

Design Resource

## Silk Weaving - Thirubuvan- am

The Art of Weaving

by

Ms. Amruthalakshmi Rajagopalan, Ms. Anisha

Crasto and Prof. Bibhudutta Baral

NID, Bengaluru

Source:

[http://www.dsource.in/resource/silk-weaving-thirubuvan-  
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## Introduction

Thirubuvanam is a small weaving cluster located 48 km away from Thanjavur district in Tamilnadu state. The place Thirubuvanam is very well known for its famous silk weaving. The traditional silk saris of Thirubuvanam are well noted for their single (one side) borders in striking colors. The weavers of Thirubuvanam still maintain the traditional motifs influenced by temples, flowers, birds and Rudraksham-seed motif. Pure raw silk is processed, dyed and weaved in the raised looms. The motifs are created with jacquard technique. Now-a-days there is a great demand for latest and contemporary designer silk saris in the market but still the production of old typical big/large border saris with heavy zari-golden thread work is still in demand Thirubuvanam. Rasipuram, Mannarkudi, Kumbakonam, Kanchipuram and Arni are the other major centers in Tamilnadu well known for silk weaving.



Captivating saris in striking colors.

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Weavers involved in sari folding.



Weaver at his work station.

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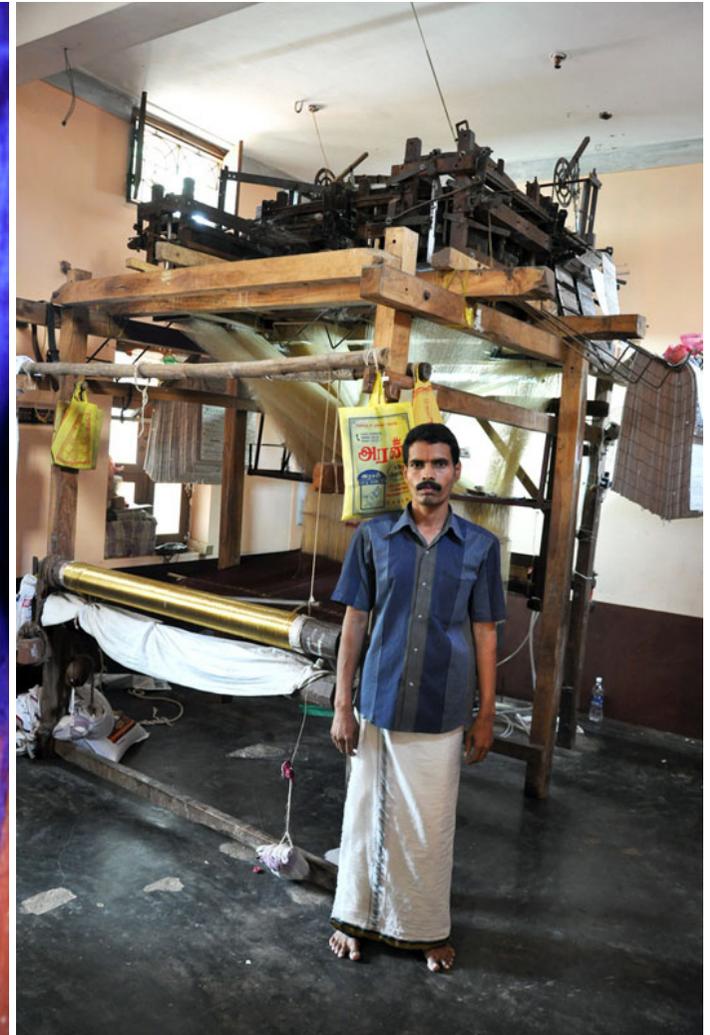
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Temple at Thirubuvanam.



Silk saris with heavy Zari work.

