, blending ancient artistry with modern design elements. Embraced innovation while preserving cultural significance, we aimed to create captivating motifs that transcended time and borders, ensuring the enduring allure of shibori persevered for generations to come.

Planning on layouts: Layouts were considered very important in design placement. Before making the final product, planning different layouts helped in creating the

best pattern placement for the selected product, using the designed motifs. Meticulous experimentation ensured the optimal utilization of motifs, resulting in a harmonious and aesthetically pleasing outcome for the products.

Creating digital mock ups: The developed designs were explored digitally by applying them on the desired product and exploring the placement and other options available. This will be a valuable tool to interact with any clientele for approval and showing how the designs look on the final product.

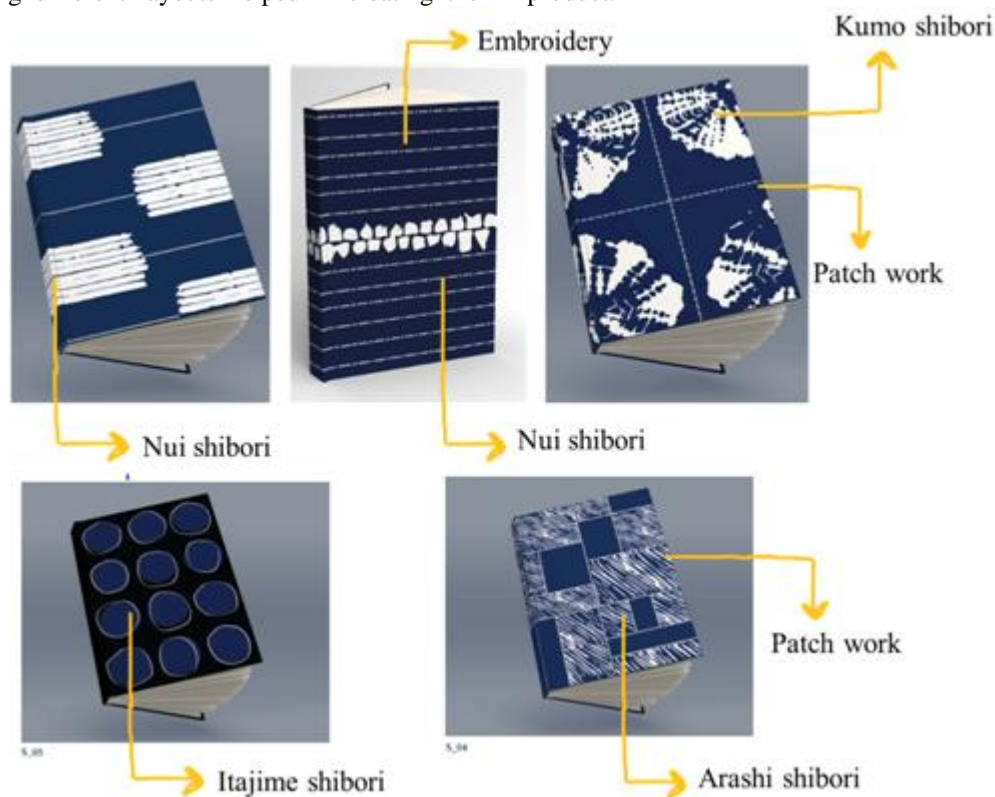


Figure 15: Creating mock ups with specifications

2. Methodology

Preparation of Fabric: Properly preparing the fabric before dyeing is crucial for achieving good results. This includes pre-washing to remove any sizing or finishes, and ensuring the fabric is evenly damp for optimal dye absorption. The purchased cotton fabric underwent a thorough washing process using a mild detergent to eliminate any dirt, oils, or sizing agents that could potentially impact the dyeing

process. While planning the research, one has to remember that the direction of the fabric's grain can influence the resulting shibori patterns. Experimenting with different orientations (lengthwise, crosswise, or bias) can yield varied and interesting outcomes. In order to achieve best results soaking of the fabrics in the water to maximum 3 hours enables in good penetration of dye. The material can be mordanted with alum for better fixation.



Process of shibori dyeing for the study

Figure 16

Fabric manipulation: Folding, Twisting and Binding: The materials used for binding or tying the fabric can affect the final pattern. It is important to understand that different materials like cotton string, rubber bands, or even found objects to create distinct textures and resist effects. When using stitched shibori techniques, the color of the thread can have an impact on the final design. Contrasting or complementary thread colors can add depth and visual interest to the patterns.

