

Design Resource

Cotton Sari - Mangalagiri

The Art of Weaving

by

Prof. Bibhudutta Baral, Mr. Antony William and

Ms. Shruti K.

NID, Bengaluru

Source:

<http://www.dsource.in/resource/cotton-sari-mangalagiri>



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Introduction

Mangalagiri is a town of Guntur District of Andhra Pradesh, India. It is situated in the outskirts, 12 Km away from Vijayawada town. This place is one of the eight important Mahakshetrams (sacred places) in India.

The town is popular not only for its temple, but also for its elegant cotton sarees and dress materials. Mangalagiri sarees are simple cotton handloom sarees with broad borders woven with gold or silver threads. These sarees have dense weaves in exotic colors. Traditional Nizam designs are exclusively used in pure Mangalagiri cotton saris. Various motifs like leaf, mango, parrot, gold coin, rekhu adorn south pure cotton saree. Today trend has updated in such a way that printing work and embroidery designs are introduced on Mangalagiri cotton sari.

Many weavers' families belong to Padmasari community. Some of them have their shops and some families do the work from home. Earlier in olden days more than 12,000 looms were used for weaving. But at present only 2,000 looms are in use because of labour problems.

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Artisan involved in cotton reeling process.



Cotton is richly dyed in traditional colors and allowed for drying.

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Skilled artisans maintain quality in every phase of dyeing.



Experienced weavers family helps each other during warping process.



Bigger warping machine is locally called Aasu.



Pure cotton is available in and around areas of Mangalagiri.

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Artisan carrying dyed cotton for next process, which is reeling and warping.



Richly woven saris of Mangalagiri well known for line patterns.



Artisan engaged in sizing process.

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Zari-Golden thread is weaved along with cotton especially in border and pallu.



Group of senior artisans busy in weaving process.



Combination of two or more colors in border invented to meet latest trend.

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Tools and Raw Materials

The raw materials are purchased from Vijayawada and Chennai. The color price starts from Rs. 300 per kg. Some artisan use natural colors, which they make it at home, or purchase it from Vijayawada or Chennai.

Equipment:

- Weaving loom : Traditional weaving loom is used for weaving process.
- Warping wheel : It is used to prepare lengthy warp threads.
- Reeling machine : Is used to make Spools.
- Fly shuttle : Is used to load the spindle while weaving.
- Chakra : A spinning wheel used to make spindle.

Materials:

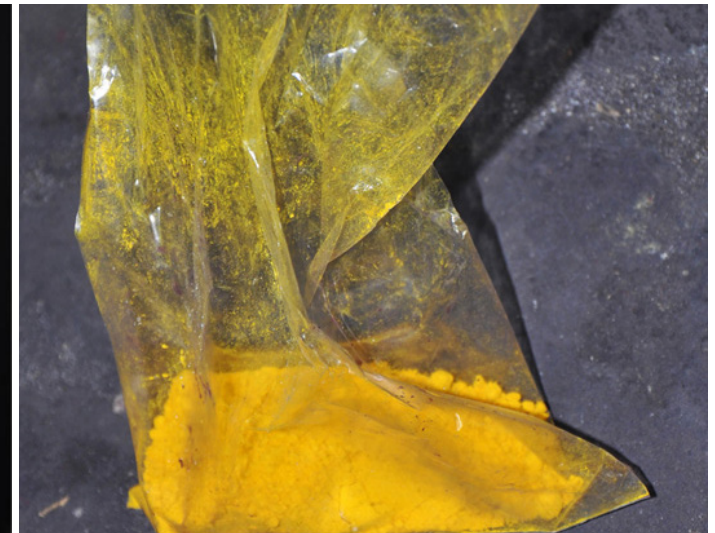
- Cotton Thread : Pure cotton threads are used in weaving process.
- Dye colors : Used to dye the cotton threads as per requirement

Chemicals:

- Boiling : While boiling the raw cotton costic acid and soap powder is used.
- Washing : Sodium, Alum, Costic acid and Dhnavakam are used in washing process.
- Dyeing : Hydro sulphite, color and costic acid are used for dyeing.