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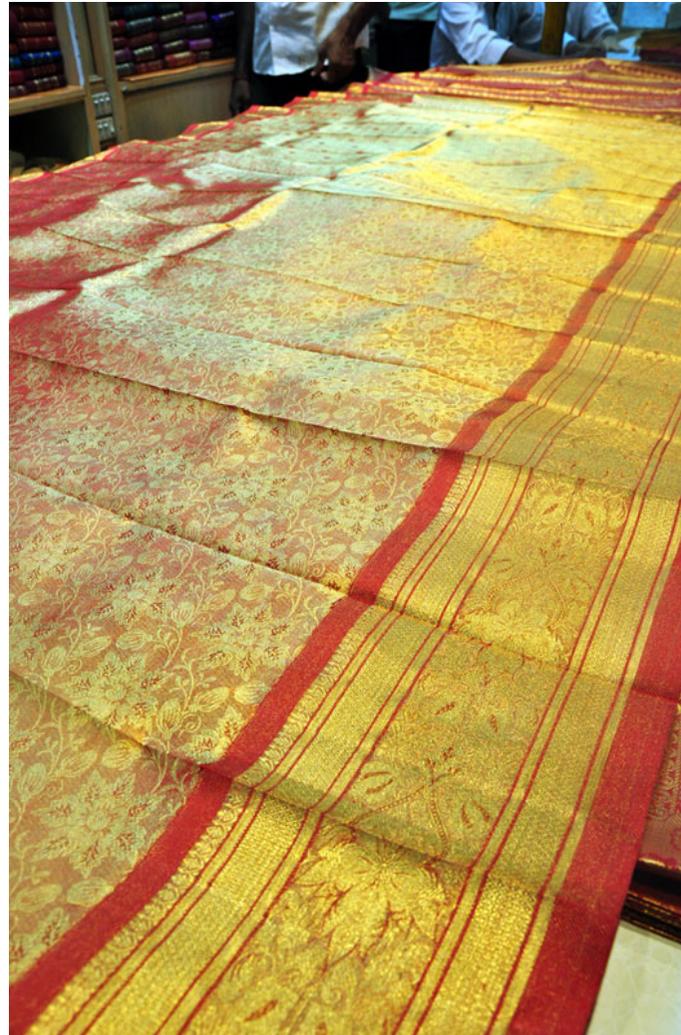
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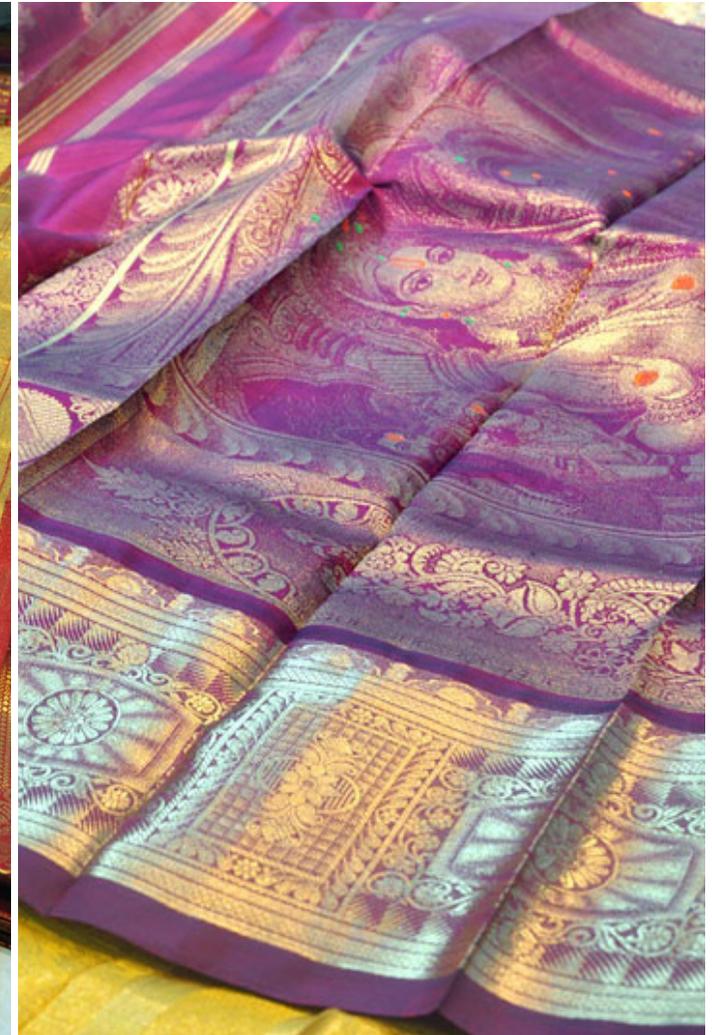
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Stunning red colored sari is ideal for wedding occasions.



