

# SUSTAINABLE TEXTILE ART: AN IMPROVISATIONAL AMALGAM OF ART AND TEXTILES

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**Abstract:** Sustainable Textile Art is arguably a wider concept than Environmental Art as it has captivated the interests of art lovers and practitioners in a sustainable fashion. This study was planned with the aim of designing and creation of artifacts using biodegradable waste textile raw materials and harmless techniques combined with aesthetic soundness and strong message to encourage people to buy and use the same. Research was carried out in three phases. In first phase, various wooden and furniture areas in and around Chandigarh were explored for finding suitable discarded base and products for installation of Textile Art. Also Samples of Textile Art techniques under the category of Fabric Ornamentation and Distressed Textile were created followed by an evaluation process under which first four highest scored techniques were selected which were further used on the product. Second phase included preparation of design plan of two products i.e. Framed Observance and Silent Bark. After the textile Art was created, it was fixed on each product and the cost price was decided including all the material, presenting and transportation expenses along with artistic concept cost. In third phase, consumer acceptability index on the basis of four criterions like appearance, innovation, sustainability and price by 30 consumers was calculated to be ninety three percent. The created Textile Art products were rated reasonable and innovative by the consumers. This study was an honest effort to bring attention towards the problems of the environment and how artists can put forth their minimal possible creative contribution towards making an environment safe world.

**Key Words:** Exploration of discarded objects, design plan, costing, Framed Observance, Silent Bark, consumer acceptability.

## Introduction

Sustainable development has become a constituent part of economic and environmental policy not only in developed country but also in many developing countries. Today's most burning environmental problems arise from ever increasing volumes of worldwide production and consumption and the associated material flows (UNEP, 2007). Since the problem of environmental degradation is engulfing the whole world with dire consequences, therefore people and organizations from all areas are coming together to find judicial solutions to the hazardous issues and are making every possible effort to save the present and coming generation and most importantly to protect the mother Earth. The environmental destruction caused due to the unending use of high risk materials and methods has become a subject of concern amongst many artists and social activists. Sustainability and its importance has found perfect ground in today's times where almost all forms of materials and services are viewed from the sustainable point of view other than their usual function. As a result, few progressive art lovers have made it a central point of their creations to increase further awareness amongst the public about increasing destruction causing a blow to the environment, economy and human rights.

Textile Art can create wonderful results using biodegradable textile raw materials, organic waste and other items of mixed media which are considered useless. When this earlier abandoned scrap is used to create Art, the so called 'waste' finds its rightful place and reduces the bulk on the Earth as well as in your house. Therefore, as an environmental enthusiast the idea of creating Textile Art, sustainable in nature holds a central key to the present study. This research is an honest effort to bring attention towards the problems of the environment and how we as learners in creative field, can put forth our minimal possible contribution towards making an environment safe world.

## Aims and Objectives of the Study

1. To create and evaluate samples of Textile Art techniques of Fabric Ornamentation and Distressed Textiles.
2. To design and create range of artifacts using sustainable textile art techniques and materials.
3. To find out the consumer acceptability of the created artifacts.

## Methodology

The study was conducted in three phases. First phase included visits to the wooden and furniture markets to access the possibility of Textile Art to be used in any form. The sustainable outlook of reusing the old objects was a key factor in determining the product.

Second phase included evaluation of twenty samples of Fabric Construction and Distressed Textiles Textile Art techniques by students and faculty from Government Home Science College and Government College of Arts of sec 10, Chandigarh. Evaluation was conducted on the basis of three criterions i.e. aesthetics, innovativeness and 3R(Reduce, Reuse, Recycle) to obtain a holistic view from the evaluators about Sustainable Textile Art techniques. Evaluation helped the researcher to work forward in the best direction and therefore, four highest ranked techniques were selected from each category.

After finding the suitable discarded objects, design plan for the creation and fixation of created textile art was worked out. Sketch of Textile Art was created to attain understanding of the concept to be displayed in harmony with the theme. Textile Art was created according to the space selected and outlined in the design plan. Cost sheet of the created products was formulated which included the expenses of Material Cost, Making Cost, Presenting Cost, Transportation Cost and Artistic Concept Cost. Sales price was calculated by keeping a profit of twenty percent from the Cost Price.

$$\text{Sales Price (S.P)} = \text{Profit (20\% of C.P)} + \text{Cost Price (C.P)}$$

Third phase included finding consumer acceptability of the created artifacts by 30 consumers visiting an art and Decor shop(Kalakriti) in Zirakpur in terms of appearance, innovation and sustainability. The products were placed in the shop for a week for consumer assessment. The analysis of the evaluation was calculated using consumer acceptability index.

