



Eco Printing of Textile – A Sustainable Technique

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Introduction:

The textile industry is the second largest sector next to agriculture but this textile industry is now facing increasing global scrutiny of its environmentally. The development of sustainable alternatives (production methods, materials, design practices and business models) is thriving and a significant number of fashion/clothing brands. The fast expanding textile and fashion industries are having detrimental effects on the environment and society, and fashion corporations are not putting sustainable solutions into practice quickly enough to offset these effects. Therefore there is an utmost need to go back to eco-friendly techniques in textile sector in a sustainable manner and eco-printing is excellent way for it¹. Natural dyes or natural colouring is one of the many possible avenues for eco-fashion. All plant has the potential to be used as a fabric dye but it not necessary that all will yield good colour. Printing textiles with plant materials is considered a sustainable practice for develop unique patterns with value added products. Textile printing is a valued added process through the application of colours in definite patterns and designs.

Dyeing, printing and eco-printing are few techniques used for surface enrichment of fabrics. Currently, the demands for an eco-friendly printed product are increasing tremendously. One of these techniques and eco-friendly printed fabrics that can be produced are various value added textile products, namely eco-prints². Plants, leaves, and flowers imprint their shapes, colors, and patterns on fabric using the eco-printing process. The plant material bundled into cloth is steamed or boiled to release the dye found naturally occurring in the plant, creating a contact imprint in the shape of the leaf or flower used. These contact prints are referred to as “eco-prints.” When we talk about eco-printing it’s all about colours, fixation and appearance on fabrics. Eco-printing seems easy and simple but in reality it doesn’t look as easy as it seems. In eco-printing two similar printed fabrics cannot be made because it is a kind of art, each touch and prints is different from each other due to seasonal changes³. In India, for eco-printing different colour bearing leaves are used for surface enrichment of fabrics such as teak leaves for their beautiful purplish pink colour, guava leaves for their

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yellow colour, marigold flowers as well as eucalyptus leaves. Usually flowers do not print or make a clear picture, but give an impression of it on the fabric. By using natural pigments present in flora eco-printing is done on fabrics. Depending on the season, temperature and time of year these pigments appear in different colours. This process helps the natural pigments to leave incredible detail of form/shape and colours on fabrics making it an antique finish.

Eco-printing techniques: Eco-printing is a natural form of printing that uses direct to fabric printing from leaves, stems of flowers. In nature almost all plants bear some colourants and that can be transferred directly to the fabric Surface leaving an imprint of the leaves, flowers and stems on the fabrics.⁴

aesthetic purpose and for other purposes as it has good washing durability and a UV protective approach, which can encourage the buyer to buy the product.

Eco-printing on fabrics : Eco printing is a direct contact the process in which the colour sources like leafs; flowers, twigs etc. are put onto the fabric where shapes are imprint onto textile materials. Eco printing transfers the pattern (shape) of leaves and flowers onto the surface of various fabrics, which have been processed to remove the waxy layer and fine dirt on the fabric so that the plant colours can be easily absorbed. The eco-print process using the roll technique (Bundles) is done by attaching natural materials directly to textile materials and then steaming to bring out the shapes and colours of

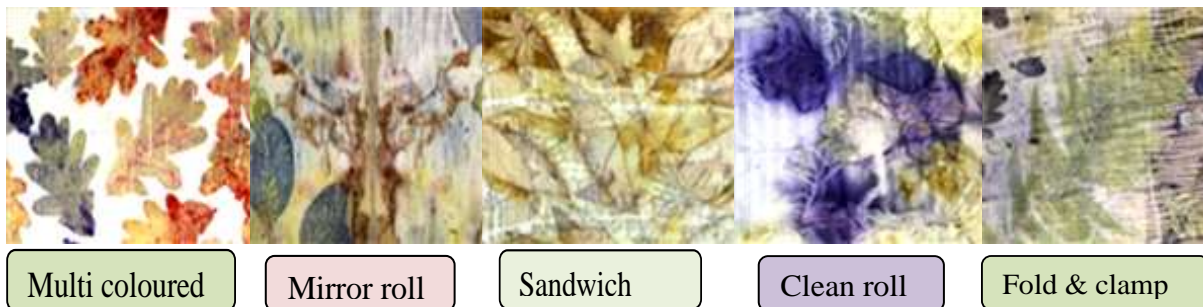


Fig.1. Different eco printing techniques

From the eco-printing process, the used waste water can be reused, rinsed cold water as a flush of a toilet at the plant. This application allows us to reduce our production costs as eco fibers are available and easy to use¹. Thus, it can be said that eco-printed textiles can play a vital role in the future. It can be used as an