Pure cotton thread bundle.



Dyeing color.

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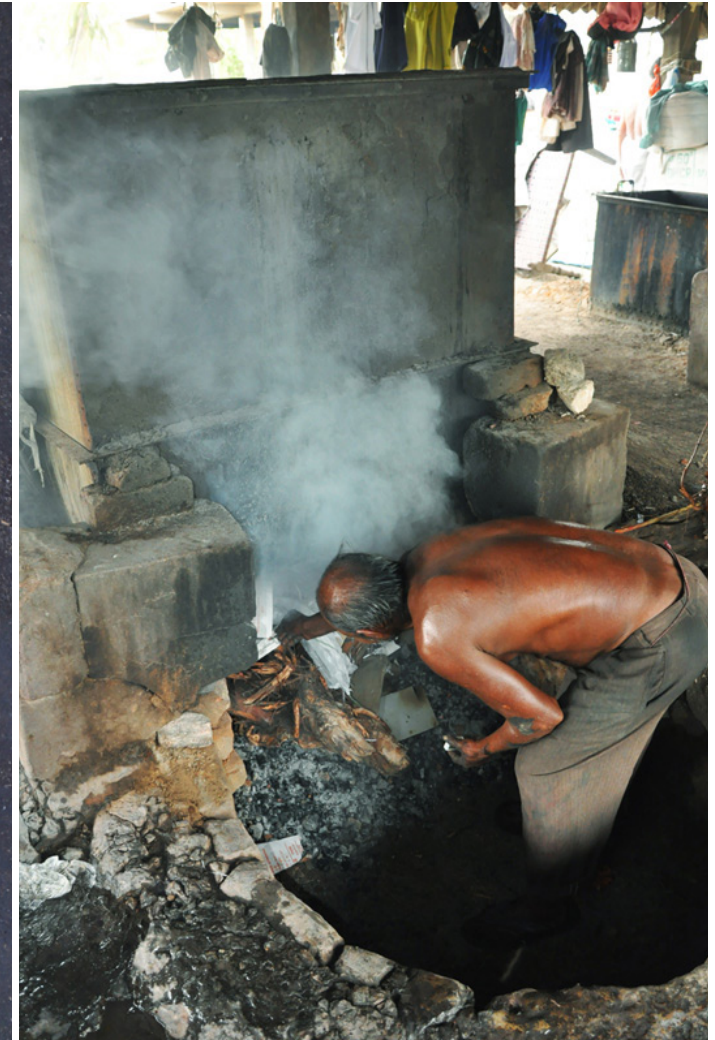
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Soap powder used in washing process.



Traditional way of dyeing process is still in practice.

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Diluted acid is used in washing process to give shine to the threads.



Metal handles used to steer the cotton thread while dyeing.



Reeling machine used to reel the cotton thread on spools.

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Local made spools.



Warping wheel.



Bamboo sticks used to insert between the warp threads.

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The view of using bamboo sticks while warping.



Rice starch used to strengthen the thread.

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Natural brush is used to apply coconut oil on threads for softness.



Weaving pit loom.

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Dyeing

This is an important and significant step in Mangalagiri saris production. First the yarn is boiled in a mixture of water, costic acid and soap at an accurate temperature for 3 to 4 hours and dried overnight. The dried yarns are taken for the coloring process. They are boiled in a mixture of Hydrosulphite, color, water and costic acid, which is mixed in a boiler. The most important aspect in this process is the mixing of colors, which will give unique and durable color to the fabric. The yarns are dipped in the required color and the worker goes on turning the yarn so that the color is evenly mixed in the yarn.

After coloring, the yarn is sent for washing. They are first washed in water with chemical (sodium, alam, costic acid and dharvakam) in it. These chemicals helps in sustaining the color and make the yarn look in rich color and shiny. They are again rinsed in plain water and kept for drying in the sun. Dhamyanti and Chilka Pacha color are dyed twice to get the luster's rich color.

