



Review Article

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AYURVASTRA: HERBAL COUTURE TECHNOLOGY IN TEXTILE

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ABSTRACT

Ayurveda is a branch of India's ancient form of medicine, Ayurveda. Ayurveda cloth is used by Ayurveda health clinics in the treatment of a broad range of diseases such as diabetes, skin infections, eczema, psoriasis, hypertension, high blood pressure, asthma, arthritis, rheumatism, cardiac problems and as general health products. The Ayurveda reinforces the importance of sustaining the planet for future generations and for the well being of the current generation using age old practices, which do not add up to global warming but helps in minimizing it. It is expected that unique technology and thereby opening up a new area of entrepreneurship, job orientation and economical stability will be welcomed by the society as a whole.

Keywords Ayurveda, Technology, Clothes

INTRODUCTION

Ayurveda is a Sanskrit term meaning life cloth to develop as a branch of Ayurveda. Ayurveda is an ancient technique of dyeing textiles using medicinal herbs. The concept of Ayurveda was practiced in India before the industrialization of the textile industry. Even today, in some parts of south India, ayurvedic herbal dyed clothes are used to carry a new born child, which will act as an antibacterial barrier for the child. There is evidence that these cloths were used as a medium for ayurvedic treatment, as the skin received the medicinal benefits of these herbs through the exposure to clothing, bedding, or coir mats. The Ayurveda concept was revived through a project submitted to The Government of Kerala, South India, by a Weavers Society in Kerala and further developed and researched by the Ayurveda University of Kerala. Since 1992 the Weavers Society has been refining the ayurveda technique to make eco fabrics suitable for modern use and to create different colors depending on the plants or herbs used for various health benefits. Ayurveda fabrics are 100% organic, completely free of synthetic chemicals, toxic irritants and are biodegradable. The color of the fabric is derived from the medicinal preparation only and no other colorants are used, they are dyed manually and completely naturally using medicinal plants and herbs that are wild-crafted and organic, having specific health or wellness benefits proven by both traditional knowledge as well as clinical research.¹

Ayurveda Works

As the body's largest organ, the skin functions as a protective barrier but also as a conduit for outside substances to enter the body. In the same way that the skin may absorb environmental toxins and chemicals from conventional clothing, it has the ability to absorb herbs found in our natural dyes. These herbs release their medicinal qualities into the body and strengthen the skin's ability to block and resist harmful substances.²

Healing Properties

The herb-infused and herb-dyed organic fabrics act as healing agents, absorbed through the skin. Each fabric is infused with specific herbs that can help treat skin conditions such as eczema and psoriasis, the fabric also helps with conditions such as rheumatism, arthritis, blood pressure, diabetes and respiratory conditions, such as asthma. Certain fabrics also contain antibacterial and anti-inflammatory properties. The most effective time to wear Ayurveda clothing is when the body is most at rest, such as during sleep, relaxation or meditation because this is when the body is naturally healing and re-establishing balance. This is why ayurveda cloth is often used for sleepwear, bed sheets, towels, meditation clothes and cotton mats.

Ayurveda Improving Health

The micro-encapsulation technology that embeds tiny capsules into clothing fabrics, when these tiny micro-capsules come into contact with body heat and wear, they slowly release their chemical payloads which can contain fragrances or skincare lotions or other chemicals which might have some topical beauty or medicinal value to the skin that comes into contact with the micro-encapsulated fabric. The use of fabrics and garments to deliver health solutions is actually a very old concept called Ayurveda. Ayurveda is a branch of Ayurveda, the ancient 5,000 year old Indian system of Vedic healthcare. Loosely translated, 'ayur' is Sanskrit for health, 'veda' means wisdom, and 'vatra' is cloth or clothing. Ayurveda clothing is made from organic cotton fabric that has been permeated with special herbs and oils that promote health and cure special diseases depending upon the blends of embedded herbs and oils. Ayurveda cloth is used by Ayurveda health clinics in the treatment of a broad range of diseases such as diabetes, skin infections, eczema, psoriasis, hypertension and high blood pressure, asthma, arthritis, rheumatism, and even some forms of cancer.

