Textiles and Clothing Research Centre e-Journal
Volume 4, Issue 7, February 2020, pp. 10-

Student's Corner:
Corn Peel: Sustainable Textile Craft Innovation and Design

Rakhi Gupta

Abstract
Corn peel has always been fascinating. It is naturally textured and has in building couture layers as well as colour. This made the beginning to proceed. That it can be the future of sustainable textiles. The experimental purpose was to develop a technique of thread making through corn peel. The experiment also includes pictures to examining the type of texture and technique in different temperatures along with the pros and cons to find the solutions. This experimental study also includes various methods to develop the best outcome, which includes a dyed and un-dyed thread Formation of more than one meter to spool it. Thread like structure was obtained after overcoming various difficulties. This paper discusses the use of best out of waste, by creating a path for sustainable fashion design that may lead to the growth in the industry of fashion and textile Crafts.

Introduction

Corn peel is a natural fibre obtained from corn, which is durable and sustainable resource. Corn peel has a very simple and strong structure. It has a natural cream colour and without any chemical it can be dyed naturally. It is produced within environmental, economic and social beneficiary parameters, without any health risk for workers, craftsman's, consumers and customers. It has been ages in our textile history we have been obtaining natural fibres from different natural resources. Sustainability is important in every sector so in our textile and fashion industry. At this time of fast fashion brands, which produce tones of industrial pollution and creating unhealthy surrounding, we need to clean air, by producing the demand of natural resources for nontoxic environment. By utilizing the skilled India craftsmanship on global scale. We have to take a sustainable fashion market initiative from waste to wear by focusing on future of textile for new India mission.

The Experiment

This is an interesting experimental study that includes examining, the type of natural fibre and its texture under different conditions, temperatures and stages (Figure 1).

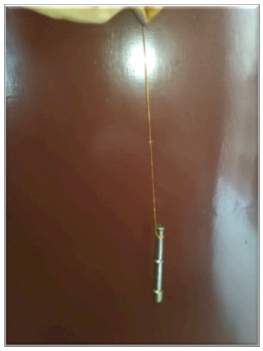
- **Structure:** The simple structure of corn peel has various characteristics good strength, water droplets repellent tendency because of its wax like smooth touch, scaled texture finish on the top and smooth from inside, lightweight, coarse fibre look. Which is examined thoroughly to extract its natural structure by following the technique below.
- **Technique:** Combing is done to obtain shape out of the raw peel extraction, by removing damaged Strands from in between by giving little stretch. After this stage natural dying process is done.
- **Temperature:** Different degrees of boiling temperature tried and tested to gain the final result without any toxic chemical usage under dyed form of corn peel to add colour.
- **Strength:** The strength of fibre checked less than 100 degrees of boiling water and quick ice cooling is done. Finally to recheck the strength it is tied on metal piece and hanged.
- **Binding:** Handicraft mathematical warp and weft weaving is also tried on wooden small size frame. To

obtain certain shapes and reduce the wastage different samples was created.

- **Processing:** corn peel processing is done by consuming, collecting and re-cycling. First the consumption of corn crop, second collection on corn peel, third the recycling process by treating corn peel in 100 degree boiling water to recycle and reshape the structure of fibre obtained in best possible textile form.
- **Stages:** Corn peel processing stages are 1) the thin fibre strand obtained out of the corn 2) corn peeling and collecting corn peel 3) combing corn peel into multiple strands, 4) stage selection of neatly combed strands.
- **Finishing:** Strand stretching and finishing process is done, by precise handcrafting.

Dried corn husk

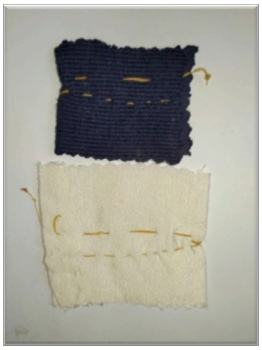
Combed corn husk



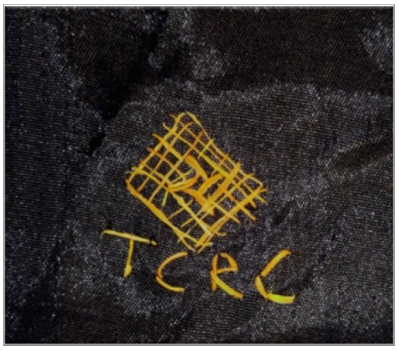
Strength check of corn peel thread

Un-dyed corn thick thread

Naturally dyed corn peel thread



Corn peel textile thread stitching samples on dark and light background



Sustainable Hand embroidery with naturally dyed corn peel thread

Figure 1: Corn Peel: Sustainable Textile Craft Innovation and Design, Photo Courtesy: Author

Uses

Creating a path for sustainable fashion and design, corn peel thread can be used in handcrafted embroidery motifs. The well-refined form of corn peel may lead to the growth in industry of fashion and handloom textile craft making present the best out of waste.

Conclusion

This experiment has thrown light on the sustainable future of textiles. It can be seen as my small contribution towards the celebration of precise craft and design in the textile industry.

About the Author

Rakhi Gupta is a fashion designer, national record holder (six times within four years) published in record books for unique creative design ideas, received a Vashisht Nagrik and Nari Sashakti award and presented royal collection in grand finale for the awareness of covid-19 in Bangalore fashion week 2020.