Big-border sari with elaborate motifs.

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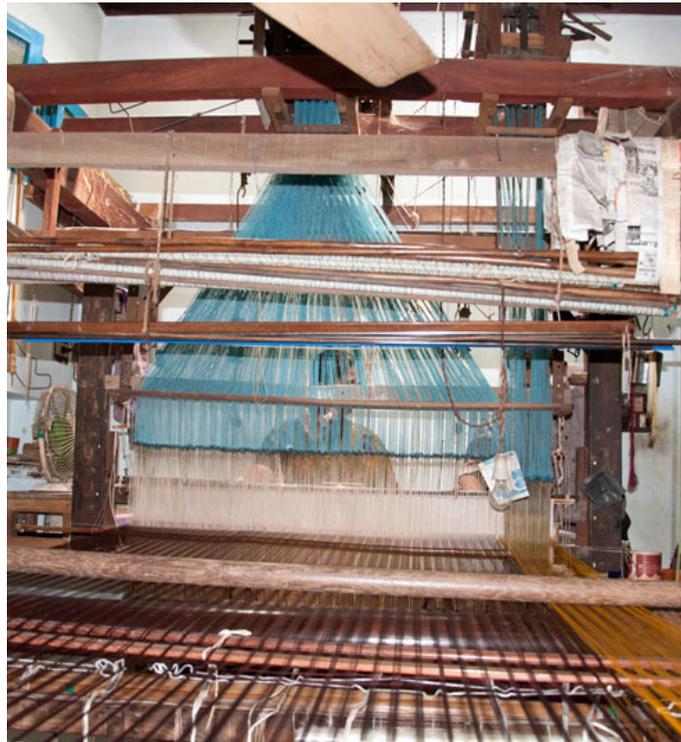
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## Tools and Raw Materials

The rich Thirubhuvanam silk saris are weaved with pure high quality silk and pure Zari-golden thread. Silk production is mainly done in raised loom and power looms. The raised looms stand above the ground level and are operated by motor pedals. The weaver stands in front of the weavers beam and operates the loom by pedaling the motor pedals which works with the help of electricity. Spinning of silk is done by spinning wheel. The silk yarn from spinning wheel is reeled to spindles. The silk loaded spindles are inserted into fly shuttles used during weaving process. The fly shuttle that processes the weft is made of bamboo. Dyeing process is done in huge dye containers. The solution for dyeing is prepared with chemical dye colors. A small brass metal piece is used to smooth the surface of sari. Natural glue solution is used to apply on the weaved sari to obtain stiffness. The computer generated punch cards are loaded in the jacquard machines to create the motif patterns in the sari, border and Pallu. Huge warping machines are used while preparing the warp. The prepared warp is loaded into the warpers beam before weaving process.



Raised loom.



Natural substances used to prepare glue which is applied on sari.

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The colored silk is spinned into reels made of bamboo sticks.



Punch cards to create motifs.