If the weather is normal then they, take half or one day to dry. If it is raining the fabric takes 2 to 3 days to dry as they will be dried in room temperature. The yarn is bundled and packed after drying and sent for the next process.

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Plain cotton thread is boiled in water to clean and kept for drying.



Dyeing color is mixed with hydrosulphite and costic acid is mixed in boiling water.

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Cotton threads are being dyed.



Thread bundles are rotated for proper color application.



The excess water is squeezed out.



Cotton bundles are dyed twice to obtain darker color.

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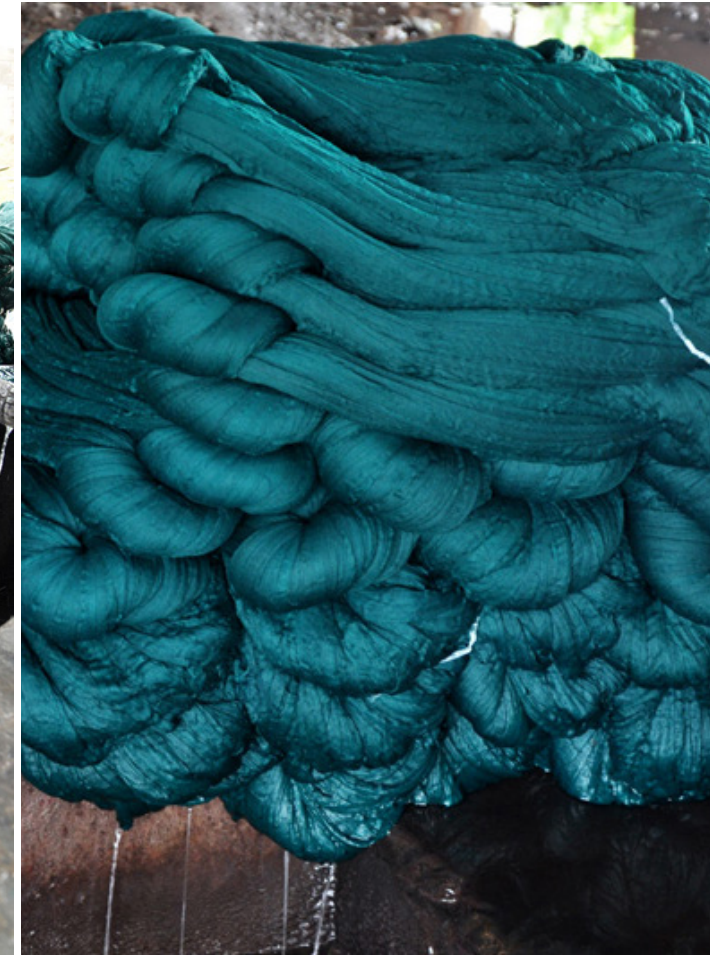
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After dyeing, the colored threads are rinsed in normal water.



Rinsed threads are kept ready for cold dyeing to obtain different color shade.