Process of Dyeing: For this study, cold reactive dyes were chosen and obtained from a local chemical supplier. The dye powder was mixed with room temperature water and assessed for color intensity. The quantity of dye could be adjusted according to the desired shade. After tightly binding the fabric, it was immersed in the prepared dye solution, ensuring complete coverage of all fabric sections for a uniform color. Hot process is other method, contrast to using cold reactive dyes. They are commonly available as direct dyes, acid dyes etc in which hot water is added to the dye powder first, dissolved completely and then added to the

boiling water bath along with a fixative. The prepared fabric will be boiled in the dye bath for 60mins.

Method of Dye fixation: Following dye application, the fabric was left undisturbed for a specific duration to allow sufficient time for the dye to react and be absorbed. In most methods salt is used as a fixative and added along with the dye preparation.

Unbinding and washing: Once the fixation process was complete, the fabric underwent a thorough rinse to remove any excess dye. Subsequently, the fabric was unfolded, and the binders were removed, revealing the achieved shibori pattern.

Finishing and drying: After complete drying, it was given a iron press to remove any crease and also to exhibit the pattern created clearly on the fabric surface. This also enables in fixing of the dye on to the fabric resulting in good fastness property.

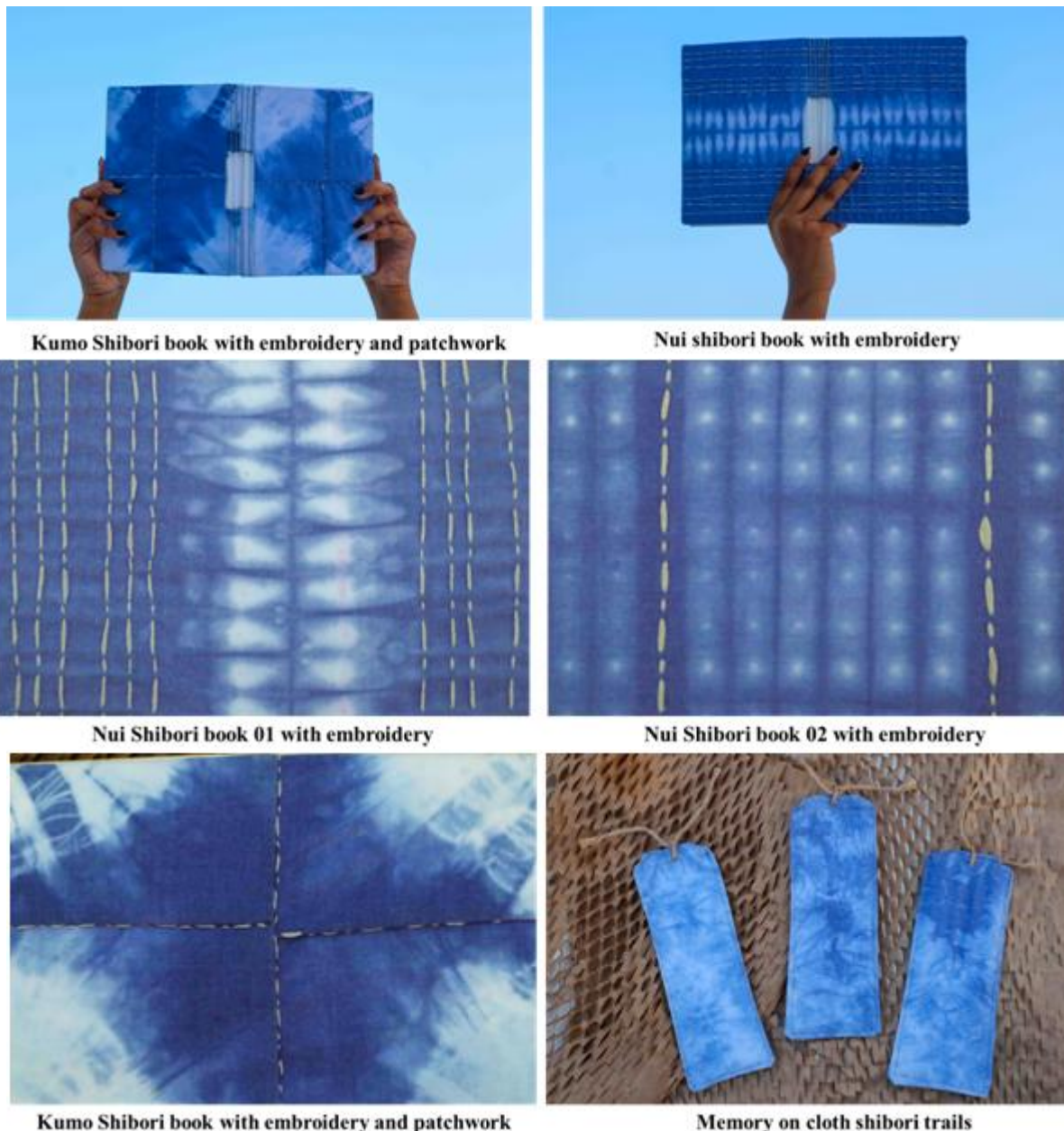


Figure 17

Cover design for the Handcrafted Journal:

Handmade book cover design is an art form that combines creativity and craftsmanship to produce unique and visually appealing covers for books. Unlike mass-produced covers, handmade designs are meticulously crafted by skilled artisans who pay close attention to detail and quality. Handmade paper was purchased, cut and made into A5 size measuring 148 x 210 mm to make 50 pages journal. The developed shibori inspired book covers were stitched and made into a book.

