

Design Resource

Charaka Cotton Weaving

Making Charaka Cotton Products Using Natural Dyes

by

Prof. Bibhudutta Baral, Mr. Srikanth and Mr. Mahesh

NID, Bengaluru

Source:

<http://www.dsource.in/resource/charaka-cotton-weaving>

1. Introduction
2. Tools and Raw Materials
3. Bleaching
4. Cold Dyeing
5. Hot Dyeing
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Introduction

Charaka is located in near Sagara in Shimoga district of Karnataka. A self-help group established by local women and named after the place “Charaka”. The unit started with small group of 35 people and only 3 weaving machines. Now the unit employs more than 400 people working in different sections like dyeing, weaving, tailoring, embroidery and block printing.

The raw material-Cotton is provided by NHDC- National Handloom Development Corporation Limited. The unique attribute of Charaka is usage of natural dyes in the entire process except block printing. Block printing is done with chemical colors presently. However, the artisans are experimenting with natural dyes.

There are around 27 Charaka units in all over Karnataka engaged in producing variety range Charaka products. Lot of employment opportunities are provided to youngsters, to encourage their ideas in order create new design patterns. The production process happen more in summer season as winter and rainy season do not support for weaving and dyeing processes. The cluster also has individual weaving families who mainly engaged in weaving.



Exotic floral motif printed on Charaka fabric.



Pure cotton yarn used in weaving process.

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Artisan engaged in natural dyeing process.



Stacked cotton undergoes several stages of production process.



Weaving is done in basic frame looms.



Women engaged in stitching process.

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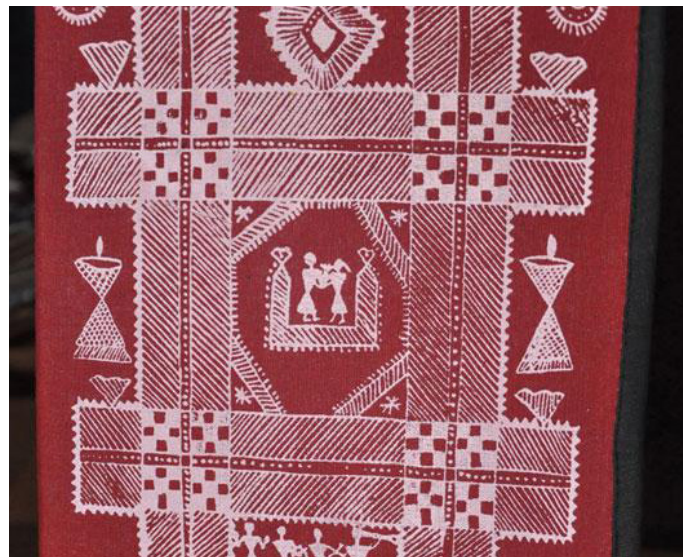


Finished product is being packed.



Products ready for marketing.

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Products ready for marketing.



Traditional red and green bangles are must for bride during wedding.

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Tools and Raw Materials

The Materials used in production process are mainly natural and procured from local forests mainly dye colors. Few natural colors used for dyeing are imported from other places. Colors used in block print are chemical colors. Basic core material used in process is cotton procured from Salem and Davanagere and also from government for subsidiary prices.

Tools used:

- Spinning wheel.
- Fly-shuttle used in weaving process.
- Simple frame loom.
- Huge containers used in dyeing process to mix the color.
- Earthen pots to mix the indigo dye.
- Sewing machine for stitching.
- Wooden blocks for printing the design.

Raw Materials:

- Pure cotton Yarn.
- Natural dye colors like pomegranate skin for yellow.
- Natural indigo for blue.
- Jaggery and iron is mixed and fermented for dark black color.
- Indigo, haldekai, spatika, Rangamale are other natural materials for dye colors.
- Manjista kaddi for pink and orange.