<b>Total Score =</b>	$\frac{\text{Number of response} * \text{Rating factor}}{\text{Total number of respondents} * \text{Rating scale score} * \text{Number of criterion}}$
<b>Acceptability Index=</b>	$\frac{\text{Maximum acceptability frequency of product} * 100}{\text{Total Score}}$

## Results & Discussions

### Evaluation of textile art techniques

The evaluation of the Textile Art techniques was based on three criterions namely Aesthetics, 3R'S (Reduce, Reuse and Recycle), and Innovation. Since the techniques were categorized under four sections, hence the first four ranks under each category were selected to create Textile Art products. Evaluation of the Textile Art techniques was conducted by respondents of textile and fine arts background.

Table 1 Evaluation of Fabric Ornamentation Technique (FO)

n=30

Sample Code No.	Fabric Ornamentation technique	Total Score	Weighted Mean( )	Rank
FO1	Fabric collage	207	6.90	VIII
FO2	Bonding yarns	240	8	I
FO3	Drawn thread work	227	7.56	IV
FO4	Quilting using threads	219	7.30	V
FO5	Shaped Patchwork	210	7	VII
FO6	Fabric scrunching	201	6.70	IX
FO7	Manipulating stuffed bobbles	240	8	I
FO8	Binding layers	232	7.73	III
FO9	Couching	233	7.76	II
FO10	Quilting and layering	218	7.26	VI

Under Fabric Ornamentation Category, both FO1 and FO7 got the first rank with weighted mean ( $\approx 8$ ), followed by FO9 ( $\approx 7.76$ ) and FO8 ( $\approx 7.73$ ) as shown in Table 1. Bonding yarns and threads came out to be the most preferred technique as it brought out colorful combinations of yarns of all variety. The scrunching technique was least preferred because of the lack of soft texture.

**Tree of abundance**

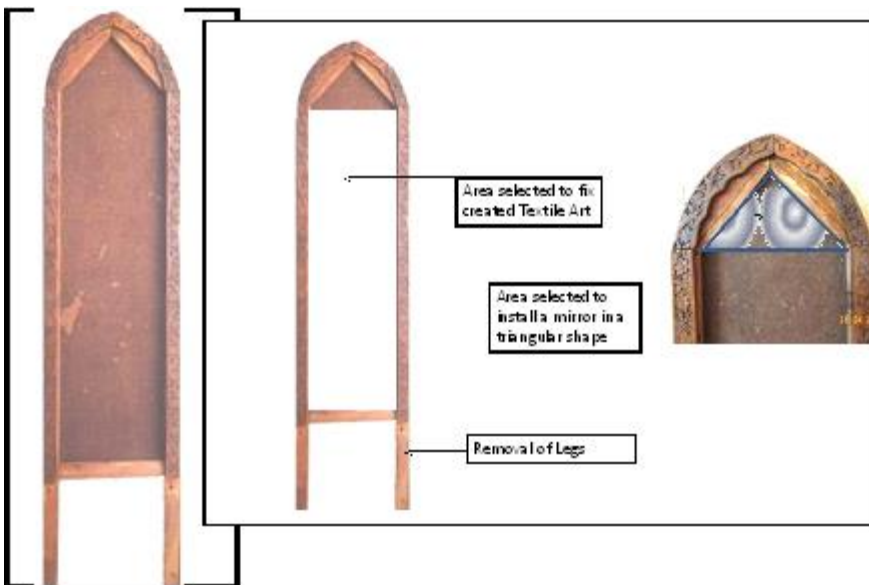
**Description of discarded object I** First product was the mirror holding upper frame of a wooden dressing table with carvings on the edges giving it a traditional look. The shape of the product was straight and slender with the top joining in to give it a triangular shape. The mirror of the product had been broken long back, which led to its discontinuation in use. Figure 1 shows the product and its carved edges.