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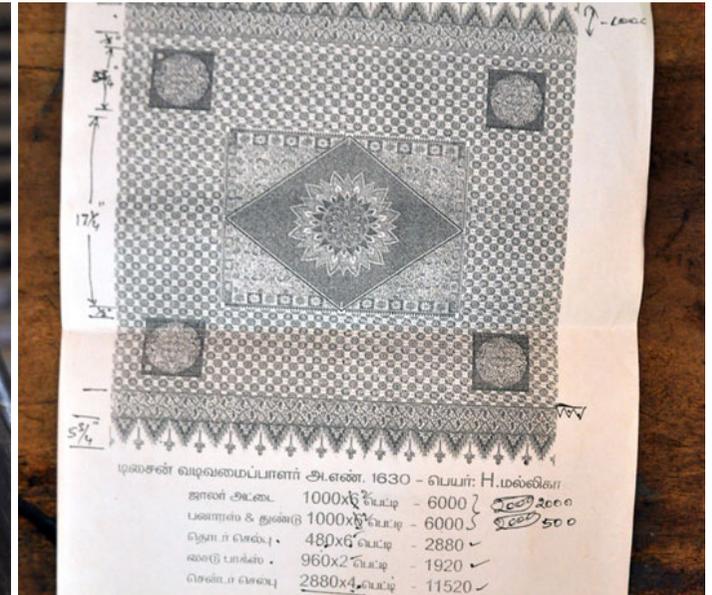
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Zari-golden thread.



Reference of motif design and its measurements.

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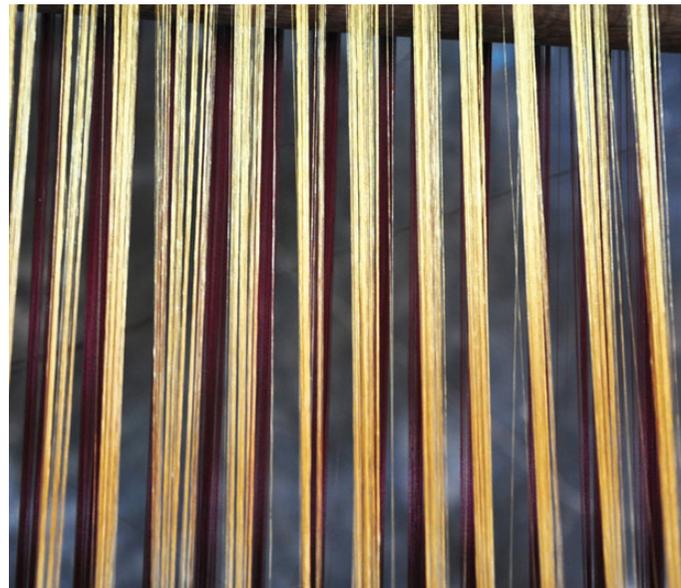
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Fly shuttle made of bamboo.



Zari and silk are the main raw materials.



Boiler arrangement for Dyeing process.

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Wooden rods used in dyeing process.

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Huge dye container.



Arrangement of loom with jacquard machines at the top.

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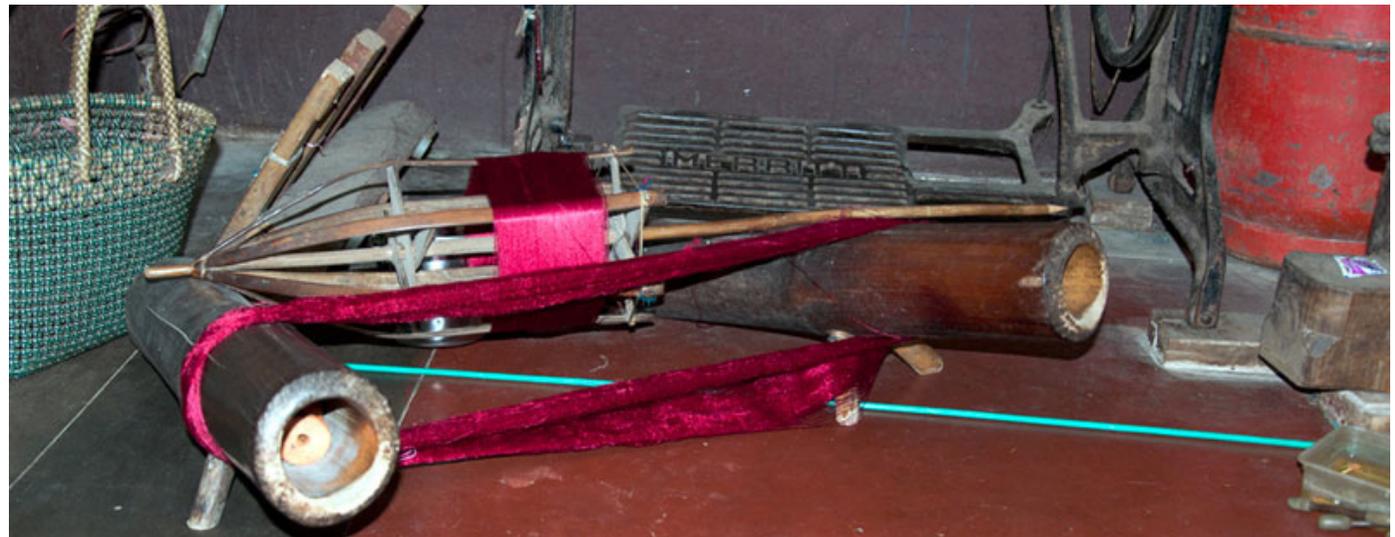
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Mechanized pedals.



