

# Ayurvastra – Ayurveda in Textiles



Javed N. Sheikh

M.Tech. (Textiles)

Javed Sheikh : Ten years down the line I want to see myself as fulltime Entrepreneur and part-time teacher.

## Abstract

Ayurveda is used as medicine since ancient times it known as Indian system of Vedic healthcare. Ayurvedic principal is to maintain good health and adopt a healthy way of life. The concept of ayurveda in textile is not new, it was used long time back but today we forgot about this. It has developed originally in India which is called as "Herbal Dyeing". Medicinally dyed textile substrate is well known as ayurvastra. It is a new way to keep people healthy.

## 1. Introduction

Medicinally dyed substrate is well known as ayurvastra. It is branch of ayurveda only. In Sanskrit ayu stands for "life", and vastra is cloth or clothing. Ayurvastra is the dress provides better health, long life and it is set to help restore balance within body's systems & strengthen the immune system. It is completely free of synthetic chemicals & toxic irritants & is totally organic sustainable & biodegradable.

Herbal dyeing is nothing but the natural dyeing only difference is that they have medicinal property along with good color yield on textile fabric. This medicinal value in cloths will remain intact because dyeing is done without chemicals.



Fig. 1 Ayurvedic herbs

## 2. Working Principle of Ayurvastra

Herbal dyeing is carried out without use of chemicals so that medicinal value remains intact with cloth only. As we all remain in contact with the cloth for 24 hrs i.e. Human skin comes in direct contact with the cloth so its effect is based on the principal of touch. It protects human skin from many diseases by transmitting medicinal value of herbs to skin & into body by transpiration. Our skin acts as barrier but also as a conduit for outside substances to enter the body. When skin comes in contact with ayurvastra the body losses toxins & its metabolism is enhanced. The absorption of drug through skin is a passive process which means the moment of a solute through a biological barrier. From higher to lower phase concentration, the process required no direct expenditure of energy by biological system. The rate of simple diffusion i.e. the degree of absorption from skin depends on the concentration of the gradient on both side of the membrane, lipid/water partition coefficient, molecular weight of solute and surface area. There are seven unique layers comprising the skin, which have distinct function. They are as avabhasini, lohita, shweta, tamra, vedini, rohini & mamsadhara. Among this layer tamra supports the immune system & performs the function of acting as a barrier. If person suffer from skin infection

which means there is imbalance of in this layer.

The most effective time to wear ayurvastra clothing is when the body is most at rest such as during sleep or meditating because this is when the body is naturally healing & reestablishing balance.

## 3. Diseases on which Ayurvastra is applicable

Ayurvastra cloth also provide protection against cancer, skin diseases, respiratory disease, skin discoloration, eczema, psoriasis, hypertension, asthma, allergic conditions also bandages & other medicinal application such as rheumatism, arthritis, blood pressure, diabetes.

The advantage of herbal dyed substrate is that they also impart finishing like antiallergic, antimicrobial, and antiseptic to textile substrate.

## 4. Type of Fabrics required for Ayurvastra

Herbal dyeing applied to textile substrates like raw fibres, woven & knitted fabrics, non-woven fabrics, stitched garments & bleached cotton or even wool & silk and mainly on organic cotton so process becomes totally natural.

## 5. Preparation of Ayurvastra

Every step in the preparation of Ayurvastra cloth and clothing is carefully and precisely controlled. Ayurvastra, as a branch of ayurveda, begins with 100% organic cotton that has been hand loomed – no machine processing, no chemical additives to prepare the cotton fibers for spinning and weaving, no chemical finishes. The organic cotton yarn or fabric is then dyed in a carefully controlled mixture of herbal dyes depending upon the disease or ailment being treated. For diabetes, mimosa pudica (touch-me-not), cumon / cumin seeds, champa flower and shoe flower (hudahal) are combined in the herbal dye. The main herbs used in the herbal dye for arthritis are curry leaves and apocynceae. For skin diseases, the herbs used are turmeric, neem and sandalwood. Dyes for Ayurvastra cloth typically contain between 40 and 60 specifically blended and carefully

prepared medicinal herbs, plants, flowers, roots and barks. The temperatures of the dyes, the duration and number of the dye soaks, the blend of herbs, and even the equipment used are carefully controlled.