**Design plan I** The complete plain area was divided into two parts such that a mirror in triangular shape was fixed in the upper part, and the rectangular area below the mirror was selected for the fixation of created Textile Art as shown in Figure 2. The legs of the discarded mirror frame were removed enabling its use as a wall piece.

**Creation of textile art I** The process of creating Textile Art started with the sketching of idea driven from the inspiration. For Product I, the Fabric Ornamentation techniques were used and therefore, the impact of color and form held due importance as shown in Figure 3. The ready dimension of the Textile Art was also determined. Hence keeping in mind the integration of Nature, the idea of abundance tree was used as an epitome of life integrity. It used a mythical concept which held ground for the start of birth and integration of life within.

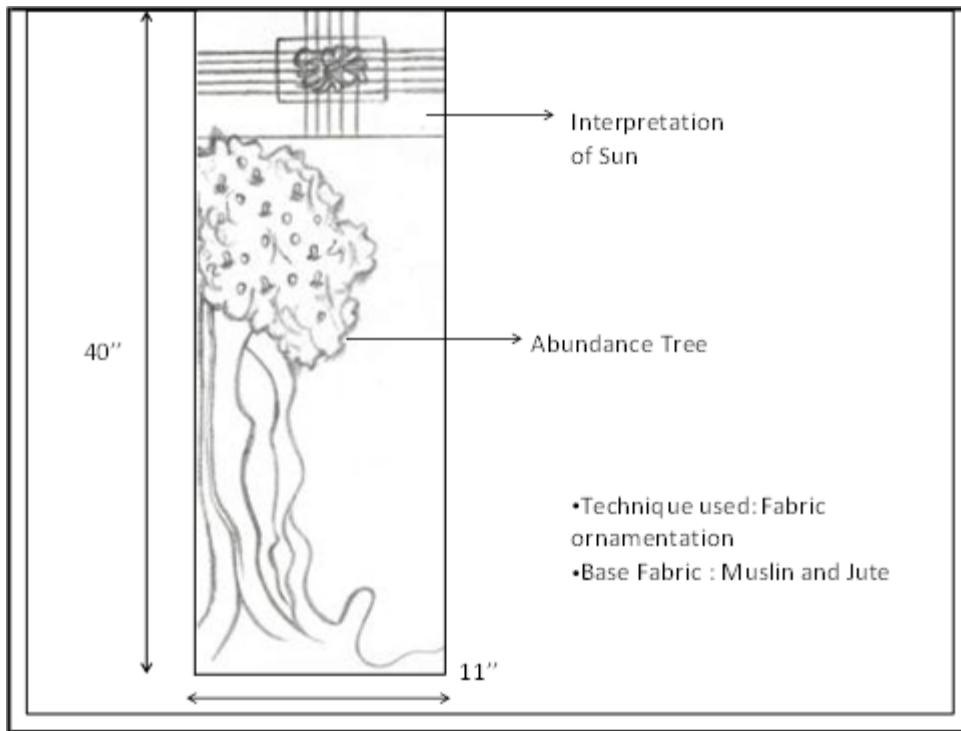
**Fixing of Textile Art on object I** Mirror was installed on the object at the selected area and legs of the frame were removed. Further, the created Textile Art was fixed on the portion below the mirror using small nails. Figure 4 shows the final product after fixing of Textile Art.

**Price Estimation of Textile art product I** In order to estimate the price of the product, various realistic expenses were added to the making and artistic concept fee as shown in Table 2.



**Figure 1:** Discarded mirror frame

**Figure 2:** Design plan of product I



**Figure 3:** Sketch of textile art

Table 2 Cost Estimation of Product I

MATERIAL COST	Material	Quantity	Price	Total Amount(in Rs)
	Muslin	½ meter	30	15
	Bleached Jute	½ meter	150	75
	Cotton crochet thread	25 meter	2	50
	Cotton Anchor thread	4 skeins	10	40
	Total Material Cost			
MAKING COST	Total Hours Worked	Cost of Labor Per Hour	Total Amount (in Rs.)	
	16 hours	100	1600	
PRESENTING COST	Material And Fixing Work	Price	Total Amount (in Rs.)	
	Mirror fixation	150	200	
	Fixing textile art	150	150	
	Total Presenting Cost			350
Cost of transportation= Rs.100				
Artistic concept cost=Rs. 1000 C.P= Rs.3230				
<b>SALES PRICE= 20% of cost price+ Cost price = Rs. 3700</b>				



