

## CONTEMPORARIZING DESIGNS FOR REVIVAL

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**Abstract:** Indian handloom textiles are popular worldwide for their uniqueness and diversity. In spite of increasing urbanization and globalization of consumer tastes and market demand, the textile traditions are alive, thriving and are still breathing part of India's cultural and social life, even today.

The paper tries to give an overview of one such languishing craft of natural aal (*Morinda citrifolia*) dyeing and handloom weaving in Chhattisgarh and Odisha. It was found that aal dyeing, which is still practiced at a very small scale in Kotpad village of Odisha has remained untouched by the other newer ways of natural dyeing. The bright rich colour achieved from aal varies from bright terracotta reds to maroons to deep browns and black.

The local demand for aal dyed fabrics has been on a decline due to easy availability of cheaper, more decorative and synthetic alternatives. An attempt was made to plan and diversify products in order to develop new markets for the traditional crafts. The paper highlights the adaptability of the traditional weavers to changes made for product diversification.

**Keywords:** Traditional Craft, *Morinda citrifolia*, Revival, Sustainability, Product Development

### 1. Introduction

Indian textiles have been sought after all over the world since the days of ancient civilizations. The exquisite and luxurious hand woven, dyed or skilfully printed fabrics have always been treasured by families as heirlooms, museums and collectors. However, the crafts and textiles meant for use by marginalized group of people such as the tribal population lagged behind because they had low decorative aspect. In fact some of these traditional textile techniques of dyeing, printing and weaving were gradually lost or are languishing, due to meagre demand and little support to artisans.

Thus a need was felt to undertake research work on one such craft, which required attention. The aal dyed handloom woven textiles of Bastar in Chhattisgarh and the neighbouring Koraput in Odisha were studied. Aal is a bright red colour dye extracted from the root bark of the *Morinda citrifolia* tree, which belongs to *Rubiacea* family. The dye is used for colouring low count cotton yarns which are woven along with off white yarns to make *Pata*, which is used mainly as sari by the women of the tribal societies and *pheta* or *angoccha*, used as turban or shoulder cloth by their men.

Weaving of aal dyed textiles is known to the Bastar area since 16<sup>th</sup> Century which was most probably brought to the region from village Kotpad in the district Koraput of the neighboring state of Orissa. Villages such as Tokapal, Nagarnar and Kondagaon in Bastar District had weavers who were experts at dyeing and weaving of aal dyed fabrics (Singh, Chishti and Sanyal, 1994).

Originally the aal dyed textiles were not only popular with the tribals of Bastar and nearby areas, but also with people belonging to higher castes such as Brahmins. However, today most of them have stopped wearing them. At present the use of these textiles has remained limited mainly to the *adivasi* (tribals) of Bastar. (Balaram. P. 1998) Instead of aal dyed fabrics; women in the region have started wearing polyester sari. But low price of synthetic saris is not the only factor influencing the women's choices; polyester saris are brighter in colour and offer a far greater variety of prints and layouts. They are more lasting than cotton ones, easier to wash and maintain; and significantly lighter in weight. Even the aal dyed fabrics for men are now replaced with lightweight synthetic or cotton *gamchas*.

### 2. Aal (*Morinda citrifolia*) Dye

*Morinda citrifolia* is also known as Indian mulberry. The roots of *Morinda citrifolia* spread out and are not too deep in the ground. These are dug out when the plant is three to four years old; the root bark is dried and sorted to be used for dyeing. The coloring matter resides in the root bark and is present to the maximum extent when the plants are three to four years old. Mature trees hardly contain a trace of it. For dyeing, the roots are chipped and given a preliminary steeping in water to wash off the free acids. Best results in dyeing are obtained from a neutral dye-bath of washed *Morinda* roots. Red, maroon and chocolate shades are produced on mordanted cotton. Red dyes are based on anthraquinone structure. These dyes are characterized by good fastness to light.

Most parts of the *Morinda citrifolia* plant are reported to possess medicinal properties. The roots and leaves are used as a cathartic and febrifuge, and applied externally to relieve pain in gout or applied on wounds. Fruits are used for the treatment for spongy gums, throat complaints, dysentery and leucorrhoea. (Wealth of India, CSIR, 1962)

### 3. Objectives

A research study was therefore designed with the objective to explore possibilities of using eco-friendly natural dye *aal* (*Morinda citrifolia*) in an attempt to revive the languishing dyeing and weaving skills of the dyers and weavers of districts of Bastar and Koraput in Chhattisgarh and Odisha, respectively.

### 4. Methodology

First phase of the study revealed the present status of the craft of dyeing cotton yarns with *aal*. A descriptive research design was planned with a combination of tools and techniques to obtain the relevant data. Purposive and snowball sampling method was used for selection of respondents in order to administer the interview schedules

In the second phase tests were conducted to optimize the *aal* dyeing parameters like time, temperature, pH and concentration of dye to reduce the duration of dyeing time. Keeping in view the expectations of the consumers from naturally dyed material, the study was also aimed towards testing the color fastness of *aal* dyed fabrics. The *aal* dyed cotton fabric samples were tested for colour fastness against washing, rubbing, perspiration and light.