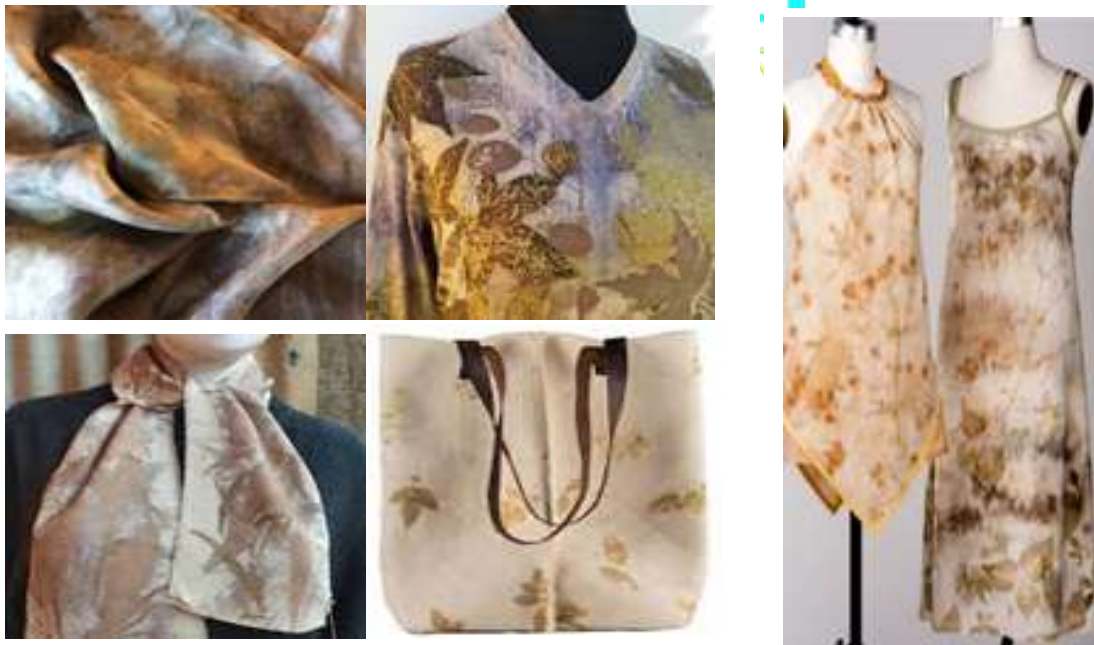
the natural materials. For Eco printing the best coloured and design are obtained in natural fabrics. Eco-print colouring results include motif clarity, colour sharpness, colour evenness, and colour absorption. In short, Eco -printing creates prints of leaves /flower/ any other natural twigs etc, containing the natural

pigments, tannins and acids present in it. By combining them with mordants, moisture and heat beautiful eco-print can be printed on the fabric. The use of natural dyes to impart colour on to fabrics has been around for more than 5000 years. Over the last decade, this method of imparting colour onto the fabrics has become very popular across the world and demand has increase enormously^{1,5,6}.

Eco-printing is sustainable: Eco-printing is a recognized sustainable textile application and products are very creative. Natural dyes and natural processes are used in the eco-printing process; hence it is sustainable in the textile world. Eco-printing can produce various environment-friendly and low cost which have tremendous social value unlike the market competition.

sector, eco-printing represents sustainability. Eco-printing aims to reduce its ecological imprint by promoting eco-friendly methods including recycling materials and implementing energy-saving technologies. It backs a sustainable strategy that aids companies in preserving the environment in the printing industry⁷.

Conclusion: Today eco-printing is gaining its popularity world-wide and people are becoming more conscious of the choices they make, living sustainable and mindfully are becoming a norm. Eco-printing is such an art when one doing things with own hands is joyful and touches the soul. Eco printing is one way of being connected to nature and staying healthy as well as mindful soul by doing it with own hand.



These eco- printing applications can justify business sustainability¹⁰. In the printing

Regarding environmental issues and the search for more sustainable ways of

working and living the eco-printing is far more environmentally friendly than many of our modern dyeing/production methods and on natural fabrics the best results are achieved.eco printing is one of sustainable techniques that can enhance the livelihoods of the people involved in printing textiles.

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