Ayurveda clothing is believed to help restore balance within the body's systems and strengthen the immune system. Ayurveda cloth is completely free of synthetic chemicals and toxic irritants and is totally organic, sustainable and biodegradable. Every step in the preparation of ayurveda cloth and clothing is carefully and precisely controlled. Ayurveda, 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 or cumin seeds, champa flower and shoe flower are combined in the herbal dye. The main herbs used in the herbal dye for arthritis are curry leaves. For skin diseases, the herbs used are turmeric, neem and sandalwood. Dyes for Ayurveda 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. Environmentally friendly processes are adopted for making ayurveda cloth and clothing, in which the entire process is organic. The cloth is bleached with cow's urine, which has high medicinal value. The dyeing gum too is herbal. It does not pollute like synthetic dye and the waste is used as bio manure and to generate bio gas. Many Ayurvedic doctors consider cow's urine to be highly beneficial in balancing an individual's 'doshas' or basic constituents of an individual's physiology and psychology, strengthening the immune systems and as an elixir in giving life. By coming in contact with ayurveda, the body loses toxins and its metabolism is enhanced. For preparations of coir mats, the fibers are soaked in Ayurveda dyes and then woven into coir mats. Ayurveda cloth is also being used for sarees or saris, the traditional flowing dress of Indian women, and in purdahs or pardaas. The spread of Ayurveda and Ayurveda into other cultures and regions of the world express the growing interest in more traditional and natural healthcare systems that are based upon restoring balance and health through natural methods rather than through Western medicines. Because of worldwide interest in Ayurveda, companies such as Ayurveda online are starting to offer products over the Internet. Ayurveda can really cure diabetes, skin infections, eczema, psoriasis, hypertension and high blood pressure, asthma, arthritis, rheumatism, and even some forms of cancer. Kerala has a worldwide reputation as being a center for Ayurveda and Ayurvedic treatment. The State of Kerala Coir Department reported on a six-month clinical trial initiated by the Ministry of Health at the Government Ayurveda College in Thiruvananthapuram India on patients suffering from rheumatism, allergy, hypertension, diabetes, psoriasis and other skin ailments. For the study, all clothes, bed linens and mattresses for the resident subjects were dyed in Ayurveda herbs and the walls, floors and ceilings in the patient or subjects' rooms were lined with Ayurveda coir mats so that the patient were surrounded by Ayurveda

medicated materials. Based upon the successful results of this clinical trial, the Kerala State Government has initiated a more in depth and expanded study into the possible effectiveness of ayurveda in other diseases including some cancers. Conventional Western medicine and traditional Eastern medicine recognize the skin as being the body's largest organ. The skin can act as a barrier but also as a conduit for outside substances to enter the body. Many environmental toxins and chemicals in conventional clothing are assimilated into the body through the skin. Anything which can improve the skin's natural ability to block and resist harmful chemicals and toxins from entering the body will be beneficial to health. Ayurveda identifies seven unique layers comprising the skin. Each layer has a distinct function and supports the layers about it. Starting at the outermost layer, the seven layers defined by Ayurveda are: Avabhasini, Lohita, Shweta, Tamra, Vedini, Rohini and Mamsadhara. The fourth layer, Tamra, supports the immune system and performs the function of acting as a barrier. According to Maharishi Ayurveda, "Skin infections reflect an imbalance in this layer." If ayurveda cloth and clothing can improve the skin's ability to act as a barrier to external and environmental toxins, the wearer's health might be improved. Additional independent research is needed to test this assumption. The concept of dyes that are natural and improve the wearer's health is fascinating, but one need to wait for more research to determine the effectiveness of Ayurveda before one rush to local organic clothing store or Google the Web looking for suppliers.³

Ayurveda - A Healing Herb-Dyed Cloth

Cloth infused with the herbs of traditional Indian medicine is becoming increasingly popular as the country's stressed urban workers seek cures for conditions such as insomnia and eczema. Wearing a special shirt is claimed to cure itchy or sore skin, while sleepless nights can be taken care of by putting an herb-infused sheet over your mattress. The herbs are selected according to the traditional Indian medicine known as Ayurveda, with the infused cloth known as ayurveda. By selecting 28 medicinal plants i.e indigo, and mix with the plant turmeric etc based on ayurvedic texts and theory, then they are dip in a natural cotton into it to make sleeping cloths,"

Traditional History

According to the history, clothing as means to protect and heal goes back to the Rigveda, an ancient and sacred Hindu text composed of Ayurvedic scriptures, Charaka Samhita and Sushruta Samhita. Until about 100 years ago, they said, people in many parts of India were still using various forms of natural dyeing, in which people repeatedly dipped their clothing in an herb-based preparation after each wash. People in India have also used plants for coloring fabric during the annual festival of colors, known as Holi, because the dyes are close to nature and toxicity free. At some point use after use, wash after wash, dipping after dipping the color and value would hold. But it was seen just as another part of living harmoniously with the environment. Ayurveda is not referred to in the ancient or contemporary classics of Ayurveda. Instead, some references mention certain

plants that have a therapeutic result when applied to the skin, even without concurrent oral administration, by working through a mode of action called 'Prabhav' which means effect.