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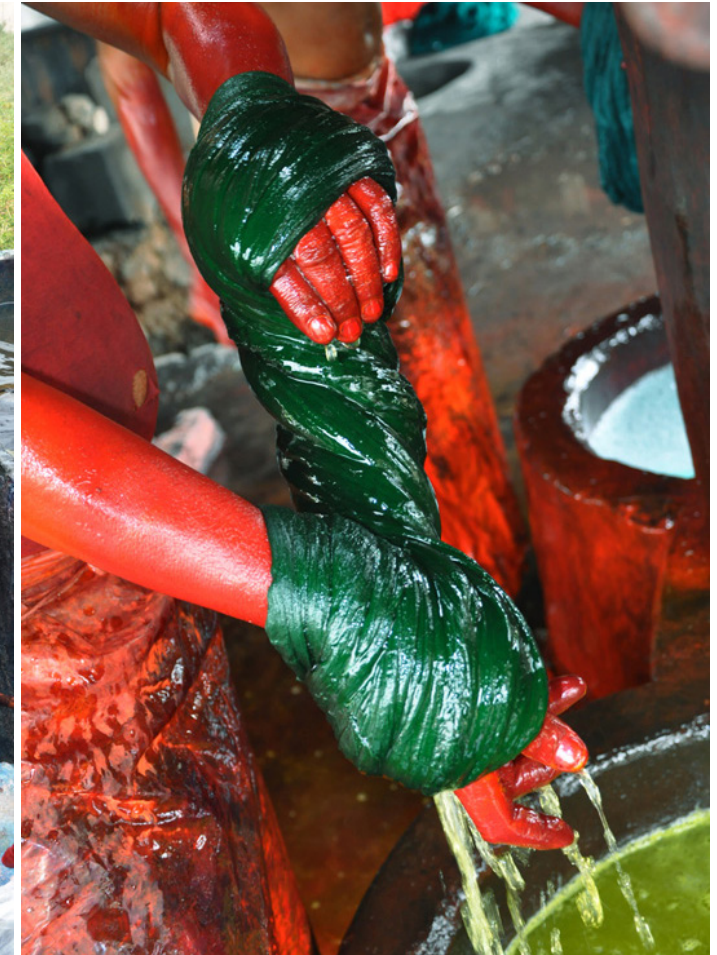
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Yellow color powder is diluted with water.



Green colored thread is again dipped in yellow color to obtain different shade of green.

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Finally, the colored threads are washed in soap and acetic acid solution for longer durability of color.



Excess water is squeezed out before drying.



Dyed cotton threads dried in sunlight.

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Spinning

The cotton yarn after dyeing is brought for spinning process. Bundle of yarn is placed on the spinning wheel machine. The cotton strand is reeled to spools and the wheel is operated. The workers simultaneously keep joining the broken strands for continuous reeling of the threads. These spools are then sent for warping process. The yarn is placed on traditional Charka-spinning wheel. The yarn thread is transferred onto spindles. These spindles are later used to insert into fly-shuttle for processing weft during weaving.



Colored cotton is ready for spinning.



Yarn bundle is placed on wheel of automated spinning machine.

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Cotton yarn is transferred onto spools.



Artisans busy in spinning cotton.



Senior artisan engaged in traditional spinning process.

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Spinning is done to prepare warp and weft threads.



Yarn is being spun on spindle.



Colorful spindles are used in weaving process for weft.

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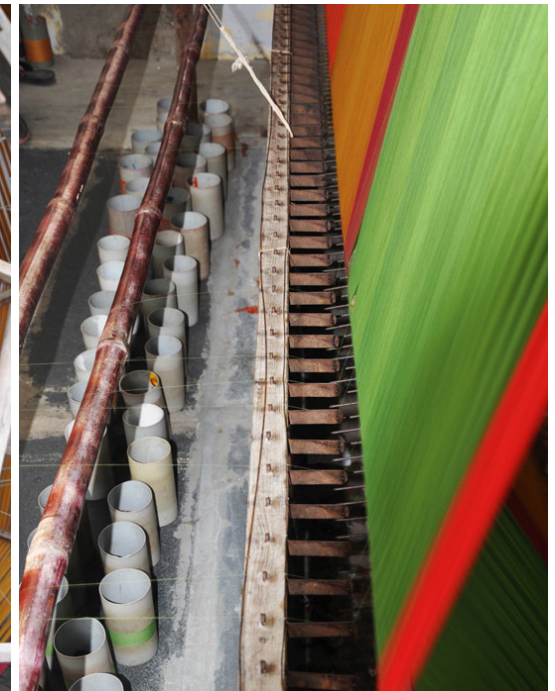
Warping

Warping is the special and important process of Mangalagiri sarees. The warping is carried out in streets preferably in the early morning, so that the color of the silk yarn does not fade. First the multi-ply spools are fixed to the warping machine (warping wheel), and the yarn is reeled on the warping machine. This Process is locally known as Assu.