**Figure 4:** Textile art product



Table 3 Evaluation of Distressed Textile Techniques (DT)

n=30

Sample Code No.	Distressed Textile technique	Total Score	Weighted Mean ( $\bar{X}$ )	Rank
DT1	Tea staining	247	8.23	I
DT2	Fabric tearing	214	7.13	V
DT3	Smoke effect	197	6.56	IX
DT4	Entangling threads	231	7.70	III
DT5	Rust dyeing	217	7.23	IV
DT6	De knitting	207	6.90	VIII
DT7	Applying wax	210	7	VII
DT8	Ripped stitch	188	6.26	X
DT9	Fabric burning	240	8	II
DT10	Felt slashing	211	7.03	VI

Table 3 showed that DT1 got the highest rank with weighted mean ( $\bar{X}$ =8.23), followed by DT9 ( $\bar{X}$ =8), DT4 ( $\bar{X}$ =7.70) and DT5 ( $\bar{X}$ =7.23) under Distressed textile category. Fabric staining using tea was found to be the most preferred technique because of its surprising appearance and unconventional innovation, whereas ripped stitch could not impress most of the evaluators as it appeared simple, easy and plain.

### Silent bark

**Description of discarded object** Discarded logs of different shapes and sizes were explored in order to find a suitable bark log according to suitable size and shape. Therefore, the selection process of the log lead to finding of a leaf shaped log with varying boundary as shown in Figure 5. The height of the bark was found useful to be placed as a table.

**Design Plan of product II** The above surface of log was planned to be made hollow up to 1.5 inches as shown in Figure 7 so that the created textile art would not be hampered by the placement of glass on the top.

**Creation of textile art II** Distressed Textile Techniques were used in the making of product II emphasizing on the idea of spiritual integration. The art was meant to depict the story of the balanced body that meditated to energize the seven chakras despite the distraction of stained, torn and entangled world. The inner chakras were ignited by the eternal fire represented by the burnt cloth (Figure 6).

**Fixing of textile art on object II** The log was hollowed up to 1.5 inches at the top surface. Therefore, the textile art was fixed inside the space created. A glass piece was kept at the top. The shape of the glass was square and rounded at edges (Figure 8 a & b).

**Cost estimation of textile art product II** The cost of the product IV was calculated as shown in Table 4.

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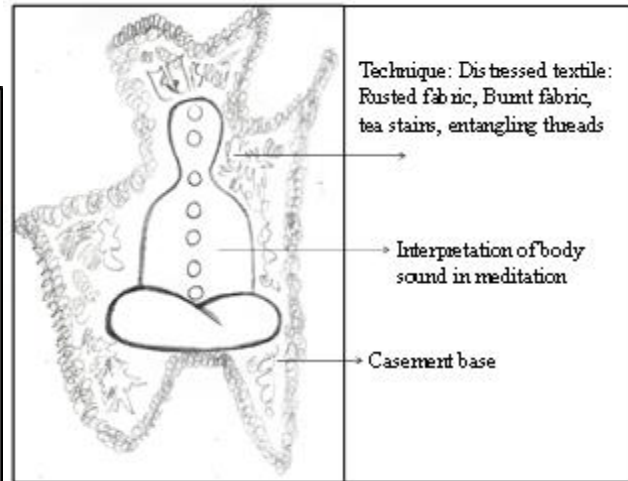