In the third phase of the study, which is presented in this paper, an attempt was made to revive the *aal* dyeing and weaving of traditional *Pata* weaving by way of product diversification. After an initial market survey, it was decided to introduce *aal* dyed fabrics for home interiors in the form of cushion covers and other products. Interested weavers were given paper designs. The new range of garments, home textiles and accessories were showcased to generate a feedback from the retailers.

### 5. Results and Discussions

The study revealed that dyeing with *aal* involves a tedious and time consuming treatment of cotton yarns with castor oil, cow dung and charcoal ash water in stages, which takes at least twelve to fifteen days for processing. The yarns are then soaked and boiled in *aal* powder solution. The right shade does not actualize immediately. For deeper shades hanks are dyed again and the process is repeated till the required shade is achieved. For black colour, iron filings or *hirakasis* (ferrous sulphate) are used along with *aal* powder. Thus, after a month, one lot of yarn gets dyed in the required shade, which not only has colour of *aal* but also dyer's skill and hard work. However the craft of dyeing with *aal* is languishing as the supply and the price of *Morinda citrifolia* root bark has been erratic.

If the proper dyeing process is used with natural dyes, wash- and light-fastness ratings of dyed samples are good to excellent – comparable with synthetic dyes (Henriques, 2005).

In order to minimize the time and resources required in the traditional process for *aal* dyeing of cotton yarns, experiments were carried out in the laboratory. It was concluded that the samples gave best results when dyed with *aal* dye at pH-7, time-1hr, temperature-90°C and concentration-20%.

Dyed fabric samples were then tested for colour fastness properties. Colour fastness to washing was found to be very good [4-5], in two samples which had higher concentration of *aal* dye. Overall result shows that *aal* dyed fabrics have excellent fastness to dry rubbing and good to wet rubbing. The adjacent fabric was slightly stained in one sample, which might have been due to superficial colour. Dry rubbing gave better results than wet rubbing [4-5]. On testing the colour fastness of *aal* dyed fabrics to perspiration, it was observed that the samples displayed excellent colour fastness to acidic perspiration with very slight staining, whereas, slight colour loss and staining was noticed in alkaline perspiration medium. Under alkaline medium, all the three samples showed excellent results [5]. All the three samples of *aal* dyed fabrics showed excellent fastness to light [5]. It is therefore concluded that *aal* dyed fabrics have very good colour fastness to most of the conditions a fabric goes through, during consumer usage.

The dimensions, contents and layout of *Pata* have evolved into regular saris, *dupattas* and stoles for the urban consumers. The concept of engineered layout of motifs was new to all the five weavers selected to

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carry out the product development under the study. As they do not use standard measuring tools like rulers or measuring tapes, the extra motifs were not placed as per the designs provided to them. As the weavers were old and experienced but illiterate, it was not possible to teach them the new skills to weave using drawings or graphs with precise measurements. Hence the second set of designs were made with placements which had motifs placed randomly. This resulted in better coordinated collection as the errors were not visible. Scaled down colored printouts were given to the weavers to develop fabrics for runners, cushion covers and placemats.

While designing new fabrics using *aal* dyed yarns at the Kotpad cluster, few things were kept in view. Only locally available raw material was used to ensure easy availability. Designs were made according to the loom set up as it was not possible to make changes in the loom. An attempt was made to design engineered pattern layouts for new products. Traditional motifs were used in different layouts, as the weavers did extra weft weaving by memory and did not make use of graph or drawing or any such aid.

## 6. Conclusion

- It was observed that the dyers of *aal* dyers of Kotpad as well as weavers make complete use of all the material while processing and dyeing cotton yarns. They make cautious use of all resources, including water. The yarns were prepared for dyeing with cow dung and ash obtained from the kitchen hearth. Disposal of effluent was also taken care of. After dye extraction, the sludge is either composted or utilized as fuel. Complete environmentally safe discharge is possible by rural artisans and industry with low capital investment.
- The main factors responsible for the decline of natural *aal* dyeing and handloom weaving in the region of study are
  - Non availability and irregular supply of *aal* dye
  - Varied colour yield of *aal*
  - Time consuming and complex pre-processing (dyeing) of yarns
  - Limited colour palette, motifs, layout and products
  - Declaration of the region as naxalite hit territory; hence development work in terms of infrastructure is negligible.
- *Aal* dyed fabrics show good colour fastness properties when tested under laboratory conditions. It has good fastness towards washing, rubbing, perspiration and shows excellent heat fastness. Overall result shows excellent fastness to dry rubbing and good to wet.
- Response to the new products made using *aal* dyed fabrics, developed with traditional weavers was encouraging. Most of the visitors to the exhibition felt that *aal* dyed fabrics should be promoted for their eco- friendly, chemical free process and highlighted as a fabric for style statement.

There is an urgent need to revitalize and revive the craft of *aal* dyeing by creating new markets and new products. This requires initiative by the traditional craft community as well as designers, developmental bodies and the State government. Craft communities have in-depth knowledge of flora and environment gathered through oral traditions which has enabled the sustenance of processes and material usage for many textile traditions. This knowledge will survive only if the craft is preserved, documented and invigorated with innovation in design, inclusion of new sustainable raw material and acceptance by aware customers.

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