After Assu process, the length of the yarn is removed from the warping wheel and tied between two poles and it is stretched. Entangles in the yarn are checked and the breaks are knotted. Bamboo sticks are inserted between the threads into the warp, as it is easy to trace the entangled cotton threads. Starch is sprayed on the threads. Starching is done so that the color in the yarn will get more permanent in nature and gives the yarn a polished look. Starching process is repeated 10 to 12 times, which makes the thread thick and strong. Starching also acts as gum while weaving, which helps the threads to interlock intensely. After starching the yarn is stretched and the strands of yarn is passed through the reeds and then rolled on an iron rod, which is fixed in loom to weave.



Cotton threads are rolled on the warping wheel.



Threads are pulled from multiple spools and rolled on the warping wheel.

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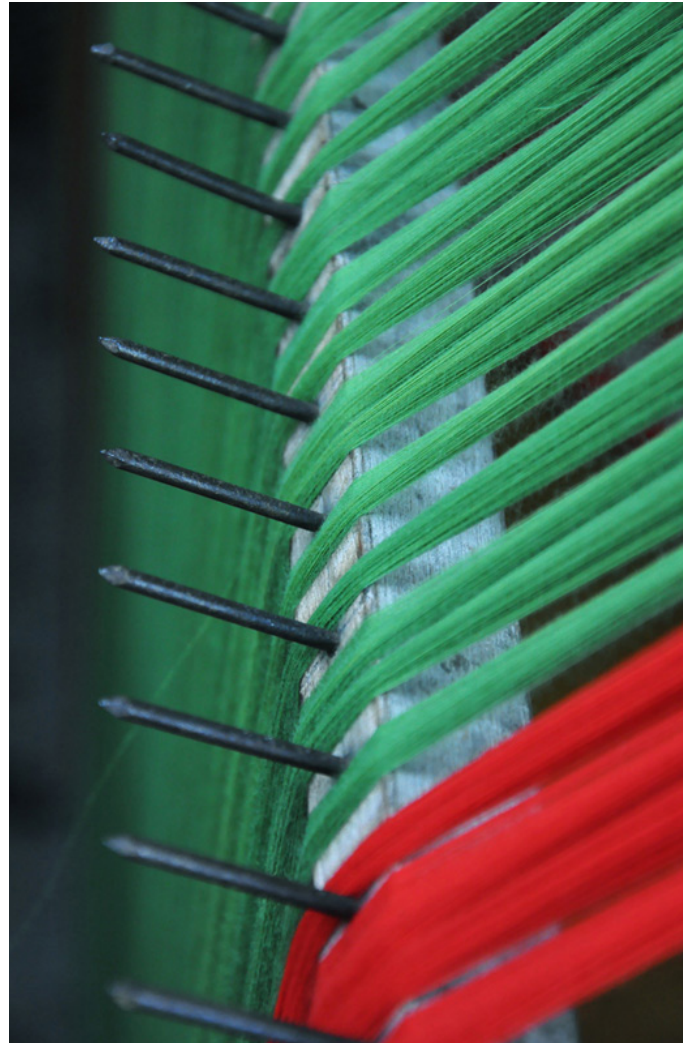
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The quality of the fabric depends on number of threads taken in sari.



Three colors of sari yarn are reeled simultaneously to save the time.



Knots and tangled threads are cleared to ensure smooth weaving.

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Warped threads are tied and bundled.

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The bundled threads are sent for sizing process.



Cotton yarn is stretched and tied between two poles.

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Bamboo sticks are inserted between the cotton threads.

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Breakages are joined.



Starch is sprayed on the warp threads.

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Application of starch strengthens the thread.



Coconut oil is spread using a brush for smoothing the threads.



Cotton thread is reeled and kept for weaving process.

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Weaving

The prepared yarn iron rod is fixed to the weaving loom and weaving process is started. The weaver interlaces the cotton threads of warp. The shuttle passes through the opens formed when the pedal is operated to interlock the threads of warp. Artisan use different colors of contrasting threads while weaving to create designs. The proton of woven cloth is wounded to the wooden beam, which is located in front of the weaver. After weaving of 6 yards of fabric, the portion of unwoven warp is intentionally left before and after the sari weaving, which is later knotted for fringe. It takes nearly 2 to 3 days to complete one sari. The length of 3 saris warp is loaded into the loom at a time.