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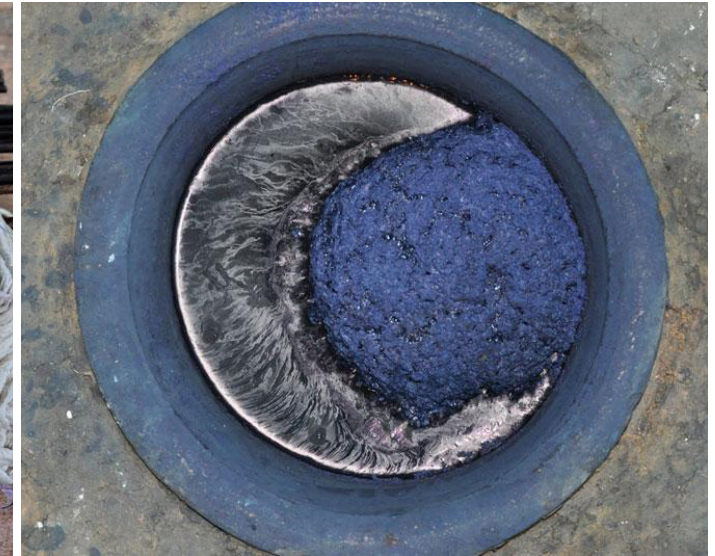
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Cotton bundles.



Blue indigo cake made using natural materials.

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Different natural colors prepared and stored.



Soap oil is poured into boiler for cotton cleaning process.

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Chatte Bija-seeds used in preparing indigo color.



Traditional process of filtering colors.

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Iron filing and Jaggery mixed to obtain black color.



Dye colors are mixed and boiled in metal container.

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Spinning wheel used to wind yarn.



Traditional frame loom.

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Collection of wooden blocks.



Chemical fabric colors used while block printing.

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Wooden blocks are used to print the design on fabric.



Block printing area at Charaka.

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Sewing machines used in stitching process.

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Bleaching

Pure cotton bundle is first cleaned and bleached before coloring it to clear impurities and also to obtain bright white cotton yarn. Huge boilers are used to do the bleaching process. Initially, water is boiled in boilers and soap oil is added to the boiling water. Now the bundle of cotton yarn is boiled in the solution and removed. The cleaned cotton is again dipped in hot water and dried. The cleaned cotton is sent for dyeing unit for coloring process.



Soap oil is mixed to boiling water.



Cotton bundle is dipped in boiling solution.

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Cotton is boiled continuously for two hours.



After chemical treatment, cotton is washed in hot water.

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Washed cotton is dried in sunlight.

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Cold Dyeing

Cold dyeing process is done in a typical manner using earthen pots with natural color materials. Cold dyeing area is set permanently. More than half part of earthen part is buried and remaining part is kept open. The basement of clay pot is covered with goat dung to maintain the temperature.

Blue Color:

For dyeing indigo blue, Madharangi soppu- leaves of Madharangi plant are dried for one week. Then the dried leaves are soaked in water. These leaves are kept in a mould to make solid cake. The cake is placed in buried pot. Now the other extracted solutions like filtered Soudu mannu (sand) solution, Chatte Bija-seeds solution which is extracted by boiling Chatte Bija seeds and limestone water are added to the pot. Bleached cotton bundle is dipped in blue color and kept for one hour for the better color application. Colored cotton is initially dried for two days and again washed in cold water to make the threads soft.

Red Color:

Red color is obtained by adding Adike-beetel nut, Soudu mannu (sand) solution and limestone water.



The yarn is placed in blue dye color.



Yarn is carefully dipped to dye partially.

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Yarn is dipped and allowed for several hours for coloring.



Dyeing area.

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The dyed yarn is washed and dried.

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Hot Dyeing

Hot dyeing process is done by separate dyeing unit. Pure natural dyes are used to extract dye colors. Materials like pomegranate skin-Daalimbe sippe is used to get yellow color, jack wood, madder root, are some other dye materials used to get shades of yellow and red. Jaggery and iron flakes are mixed and fermented for months to get dark black color. This color is extracted and boiled to get black color. During dyeing process, the extracted color is mixed in boiling water and cotton is dipped. The cotton is continuously dipped in color solution for better color application. Colored cotton yarn is dried and sent to the weaving process.

Indigo, Haldekai, Spatika, Rangamale, Manjista kaddi are the other natural dyes processed and used in dyeing process.



Powdered pomegranate is mixed in water and filtered to extract color.



Color solution is poured in container to dye yellow color.

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The yarn is dipped in boiling color solution.



Traditional method of dyeing.



The yarn is kept in boiling solution for 30 to 40 min.



Colored yarn is washed in normal water to remove extra color.

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Excess water is removed by squeezing.



Colored yarn bundles of different color are stacked.

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Process

Charaka weaving unit has different sections such as dyeing, winding, warping, and weaving.

Winding:

Once the yarn is colored, it is sent to the winding or spinning process. Cotton yarn is spun using spinning wheel to prepare spools and spindles.

