

A Contemporary Interpretation of Warli Art through String Art Techniques

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ABSTRACT

The study reimagines traditional Warli tribal art in a modern way. The study focused on using selected Warli motifs known for their simple shapes and strong cultural meaning, and turning them into decorative designs using String art. White canvas fabric was chosen as the base, and red and black wool threads were used to create the designs, representing both contrast and connection to tradition. As part of this research, handmade products like laptop sleeves and wall hangings were developed, showing how traditional art can be used in everyday modern life. This work highlights how folk art can be preserved and refreshed through creative, sustainable, and handcrafted design methods, blending tradition with contemporary style. By integrating the Warli art motif with String art, the study aimed to enrich traditional art by developing the products on canvas fabric for innovation. The products were highly appreciated by the panel of judges for innovation in design, placement of motifs, concept, cost, and overall appearance of products.

Keywords: Warli Art, Traditional design, String art, Embroidery, Contemporary, Innovation

INTRODUCTION

Warli Art is a traditional tribal art form originating from the Warli tribes of the North Sahyadri Range in Maharashtra, India, including regions like Dahanu, Talasari, Jawhar, and Palghar. This ancient art, believed to date back to the 10th century A.D. or earlier, is deeply rooted in the tribe's reverence for nature and their agricultural lifestyle. Characterized by basic geometric shapes, circles, triangles, and squares (Patel and Srivastava, 2020). Warli paintings depict scenes of daily life, farming, festivals, and rituals. These artworks are created on mud walls using white pigment made from rice flour, typically during special occasions. Jivya Soma Mashe, a key figure from the Thane district, played a crucial role in popularizing this indigenous art beyond its traditional confines (Rao, 2022). The ritual paintings are usually created on the walls of village huts. The walls are made of a mixture of branches, earth and red brick that make a red ochre background for the paintings. The

Warli only paint with a white pigment made from a mixture of rice flour and water, with gum as a binder. A bamboo stick end is used to give the texture through its raw edges. Walls are painted only to mark special occasions such as weddings, festivals, and harvests (Deka and Bhadoria, 2018)

String Art, or pin and thread art, is a decorative craft that involves weaving thread or string between a series of pins or nails to form geometric or abstract patterns. The origins of string art can be traced back to the 19th century, when English mathematician Mary Everest Boole used it as an educational tool to teach geometry to children. Her technique of creating parabolic curves with thread laid the groundwork for what would later become a popular artistic and crafting practice. By the 1960s and 1970s, string art had evolved into a widespread hobby, valued for its precision, symmetry, and aesthetic appeal. String Art is done by wrapping colourful thread around nails or pins placed on a wooden or foam board. A design is first drawn or marked on the board, and nails are

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hammered in along the outline. The thread is tied to one nail and then stretched across to others, forming patterns or shapes. Artists use different colours, layers, and directions of string to add texture and detail. Once the design is complete, the thread is tied off to keep it in place (Ostanin, 2020).

Rationale of the study:

This study explores the fusion of traditional Warli art with the contemporary craft technique of string art on canvas fabric. By using threads to reinterpret and recreate Warli motifs, the initiative aims to preserve this rich tribal heritage while making it more accessible and appealing to modern audiences. The innovation lies in crafting products such as wall hangings, laptop sleeves, and other lifestyle accessories that blend cultural authenticity with modern aesthetics. These contemporary adaptations not only highlight the intricate beauty of Warli art but also respond to the growing consumer interest in products that reflect a fusion of tradition and innovation. Through this approach, traditional motifs gain new life and relevance, effectively promoting cultural heritage in today's design landscape.

Objectives of the study:

- To collect the traditional motifs of Warli Art.
- To design Warli art motifs using the techniques of String Art.
- To develop and check consumer acceptability of the products.

Review of Literature:

Patil (2017) in his study focuses on how traditional Warli paintings can be diversified to adapt to modern consumer needs, particularly in home textiles and apparel. Based on interviews with Warli artisans, the study reveals that applying Warli art to new products can open economic opportunities for artisans and bring satisfaction to customers. This diversification is seen as a pathway to ensuring the future of Warli art and improving the livelihoods of the artisans.

Birsak *et.al.* (2018) depicts in their study a new way to automatically create and make string art using computers and machines. Traditionally, string art is made by hand, which takes a lot of time and effort. Artists use straight lines of string stretched between pins to form images. They use a special computer program to turn a regular picture into a design made of strings that looks

like the original image. They also developed a system where an industrial robot helps create these images automatically. Their method successfully produced real string art pieces.

Landge and Dhole (2023) research focuses on preserving Warli art by studying its central themes, which are often inspired by nature and daily life. The study highlights the importance of nature in Warli art and how it reflects the tribe's deep connection with their environment. The researchers used both primary and secondary data to argue for the preservation of Warli art as a significant aspect of human geography.

METHODOLOGY

Collection of Traditional Warli Art Motifs:

Traditional Warli motifs were collected through secondary data sources such as books, Warli paintings, online searches, and articles. Forty different Warli art motifs were gathered for further evaluation.