Initially, the warp threads are connected to the weavers beam.



Artisan adjusting the warp threads.

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Fly-shuttle with spindle passes through the warp.



Once the shuttle is passed, the beater is pulled to join the threads.



Women artisan helps in spinning, warping as well as weaving.



Few broken threads in warp threads are always joined and weaving continued.

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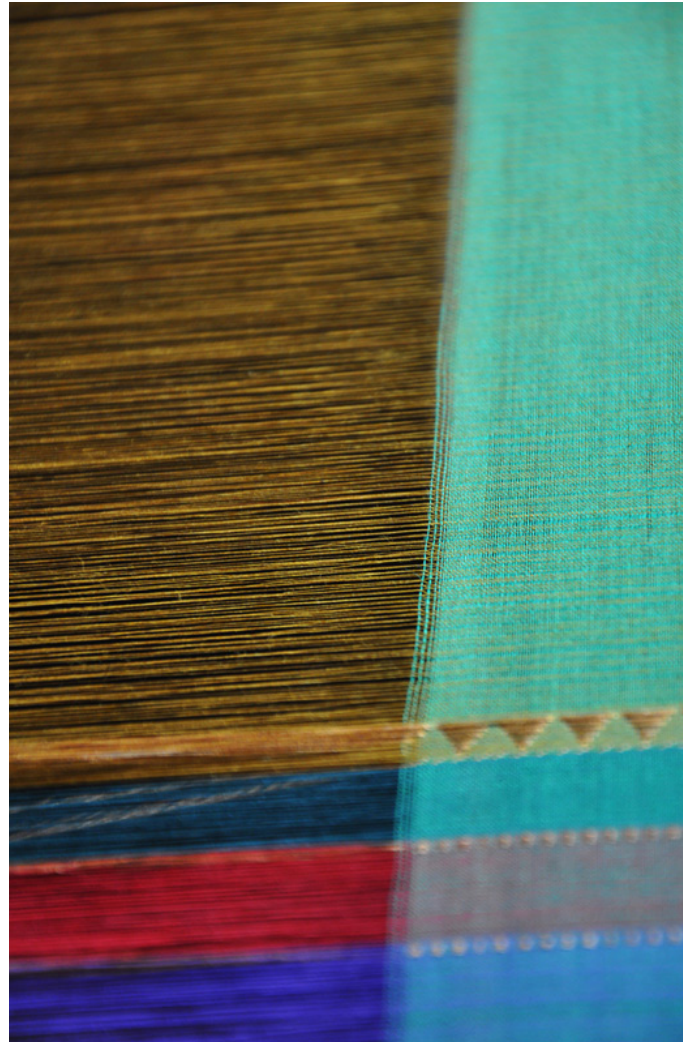
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Dual shade in the sari is obtained by joining different colors of warp and weft threads.



Woven cloth is slightly pulled and clamped by brass pins for stiffness.



View of brass pins clamped to woven part of cloth.

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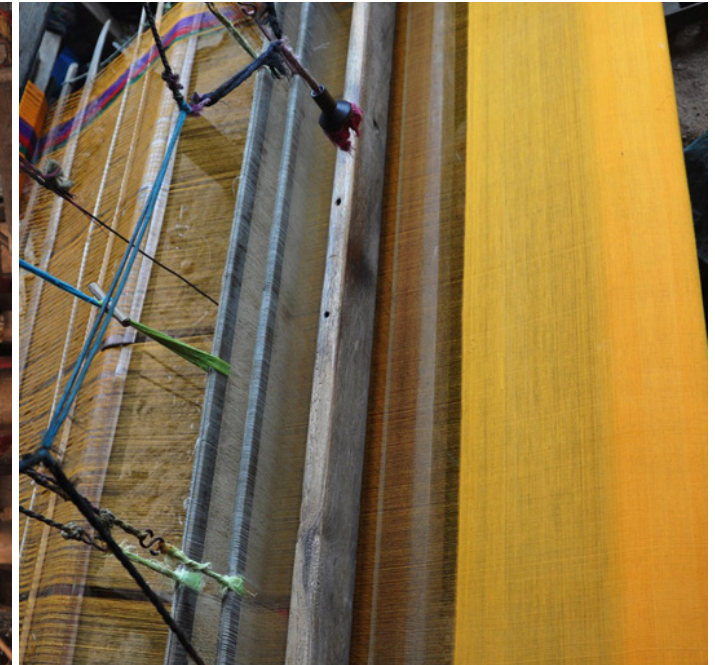
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Environment where the number of looms are accommodated at small place.