Spinning wheel.



Small bamboo poles used in spinning process.

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Spindles.



Brass metal piece.



Brush used to apply gum.

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## Dyeing

The off-white silk yarn is bought from market and then taken to the dyeing process. The dye color is added to the huge container with boiling water. In Thirubuvanam, the boiling process is done using automated boilers. During the dyeing process the silk yarn is immersed in the colored solution. The yarn after dyeing is taken out from the container and it is allowed to dry for 2 to 3 days. The dried silk yarn is further sent to spinning process and warping process.



Silk yarn is ready for dye bath.



The yarn is immersed in dye solution.

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Automated boilers help in saving Dyeing time.



Checking for the proper color quality.

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The silk yarn kept for boiling continuously for 30 min.

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The colored yarn ready to be removed from the container.

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The yarn is hung on a bamboo stick and allowed to dry under shade.



Dyeing area/environment.

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## Making Process

Silk production process is very complex and starts after dyeing the silk and involves various stages such as spinning, warping, loading warp and weaving.

### Spinning Process:

The silk after dyeing is brought for spinning process. Bundle of yarn is placed on the spinning wheel. The silk strand is reeled to spindle and the wheel is operated. The yarn from big hank or Charka-spinning wheel is transferred into spindles. These spindles are later used to insert into fly-shuttle which is used in the weaving process.

### Warping Process:

The warping is carried out in streets preferably in the early morning, so that the color of the silk yarn does not fade. The length of the yarn is tied between the two poles and it is stretched. Entangles in the yarn are checked and the breaks are knotted. A cotton thread is laced into the warp as it is easy to trace the entangled silk threads.

### Setting the Loom:

The loom setting activity is done before weaving process. The yarn after warping is prepared into warp sheets by rolling the length of yarn to an iron rod. The process of transferring the warp sheet into weavers beam is called beaming. In this process the strands of yarn passes through the reeds and healds. This is done by joining each silk strand to the old warp threads manually. It takes nearly 2-3 days to complete the joining process. Generally women in the family perform the joining process.

### Computerized Design Process:

Technology is also a part in the production of silk saris. The automated design process has replaced the traditional design process. The image of the motif is first scanned and then it is traced and filled with bitmaps. Finally the image is transferred to the punch cards. Now the punch cards are attached in the form of a chain and loaded into the jacquard machine to start weaving. This automated process is simple and time saving.

### Weaving Process:

Weaving is done on the fly shuttle pit looms. The weaver interlaces the silk threads of weft and warp. The shuttle passes through the opens formed when the pedal is operated to interlock the threads of warp and the weft. Once the shuttle is passed, the suspended sley is pulled to form the weave. The proton of woven cloth is wound to the wooden beam which is located in front of the weaver. After weaving of 6 yards of weft, the portion of unwoven warp is intentionally left before and after the sari weaving which is later knotted for fringe. Thus the weaving is completed- the sari is smoothened using brass metal blade and sari is folded in traditional manner for the market. It takes nearly 4 to 5 days to complete one sari. The length of 10 saris warp is loaded into the loom at a time. The weaver may need 1 or 2 persons to help him while working.