Selection of Warli Motifs:

A systematic evaluation process was carried out by a panel of experts comprising five textile designers, five fashion designers, and five fashion academicians to select the best five motifs from a collection of forty. The aim was to assess each motif based on its design quality and adaptability to string art techniques. For this purpose, a five-point Likert scale was employed, where each motif was rated for its suitability using the following criteria: Excellent (5), Very Good (4), Good (3), Fair (2), and Poor (1). The scores assigned by all panel members were compiled, and the motifs with the highest overall rankings were selected. This method ensured an objective and comprehensive evaluation, resulting in the identification of the top five motifs best suited for string art adaptation. The following were the criteria for the selection of motifs : cultural representation, design complexity, potential marketability, and suitability for the string art technique

Development of samples using String Art Techniques:

Samples were developed using the 5 selected Warli motifs on canvas fabric, employing string art techniques with the help of three different types of threads (cotton, wool, and polyester).

Selection of Thread for Motifs by Panel:

The selection of the most suitable thread for motif creation was carried out by a panel of five fashion academicians using a five-point Likert scale. Each thread option was evaluated for its design compatibility and adaptability to string art techniques. The threads were rated on a scale where Excellent was assigned a score of 5, Very Good – 4, Good – 3, Fair – 2, and Poor – 1. Based on the cumulative scores, the highest-ranked thread was chosen for further development. Following the selection, the finalized thread was used to develop the motifs on canvas fabric, ensuring optimal visual impact and structural suitability for string art applications.

Development of Products:

Products such as laptop sleeves and wall hangings were designed and developed using Warli motif designs interpreted through the technique of string art. To ensure the most effective and visually appealing outcomes, the selection of designs for both product categories was carried out by a panel of five fashion academicians. The evaluation process employed a five-point Likert scale, wherein each design was rated based on its placement and overall aesthetic appeal. The rating scale included: Excellent (5), Very Good (4), Good (3), Fair (2), and Poor (1). The designs receiving the highest scores were selected, ensuring that the final products reflected both artistic merit and practical adaptability to string art. These selected designs were then executed using the previously shortlisted thread on canvas fabric, resulting in unique, handcrafted products that blend traditional Warli art with contemporary utility.

Acceptability of Developed Products:

4 Laptop Sleeves and 4 Wall Hangings were developed using top-ranked four designs, and selected thread which were evaluated by 5 design experts and 5 academicians, based on design, placement of motifs, concept, overall aesthetic appeal, and cost of the product using mean score. The acceptability score of each product was calculated:

Acceptability Score = Total Mean Score/ Number of attributes.

RESULTS AND DISCUSSION

Collection of Traditional Warli Art Motifs:

Traditional Warli motifs were collected through

secondary data sources such as books, Warli paintings, online searches, and articles. Forty different Warli art motifs were gathered for further evaluation. The documented motifs of Warli art reflects the essence of tribal life through symbolic depictions of spirituality, nature, rituals, and daily activities. Religious figures like *Panch Siriya* and *Bagh Dev*, along with deities such as *Surya* and *Chandra*, highlight spiritual beliefs. Marriage scenes, farming, dancing, hunting, and nature-based activities are commonly portrayed, showing the community's way of life. The art features diverse flora and fauna, deer, birds, goats, lions, spiders, and more emphasizing harmony with nature. Ritual items like the *Tarpa*, *Pasodi*, *Sakhali*, and *Bashinga*, along with domestic elements such as the *Kangi*, wells, and rivers, add cultural depth. Figures like *Navra Navri*, musicians, and shepherds further illustrate Warli society. Overall, Warli art merges daily life, traditions, and beliefs into a powerful visual language (Seth, 2013).









































Table 1 revealed that, out of 40 motifs, five designs were selected by 15 respondents using a 5-point Likert scale. Among these top five motifs, M1, M3, M11, M13, M31 got the highest score, respectively. These motifs, derived from Warli art, were chosen for their significant and inspiring designs, which stimulate creative thinking and encourage imaginative approaches. These selected designs were subsequently utilized for product development.

Development of Samples Using String Art Techniques:

Samples were developed using the 5 selected Warli motifs on canvas fabric, employing string art techniques with the help of three different types of threads (cotton, wool, and polyester). Selection of thread for motifs done by panel of experts using a Likert scale where highest-ranked thread was selected to determine the best option based on design and adaptability to string art. Wool was most preferred for the outcome of the product (Table 2).

Using five selected traditional Warli motifs, ten design concepts were created for laptop sleeves and another ten for wall hangings. Each design was evaluated based on its placement and aesthetic appeal. Among the laptop sleeve concepts, designs numbered 1, 2, 8, and 10 received the highest rating percentages. These top-rated designs were subsequently chosen for further development into finished laptop sleeve products (Plate 1).