3. Results and Discussion

The significance of this study lies in its contribution to the field of fabric dyeing and textile art. By exploring the

techniques of Nui shibori and kumo shibori, this research offers valuable insights into the application of these traditional Japanese dyeing methods on cotton fabric. This research expands the knowledge base surrounding shibori techniques and their potential applications in textile design and fashion. The findings can be utilized by artists, designers, and researchers to create unique and visually appealing patterns on fabric, opening avenues for innovative textile creations.

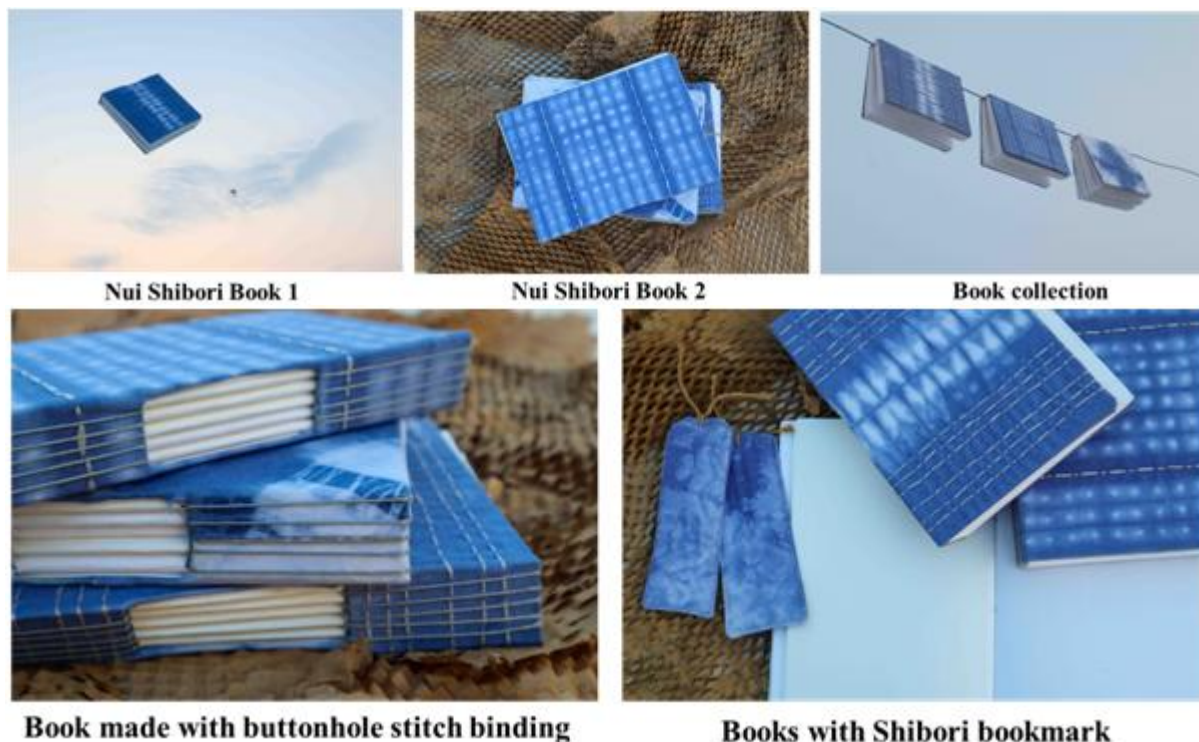


Figure 18

4. Limitations of the Study

Due to lack of time testing the shibori fabric for color fastness, strength and durability, compatibility, longevity could not be carried out. There can also be a consumer feedback survey to understand the which is reserved for further study.

5. Conclusion

Shibori offers a wide range of patterns, from delicate and precise designs to more abstract and free-form motifs. The final outcome depends on the specific techniques employed and the artist's creative vision. The technique of Shibori has been practiced in Japan for centuries and is highly regarded as a traditional textile art form. It has also gained popularity worldwide, with artists and designers incorporating shibori techniques into contemporary fashion, home decor, and art. The unique and unpredictable nature of shibori patterns adds to its appeal, making each piece one-of-a-kind. Overall, this study contributes to the preservation and evolution of traditional dyeing techniques while promoting their relevance in contemporary textile arts and design.

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