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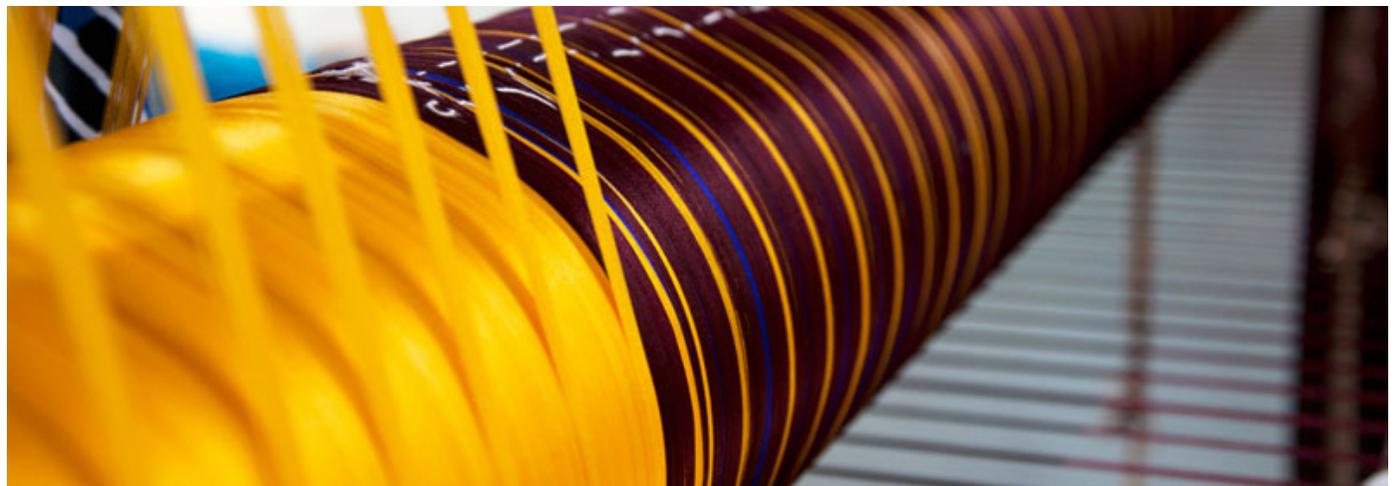
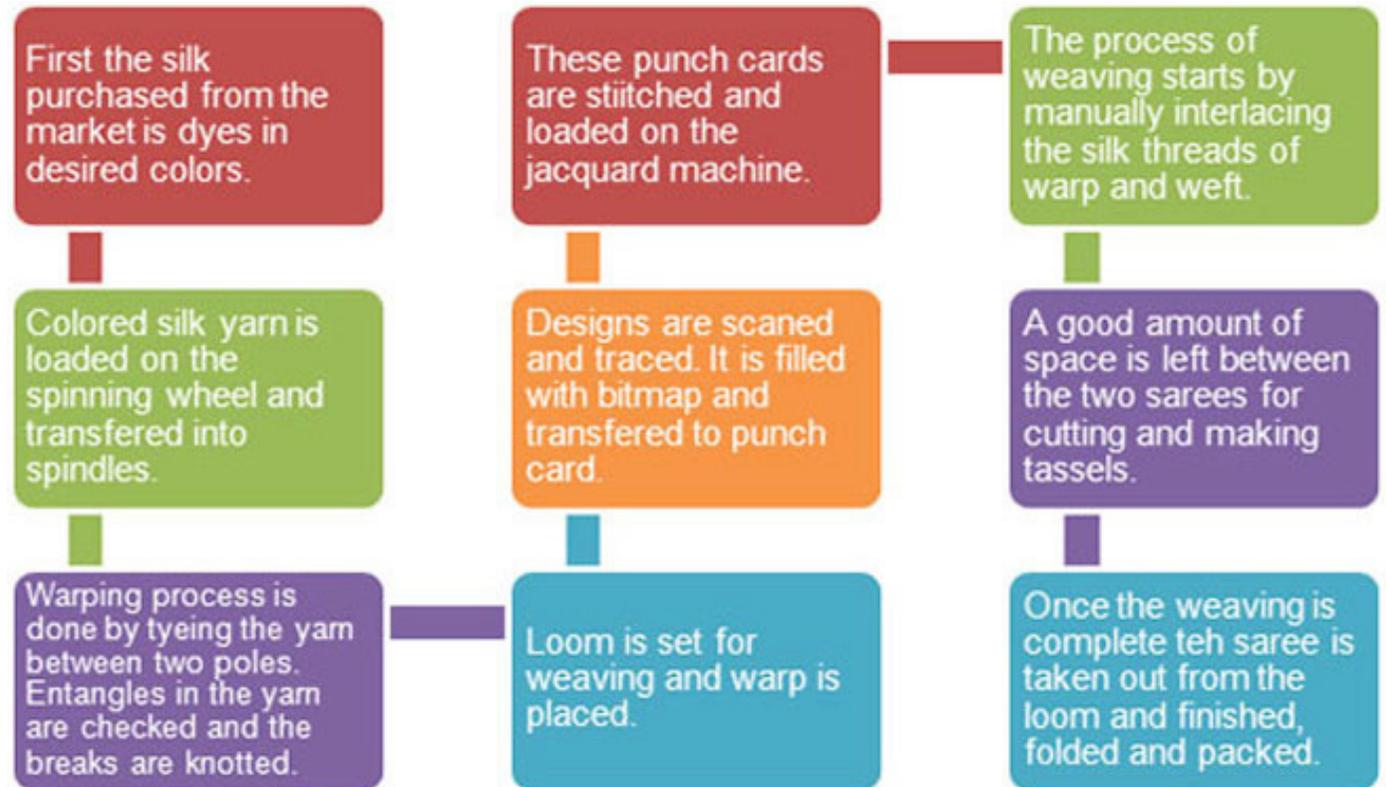
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Warp beam is stretched tightly and loaded into loom.