Woven sari is rolled onto weavers beam.



Woven sari of six meters in length is cut and folded for marketing.

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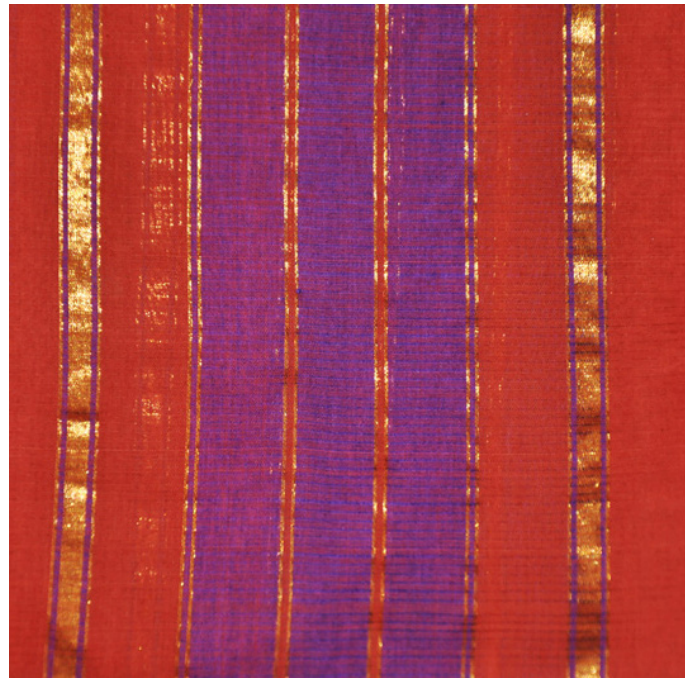
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Products

Mangalagiri sarees are famous for their unique borders and the elegance. They are mainly embellished with narrow golden stripes. It comes in plain colors, stripes, and checks with zari and thread borders. The zari border is usually referred to as the “Nizam Zari Border”. In recent times the concept of “missing checks” has been introduced in the Mangalagiri weave. It is similar to the Kota saree, which has an airy and fluffy feel to it and makes the saree very light to wear. Mangalagiri sarees are famous for their guaranteed color, which stays strong for long time. Currently Mangalagiri weavers have started weaving sarees in pure silk as well as in silk cotton.



Traditional Mangalagiri sari has line patterns in pallu.



Collection of plain saris ideal for daily wear.

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Saris with zari-golden thread borders in different hues.



Lighter colors are introduced in recent years.



Stripes and checks with zari borders are very attracting.



These saris are suitable wear for hot weather.