### 5.1 Extraction Procedure of Dye from Herbs

Dye extraction is carried out by soaking herbs in water & amount of water is 15-20 times than weight of herbs. After this boil it at 90°C for 1-2 hrs. It is then kept this overnight. So that bigger particle of herbs or any impurity can be settle down. Then filter it to get clear solution. Now this strained solution is ready as herbal dye solution. In case preparing turmeric dye solution temperature kept at 60°C instead of 90°C. Herbal oils like sandalwood oil, eucalyptus oil & neem oil are ready made available in the market. These oils can be applied onto textile substrate by three methods. This includes oil application followed by dyeing, dyeing followed by oil application and combine application of dye and oil.

### 5.2 Application Methods

This herbal dyeing applied to textile substrates like raw fibres, woven & knitted fabrics, non-woven fabrics, stitched garments & bleached cotton or even wool & silk.

#### 5.2.1 Mordanting

Before carrying out dyeing, mordanting is necessary. It is process of giving fast and bright color to the substrate. Substrate is passed through the tannic acid. Myrobalams is natural source of tannin which can be used alone or along with the alum salt. Alum salt is natural source for mordanting. Myrobalans & alum salt are used for color development & color fixing properties. Both can be used at same time or separately.

#### 5.2.2 Dyeing

The substrate is boil at temperature of about 80-100°C for 45-180 min in the herbal dye solution of required color, until color is fully absorbed.

#### 5.2.3 Washing

Dyed substrate is washed to remove unattached dye.

#### 5.2.4 Color Fixation

Dyed cloth is kept for boiling in the solution of jajaku leaves for 45-90 min. this is done to fix the color & to increase the depth of color without using synthetic chemicals. Again wash and dry.

#### 5.2.5 Finishing

Dyed substrate is kept in a rice paste or a sugar to give stiffness & shine to the substrate.

In case of dyeing wool & silk care is taken that they should not over boil the dye solution as too much heating harms the property of the wool and silk.

For dyeing yarns, they kept in the form of hanks & dyed by rotation in the dye solution for the even penetration of dye.

## 6. Product Range of Ayurvastra

There are several product of herbal dyed which are being used worldwide. They are like as follows; burqas for Muslim women, sarees, sleepwear, bed sheets, towels, meditation clothes, coir mats, the traditional flowing dress of Indian women, purdahs or pardaas, herbal mattresses, shirts, baby wears, dress materials, bed linen even Ayur cloth is being utilized for making door mats and carpets.<sup>2,6</sup> This herbal dyeing is carried out in Thiruvananthapuram and Ahmedabad in India as far as this time is concern.

## 7. Market about Herbal Product

World demand for herbal products has been growing at a rate of 7% -30% per annum. The medicinal plants related trade in India alone is approximately Rs. 5.5 billion. W.H.O. (World Health Organization) has forecasted that the global market for herbal products would be worth \$5 trillion by the year 2050 from current level of \$62 billion. Global sales of herbal products are expected to reach \$26.2 billion dollars in 2007. Europe and the United States are the two major herbal products markets in the world, with a market share of 41 percent and 20 percent respectively. It's clear that the future of herbal industry is bright.

The handloom weavers' development society in India is exporting ayurvastra cloth & clothing into the US, Italy, Germany, UK, Singapore, Taiwan, Malaysia, Jordan & Saudi Arabia. Even there is good demand herbal reams from France, Gulf & other countries. They have exported cloths worth Rs. 2 crore to the US, UK, France, Mexico, Saudi Arabia & Japan last year & in the last few months they exported about 4000 burqas to Saudi Arabia. Herbal mattresses, especially with khus khus, are price Rs. 2, 000 each & have become popular because it keeps the body really cool. There is a lot of demand from ayurveda hospitals heritage resorts.

As the herbal fabric may expect to cost four times that of the normal cotton fabric, the focus should be on how to place the product in the niche market.

## 8. Conclusion

For those people who don't like to take medicine or they can not apply cream on body while going outside for them Ayurvastra is like god gift. They just have worn the substrate as per the ailment & get rid of the ailment. Although Ayurvastra may expect to cost four times that of the normal cotton fabric but they have Unique Selling Point (USP). Since people are becoming more and more health conscious, the scope for ayurvastra is endless.

## 9. References

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