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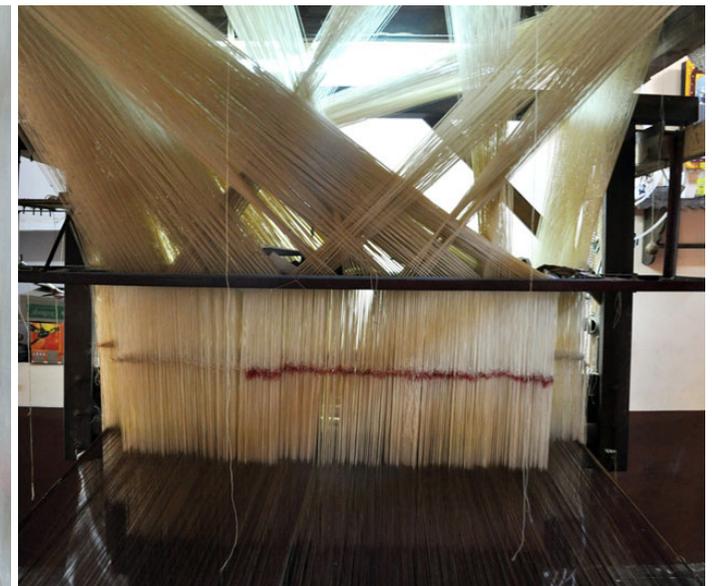


The weaver initiating the process of weaving.

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Joining the silk thread from fly shuttle to the loom thread.



The suspended threads from Jacquard machine passes through warp.