Table 1 : Traditional Warli Art Motifs

Sr. No.	Motifs	(Percentage)	Sr. No.	Motifs	(Percentage)
M1.		80%	M21.		60%
M2.		53%	M22.		56%
M3.		81%	M23.		55%
M4.		69%	M24.		52%
M5.		59%	M25.		56%
M6.		73%	M26.		36%
M7.		60%	M27.		43%
M8.		53%	M28.		45%
M9.		61%	M29.		43%
M10.		56%	M30.		53%
M11.		89%	M31.		84%
M12.		61%	M32.		68%
M13.		85%	M33.		36%
M14.		48%	M34.		47%
M15.		57%	M35.		35%
M16.		41%	M36.		65%
M17.		53%	M37.		60%
M18.		44%	M38.		60%
M19.		43%	M39.		52%
M20.		56%	M40.		48%

The ratings were based on two key criteria: the placement of the design and its overall aesthetic appeal. Among the evaluated options, designs numbered 4, 5, 6, and 9 received the highest rating percentages. As a result, these four top-rated designs were selected for further

Table 2 : Selection of thread for Product development

Sr. No.	Thread Type	Total Score
1.	Wool	100%
2.	Cotton	75%
3.	Polyester	60%

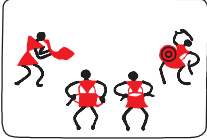

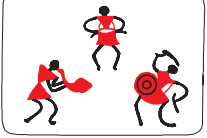





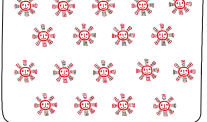



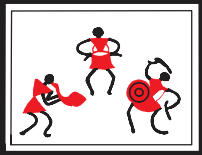
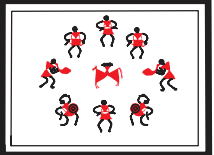

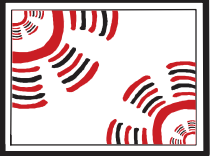

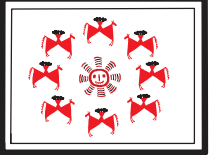


Plate 1 : Design development of Laptop Sleeves					
Sr. No.	Designs	(Percentage)	Sr. No.	Designs	(Percentage)
Design 1.		48%	Design 6.		24%
Design 2.		40%	Design 7.		30%
Design 3.		36%	Design 8.		40%
Design 4.		34%	Design 9.		38%
Design 5.		36%	Design 10.		42%

Plate 2 : Design Development of Wall Hangings					
Sr. No.	Designs	%	Sr. No.	Designs	%
Design 1.		32%	Design 6.		44%
Design 2.		34%	Design 7.		38%
Design 3.		36%	Design 8.		40%
Design 4.		42%	Design 9.		42%
Design 5.		42%	Design 10.		38%

development into wall hangings (Plate 2).

Acceptability of developed products:

A total of four laptop sleeves and four wall hangings were developed using the top-ranked designs and selected thread. These products were evaluated by a panel of five design experts and five academicians based on parameters such as motif placement, concept, design, aesthetic appeal, and cost. Mean scores were used for objective assessment of each product's effectiveness and

market potential. The evaluation revealed that the fusion of Warli art motifs with string art appeals to modern consumers seeking creativity and cultural depth. This trend reflects a growing counterculture movement that blends tradition with innovation, aligning well with the evolving demands of the fashion and textile industry. The positive feedback underscores both the commercial viability of the products and the role such adaptations can play in preserving traditional art while expanding its application in contemporary design (Table 3 & 4 and Plate

Table 3 : Product Acceptability of Laptop Sleeves

Parameters of Assessment	Laptop Sleeve 1 (WMS)	Laptop Sleeve 2 (WMS)	Laptop Sleeve 3 (WMS)	Laptop Sleeve 4 (WMS)
Design	3.4	3.6	3.7	3.6
Placement of Motifs	3.8	3.6	3.7	3.7
Cost	3.5	3.6	3.6	3.4
Concept	3.6	3.3	3.3	3.5
Overall Appearance	3.6	3.8	3.6	3.7



Table 4 : Product Acceptability of Wall Hanging

Parameters of Assessment	Wall Hanging 1 (WMS)	Wall Hanging 2 (WMS)	Wall Hanging 3 (WMS)	Wall Hanging 4 (WMS)
Design	3.6	4	3.9	4
Placement of Motifs	4	4.1	4.1	4.1
Cost	3.8	3.9	3.7	3.9
Concept	3.4	3.1	3	3.5
Overall Appearance	3.8	4	3.9	4

3 & 4).

Conclusion:

Warli art, a traditional folk art form from Maharashtra, India, is known for its depiction of nature and everyday village life. In this study, Warli motifs were innovatively reinterpreted using the string art technique to embellish contemporary products such as laptop sleeves and wall hangings. Staying true to the traditional aesthetic, red and black threads were intricately woven on a white base, capturing the essence of Warli art. The use of string art allowed for the creation of linear, detailed, and visually striking designs that were also relatively simple to execute. The final products were highly appreciated by fashion and design experts for their aesthetic appeal and cultural relevance. They present a harmonious fusion of tradition and modernity, catering to the rising demand for unique, handcrafted items in the fashion and home décor sectors. This study not only highlights the creative potential of Warli art in contemporary design but also contributes to its preservation by offering it a fresh and functional application.

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