Dyeing Fabric with Medicinal Ayurvedic Plants

Due to its fertile soil and temperate climate, the southernmost Indian state of Kerala is known as a hub for medicinal plants used in the traditional medicine system of Ayurveda. Pockets of traditional living that used to exist have eroded a lot over the past 20-25 years. During the early 1990s, the Kerala weaving industry went through an economic crisis. But the overall demand for their products from within India has had slow progress. The Indian market for a large part is busy adopting Western tastes and ideas influenced by big name brands and media influence, Vastra plans to expand its initial offering of shirts and bed sheets to include other apparel items and more fabric varieties to cater to the retail and wholesale market.⁴

Ayurveda Dyeing Process

To create the subtle yet beautiful colors of their ayurveda fabrics, workers begin by bleaching the all-natural cotton or yarn using a cow urine-based preparation, which is traditionally used in rituals to bathe Hindu idols. They dry the fabric in direct sunlight and then apply a gumming substance, containing plants like *Aloe vera* and camphor (*Cinnamomum camphora*) and then dip it into a concoction called 'kashaya' that contains up to 40 medicinal plants, one of which is the primary herb selected for its specific wellness benefits. The gumming substances help the 'kashaya' take hold, giving the fabrics their colors. The fabric is left to dry for 3 days and then kept in a room for 15 days for "seasoning," a period of time that allows the fabric to dry completely and the 'kashaya' to settle in to the fabric. It is then washed and dried in the shade and kept for seasoning for another 15 days. "It is a process that requires manual labor that involves handling large pieces of fabric that get heavy when wet dipping and wringing. It requires attention and focus to ensure standards, like timing and consistency."

Ayurveda Protect Environment

A study found that major portion of chemical are used by textile industry. This chemicals pollutes water, land, air and destroy nature but Ayurveda fabrics are manufactured without any chemical process and biodegradable and eco friendly. The method used in the production of Ayurveda is purely based on Ayurveda, the science of life and longevity. Ayurveda is sprouted in the pristine land of India. It combines the profound thoughts of medicine and philosophy. The Ayurveda garments are made out of yarns of organic cotton fabric infused with organic herbs and medicinal plant extracts that promote health and cure special diseases depending on the blends of herbs and oils included in it. Ayurveda is devoid of any toxic chemicals and irritants and is absolutely organic and biodegradable. The clothes are bleached in cow's urine, which has many medicinal values. In the science of Ayurveda gomuthram (cow's urine) is identified to be highly beneficial in balancing an individual's 'doshas' i.e. the basic constituent of an individual physiology. The colors are obtained from the herbs used and not from any artificial dyes. The roots,

flowers, leaves, seeds and barks of hundreds of herbs are used to make these colors. The clothes are then dipped in the dyes in a controlled temperature and environment. Several experiments have been conducted to ensure the effectiveness of Ayurveda and it has been proved that a marked improvement had been witnessed in patients suffering from eczema, psoriasis and rheumatism after using bedding, rugs and towels made from Ayurveda for one month. They are also used in the treatment of a broad range of diseases such as diabetes, skin infections, hypertension and high blood pressure, asthma, arthritis, and even some forms of cancer. Ayurveda helps to restore the balance within the body's systems and reinforce the immune system. Ayurveda cloth is often used for sleepwear, bed sheets, towels, and meditation clothes. Coir mats are also made of this method for which the fibers are soaked in Ayurveda dyes and then woven into mats.