Figure 5: Discarded tree log

Figure 6: Sketch of textile art IV

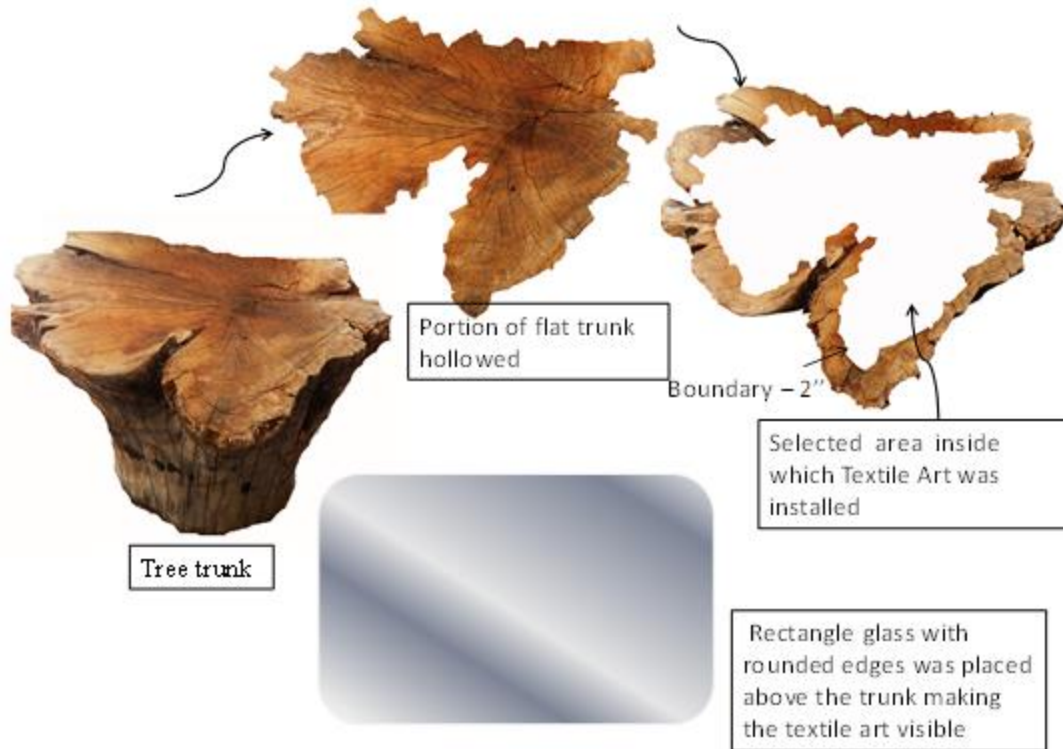


Figure 7: Design plan of product IV



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a. Textile art product II (Top view)



b. Textile art product II (Side view)

**Figure 8:** Views of Textile art product II

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Table 4 Cost Estimation of Product II

<b>MATERIAL COST</b>	<b>Material</b>	<b>Quantity</b>	<b>Cost</b>	<b>Total Amount (in Rs)</b>
	Muslin	½ meter	30	15
	Casement	1 meter	40	40
	Cotton thread	20 meter	2	40
	Silken thread	20 meter	2	40
	Total Material Cost			
<b>MAKING COST</b>	<b>Total Hours Worked</b>	<b>Cost of Labor Per Hour</b>		<b>Total Amount (in Rs)</b>
	12 hours	100		1200
<b>PRESENTING COST</b>	<b>Fixing Work</b>	<b>Total Amount(in Rs)</b>		
	Wooden bark	1000		
	Hallowing the top surface	125		
	Glass piece	250		
	Total Presenting Cost	1375		
Transportation Cost= Rs100				
Artistic concept Cost=Rs.1000C.P= Rs.3810				
<b>Sales Price= Profit (20% C.P) + Cost Price= Rs. 4500</b>				

### Consumer Acceptability Survey

Acceptability of the Textile Art Products was evaluated by the consumers visiting Art and décor shop. They were requested to assess the products on the basis of criterion like appearance, innovation, sustainability and price. The acceptability index was analyzed to be 93% which showed that Textile Art products were acceptable by the consumers as shown in Table 5. Also, the created Textile Art products prompted the customers to ask questions regarding the skill involved and conception delivered.

Table 5 Consumer Acceptability Index of Sustainable Textile Art products

n=30

Criterion for evaluation	Average	Good	Very Good
Appearance	1	7	22
Innovation	0	3	27
Sustainability	0	4	26
Price	2	4	24
<b>Total Score</b>	336		
<b>Consumer Acceptability Index</b>	93%		

### Conclusion

The textile art products created were appreciated not only for its aesthetic appeal but also for its sustainable approach. Comprehensive enrichment of the interior spaces with eco friendly textile Art is an important means of solving the numerous environmental problems and socioeconomic and environmental sustainability.

### References

UNEP. (2007), Global Environmental Outlook 4, United Nations Environment Programme, Nairobi.