Preparing Warp:

Warping is prepared using warping machine. Cotton spools are fixed to the rack of warp machine. The threads from each spool is taken and reeled to the warp beam. Once required length of cotton yarn is reeled on the warp beam, it is taken out and fixed to the loom to start weaving.

Weaving:

Weaving is done on the frame loom. The loom has very basic structure and it contains warp beam, reed, weavers beam and pedal system. The yarn threads of warp passed through the reed and connected to the weaver's beam. When weaver starts operating loom, the fly- shuttle passes through the warp threads horizontally to process weft. Weaved cloth is wound on weavers beam.



Cotton yarn is reeled onto spindle.



The spools are placed on warp machine to make warp.

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The threads from spool are reeled on warp beam.



Breakages are checked for.



Count of the cotton thread increased to maintain quality.



The warp is prepared and the ends are knotted.

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The warp beam is ready to load into loom.



Each thread from the warp is taken and knotted to the weavers beam.



Warp threads are connected to the weavers beam to start weaving.



The structure of frame loom.

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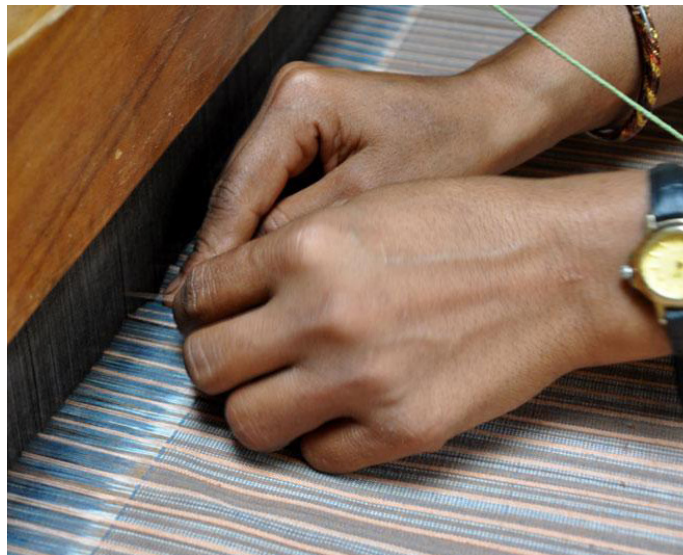
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Women involved in weaving passes.



Continuous pedal movement required to operate loom.



Warp threads are joined with weft threads through shuttle.



Colored yarn is washed in normal water to remove extra color.

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Block Printing and Tailoring

Charaka has done many value added techniques like Block printing, stitching/ tailoring and embroidery to increase the range of products as well as marketing. They have designed few unique motifs on the wooden blocks to print on the cotton fabric. Printing unit uses chemical dyes to imprint the design on the fabric. Few distinct motifs include, betel leaf, potter with wheel and scattered flowers. The printed material then is sent to the tailoring unit to stitch the fabric. Different ranges of stitched clothes for men, women and kids are made in the unit. Embroidery is done to enhance the appeal of the final products. Materials like beads, pearls, quills and sequins are used to create beautiful motif designs on the clothes.



Wooden block is dipped in color to start printing.



Different blocks are used to print different designs

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Artisan engaged in printing process.



The printed cloth is ready for stitching process.



Cloth is cut as per the final product requirement.



Women are mostly involved in production process.

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The cloth is being stitched to make shirt.

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Products

Charaka's initial production was limited to bags, purses and kids wear. Now the unit has increased their production by producing, shirts for men, kurtas and other lifestyle accessory products. Artisans of Charaka introduced many innovative ideas to meet the market trends. The weaved fabric is not only stitched but also block printed and embellished with semi-precious beads and sequins to enhance the richer look of the final product. Artisans learn new design skills and implement as per the market needs. Embroidery is one of their latest creative ideas which are done for men's range as well as women's range like Sherwani.

The range of men's and women's stitched products include skirts, kurtas, hand bags, purses, tops and sherwani. Men's range includes shirts, long and short kurtas, and trousers. All the products are especially marketed within Karnataka in cities like Bangalore, Dharwad, Mysore, and Shimoga at their retail outlets with brand name DESI.



Wooden block is dipped in color to start printing.



Different blocks are used to print different designs

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Artisan engaged in printing process.



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This documentation was done by Prof. Bibhudutta Baral, Mr. Srikanth and Mr. Mahesh at **NID R&D campus, Bangalore.**

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