AYURVEDA MANUFACTURES ECO FRIENDLY CLOTHS

Ayurveda aims at manufacturing 100 percent organic and chemical free fabrics and attires. By doing this Ayurveda protects the planet's natural resources from the clutches of harmful toxic chemical wastes used in the production of agriculture and textiles. It also aims at reviving the ancient Ayurvedic dyeing technology in its fabrics. The term Ayurveda has a significant meaning; 'Ayur' refers to health and 'Vastra' refers to attire. The medicinal herbs include turmeric, tulsi, neem, khus-khus (vetiver), sandalwood and indigo. Further all these herbs are blended with balancing herbs to make delicate colors that remain everlastingly in the fibers. Ayurveda dyeing is applied on all natural fibers like cotton, silk, linen, wool, coir, hemp, nettle, bamboo to make eco friendly textiles. Each herb caters a different medicinal property. Likewise a fabric with the properties of tulsi helps fight against allergies and toxins and turmeric, which has anti-inflammatory and anti-bacterial properties protects against skin infections. In order to produce Ayurveda fabrics, the cloth is instilled into a specially prepared Ayurvedic Kasayam containing more than 30 herbs. The herbal properties from these fabrics are then released on the body by preventing various infections and diseases. Ayurveda fabrics were also experimented on patients suffering from diseases like eczema, psoriasis and rheumatism which showed a progress in them.⁷

Ayurveda is the Doctor of the Future

The doctor of the future will give no medicine, but will interest his patients in the care of the human frame, in diet, and in the cause and prevention of disease. Two of the oldest sciences known to mankind come together. It's the amalgamation of Ayurveda- the science of increasing the longevity of a person and making of fabrics textiles. Man has used textiles from a very early period in various forms like ropes; clothes etc. but in general textiles to the layman is a fabric. The unlikely yet amazing combination of these two sciences has resulted in Ayurveda. Ayurveda, the name given to a whole new concept of natural clothing, has the fabric yarns infused with plant extracts and herbs. Developed under the aegis of The Handloom Weavers Development Society a non-profit

organization, Ayurvastra claims to rid people of many diseases by regular use of these clothes.⁸

Herbal Products

- **Cotton** - Bed sheets, night dresses for kids men and women, Dyed fabrics for any textile material
- **Silk** - Beds sheets, night dresses for kid's men and women, Dyed fabrics for any textile material.
- **Wool** - Yoga mats and prayer mats, Dyed fabrics for any textile material
- **Jute** - Yoga mats and prayer mats or with mixed yarn
- **Coir** - Carpets, Rugs,
- **Handloom** - Dhotis, Shawls etc
- **Packing** -Each of the above products are packed in eco-friendly gift boxes.¹⁰

Market Potential

- Chemical dyes used in the textile industry have impact on human immune system.
- Chemical contents in textiles play a major role in degradation of human skin, absorbs deep into the human system causing various health problems.
- As Ayurvastra materials are totally chemical free and environment friendly the huge impact it can have in the textile industry is beyond explanation.
- Ayurvastra products not only prevent the diseases but also perk up the immune system in human body.
- A healthy world with an earthy remedy.
- This is a unique technology and thereby opening up a new area of entrepreneurship, job orientation and economical stability.

Working Principle of Ayurvastra

- Herbal dyeing without chemical
- Protect human skin from many diseases by body transpiration
- Skin comes in contact with "Ayurvastra", body losses toxins & its metabolism enhanced
- Absorption of drug through skin is passive process i.e through barrier
- The most effective time to wear ayurvastra is during sleep or meditating

Diseases on which Ayurvastra is applicable

Cancer, Skin diseases, Respiratory diseases, Skin discoloration, Eczema, Psoriasis, Hypertension, Asthma, Rheumatism, Arthritis, Blood Pressure, Diabetes.

Fabrics required for Ayurvastra

Raw fibers, woven & knitted fabrics, non woven fabrics, stitched garments, cotton, wool & silk.

Preparation of Ayurvastra

- Need 100% organic cotton, hand loomed.

- Herbal dyes depending upon the disease are used.
- For diabetes, mimosa pudica (touch-me-not), cumonn or cumin seeds, champa flower and shoe flower are combined in dye.
- For skin diseases, the herbs used are turmeric, neem and sandalwood.¹¹

CONCLUSION

Scope of Ayurvastra is endless and it is the way to keep people healthy. Ayurvastra principal is used to maintain good health and adopt a healthy way of life. Ayurvastra has been receiving increased awareness from many parts of the world. National government ministries and state government within India consider. Ayurvastra as a way to revitalize and increase the market for their handloom industries and to create a niche for their eco-friendly handloom fabrics. The team in India hopes the partnership will help build a platform for education on ayurvastra as an alternative to synthetic and synthetically dyed fabrics, and to increase business that results in a stable economy providing a livelihood for hundreds of people.

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