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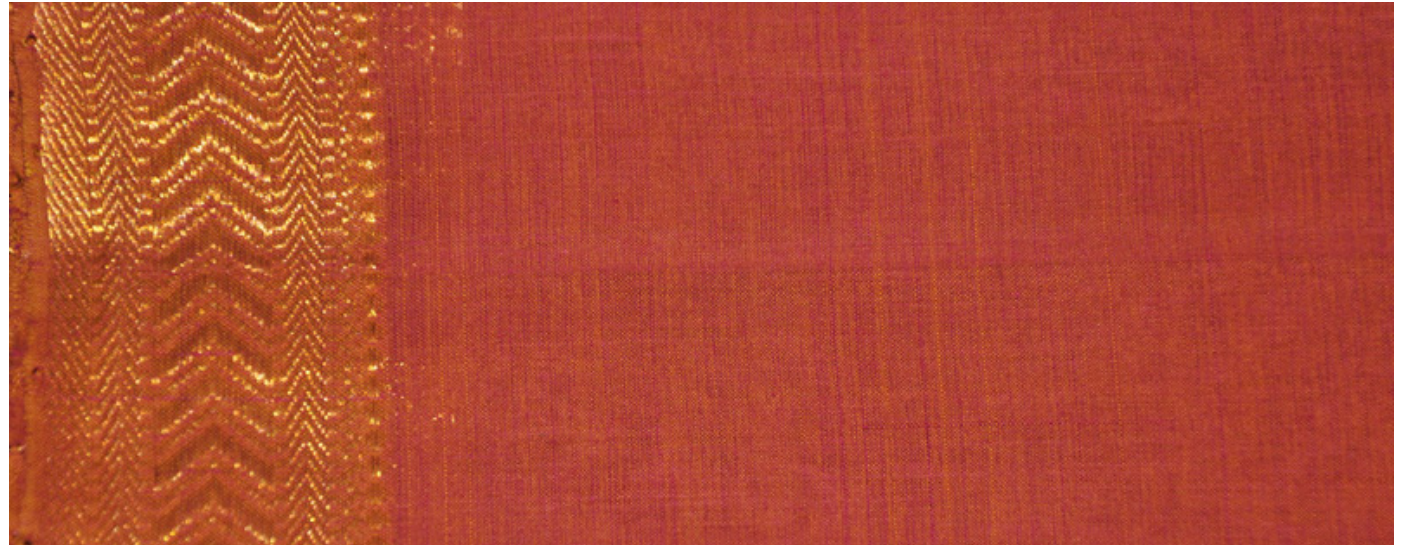
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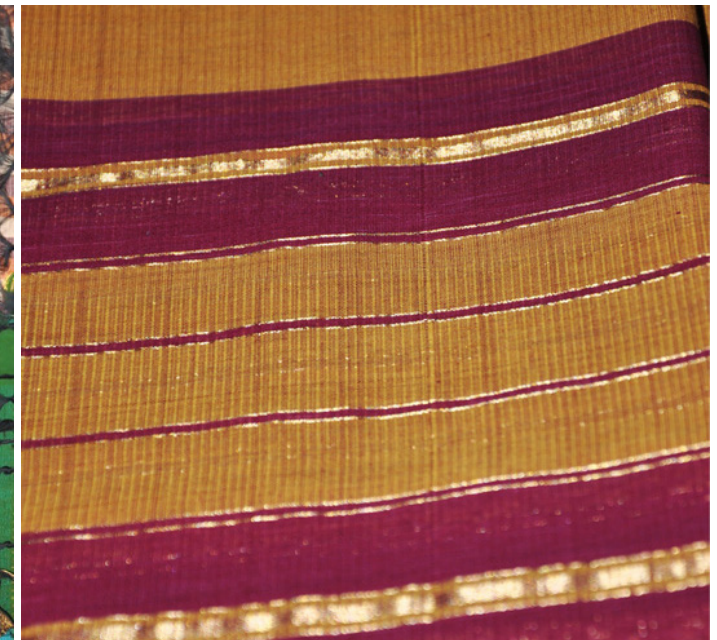


Geometric motifs included in sari borders.

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Length of the border is minimized as per design and demand.



Beautiful cotton sari in bright contrast colors.

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This documentation was done by **Professor Bibhudutta Baral**, Mr. Antony William and Ms. Shruti K. at **NID, Bengaluru**.

You can get in touch with Professor Bibhudutta Baral at **[bibhudutta\[at\]nid.edu](mailto:bibhudutta[at]nid.edu)**.

You could write to the following address regarding suggestions and clarifications:

Helpdesk Details:

Co-ordinator

Project e-kalpa

R & D Campus

National Institute of Design

#12 HMT Link Road, Off Tumkur Road

Bengaluru 560 022

India.

Phone: +91 80 2357 9054

Fax: +91 80 23373086

Email: **[dsource.in\[at\]gmail.com](mailto:dsource.in[at]gmail.com)**

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