

Exploration of Palm Stem Fiber through Practical Application a Sustainable, Low-Cost Reinforcement Material in Composites and for Various Ornaments and Household Products

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Abstract: *The journey of palm stem fiber craft in Shantiniketan stands as a quiet yet remarkable example of how rural creativity transforms the ordinary into the extraordinary. What began as an accidental observation by Mr. Rubai Murmur—fibers loosening from palm stems after a monsoon rain—slowly evolved into a craft that blends strength, flexibility, and artistry. It is evident that this unique fiber, once overlooked, now breathes life into intricate jewelry, hats, baskets, and other handmade treasures sold at the lively Sonajhuri market. The process itself, from hammering and soaking to weaving with wet fiber, reveals a delicate balance between patience and skill—traits that define traditional craftsmanship. This suggests that palm stem fiber work is more than just a means of livelihood; it is a living heritage that mirrors the rhythm of nature and human resilience. Yet, despite its aesthetic and cultural value, the craft remains confined to local markets due to limited publicity and digital presence. Taking this further, the registration of palm stem fiber as a national craft and promoting it through exhibitions and online platforms could preserve and expand its reach. In essence, this humble innovation rooted in Birbhum's soil reminds us that true artistry often grows from the simplest observations, shaped by curiosity and devotion.*

Keywords: palm stem fiber, rural craftsmanship, Shantiniketan, traditional art, handmade jewelry

1. Introduction

Palm stem fiber

- Palm stem fiber is used to make different products like jewelry, decorative products, fruit baskets, flower vase, hats etc.
- Mr. Rubai murmur a man who lives in a small village of Phuldanga, Bolpur Shantiniketan which is in West Bengal India started this craft of making jewelry, hats, known as palm stem fiber 25 years ago in the year 2001.
- This craft was inspired by golden grass.
- One day after raining Rubai saw some fiber coming out of the stems of the palm tree which were broken due to heavy rainfall, in his house, he saw the wet fiber is easy to be worked on he suddenly thought that this fiber can be worked on and started working.



Qualities of Palm stem fiber

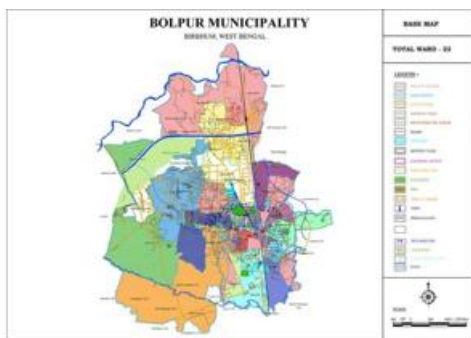
Strength: Palm stem fiber is full of strength; it does not break if force is applied.

Flexible: the palm stem fiber is very flexible and can be easily worked upon



Geographical Location

- Birbhum district stands 9th in terms of area (4545.00 sq. km) in the state.
- The craft of palm stem fiber is done in Shantiniketan and is marketed at "sonajhuri hart". Shantiniketan is located near prantik station bolpur. "sonajhuri hart" is located near aarambagh nursery.
- Climate: Shantiniketan is very hot in April, May, June, July and August and June and July is full of monsoon, pleasant in February and march and is cold in December and January.



Raw Materials



Palm Stem Fiber



Synthetic yarn

Tools and Equipment's



- Scissors
- Chisel
- Katari
- Plas
- Hammer and Adhesives: Dendride & Wood Finish



- **Step 1:** After it is cut from the tree the palm fiber it is hammered to make it soft and to take out fiber from it. after hammering the whole stem fiber is dipped into water for some time.
- **Step 2:** Then the stem fiber is taken out from the water and fiber is being taken out from the palm stem.



Step 1

- **Step 3:** After taking out the fiber it is shaved with bamboo stick which is cut from between so as to shave the waste out.
- **Step 4:** After shaving the palm fiber it is dipped in water for 2 to 3 days so as to increase its strength and make it flexible to work.



Step 2



Step 3



Step 4



Step 5

- **Step 5:** Then palm fiber is taken out from water for making the products.

Weaving

- This is how the weaving is done to make different designs, a metal wire is used as a base and then the weave is done on the wire, it can result into bangles, earring, locket etc. the weaving is done with wet fiber as it has highest flexibility when wet.
- Soaked in water for some time after doing weaving for some time and then again taken out to complete the work.



Crafts man braiding partially dried palm fiber on metal wire



The Braided palm stem is again soaked in water

Products made out of Palm fiber



Basket, Hat, Fruit Basket made with Palm stem fiber



Bangles, earrings and Necklaces made out of



Palm stem fiber, embellished with beads.

Marketing Channels

- "Sonajhuri" is a famous place where handmade products are sold at affordable prices. it is also known as "Saturday hart" as this market usually opened every Saturday.
- It is a place where a lot of people mainly tourist visit, and tourists are the target customers of the crafts man at "sonajhuri"
- Artisans display their works in this saturday market at sonajhuri in santiniketan, bolpur, west bengal.
- This is a place where different types of craft items are displayed and sold at very affordable prices.
- Whenever we visited their we usually found that the people who buy these craft items are foreigners.
- The price of a product is decided according to the buyer if the buyer values the craft he or she can even pay 5 times more than the actual price and if not they will pay even half the price of the actual product.
- This is a low maintenance market where there is no electricity cost, rent etc. but when there is rain it is very difficult for the craftsmen to handle everything.



Crafts men Profile

- Name: Mr. Rubai Murmur
- Age: 66
- Gender: Male
- Working hours: 3 to 4 hours
- Qualification: 5th pass
- He is the one who started this craft.



craftsmen itself. No references has been taken for this paper.

[3] Credits: Crafts men: Mr. Rubai Murmur & Mrs. Chabi Besra.

Name: MRS. CHABI BESRA

- Age: 45years
- Gender: Female
- Working hours: 4 to 6 hours
- Qualification: 5th pass
- She is the niece of Rubai Murmur.
- She learnt the craft from Rubai Murmur.



2. Conclusion

This is a new craft which was started about 20 years ago, because of its less popularity and lack of publicity and advertisement and also because it does not have a vast market, this craft is only sold at sonajhuri hart so as to make it famous the market where this craft could be sold has to be diversified.

3. Future Possibility

So as to make this craft famous it first have to be registered under the government as a national craft and after this it will be displayed in exhibitions so as to make it famous among craft lovers and appreciators. These products can be sold online through various companies or the crafts men can be educated to sell it online directly to serve vast group of people.

References

- [1] Original Field Research: The data was collected through direct observation, interviews, and interaction with the artisans in their own environment.
- [2] This complete study is done by visiting the craftsmen and knowing each and everything in detail from the