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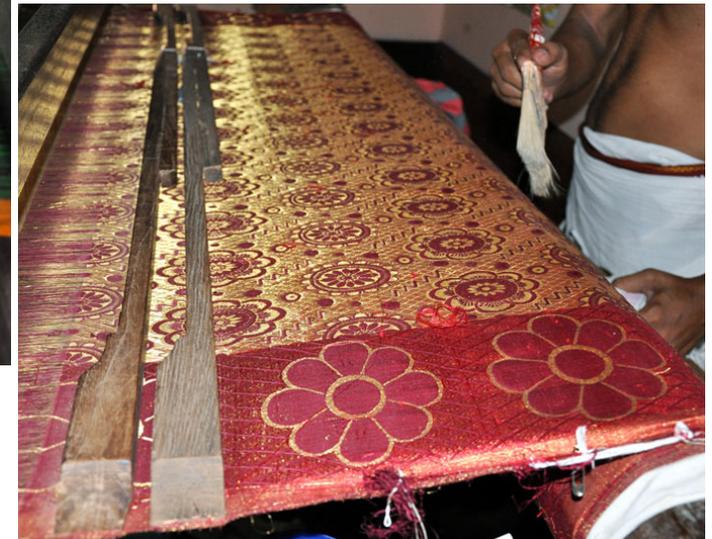
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The woven part of the saree is gradually rolled to the weavers beam.



Artisan operating pedals while weaving.



The count of jacquard machines will be increased based on motif pattern.

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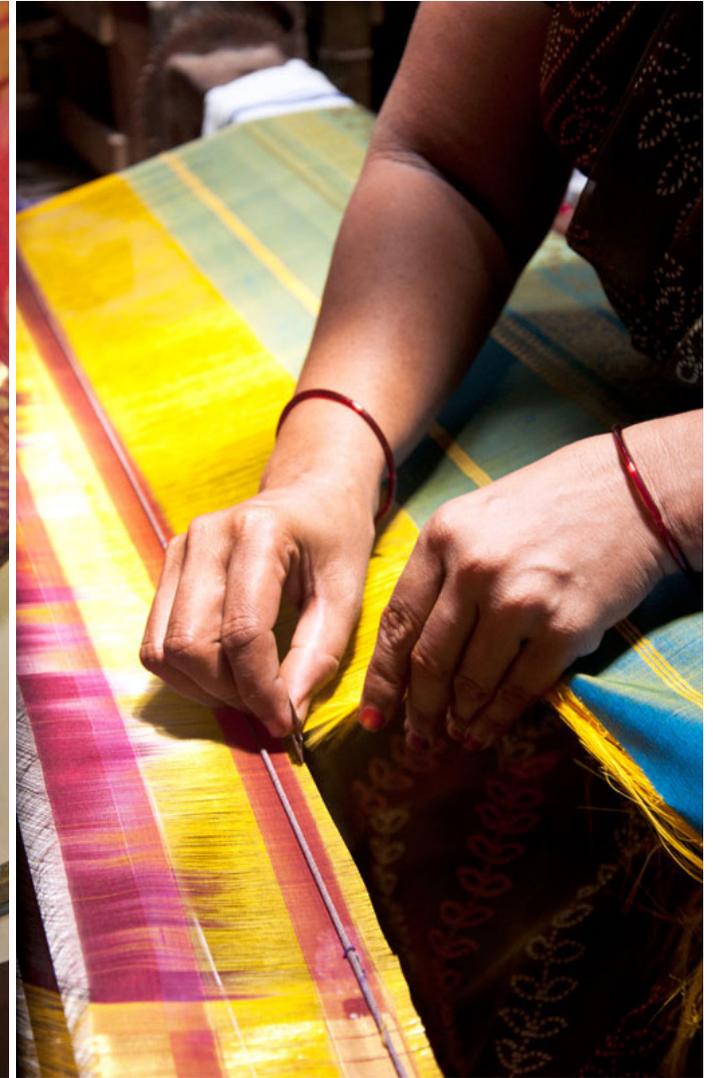
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Actual appearance of sari can be seen from the other side.



Cutting the sari after weaving.

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Sari is being removed from the weavers beam.



Quality is checked before sending the saree to the market.

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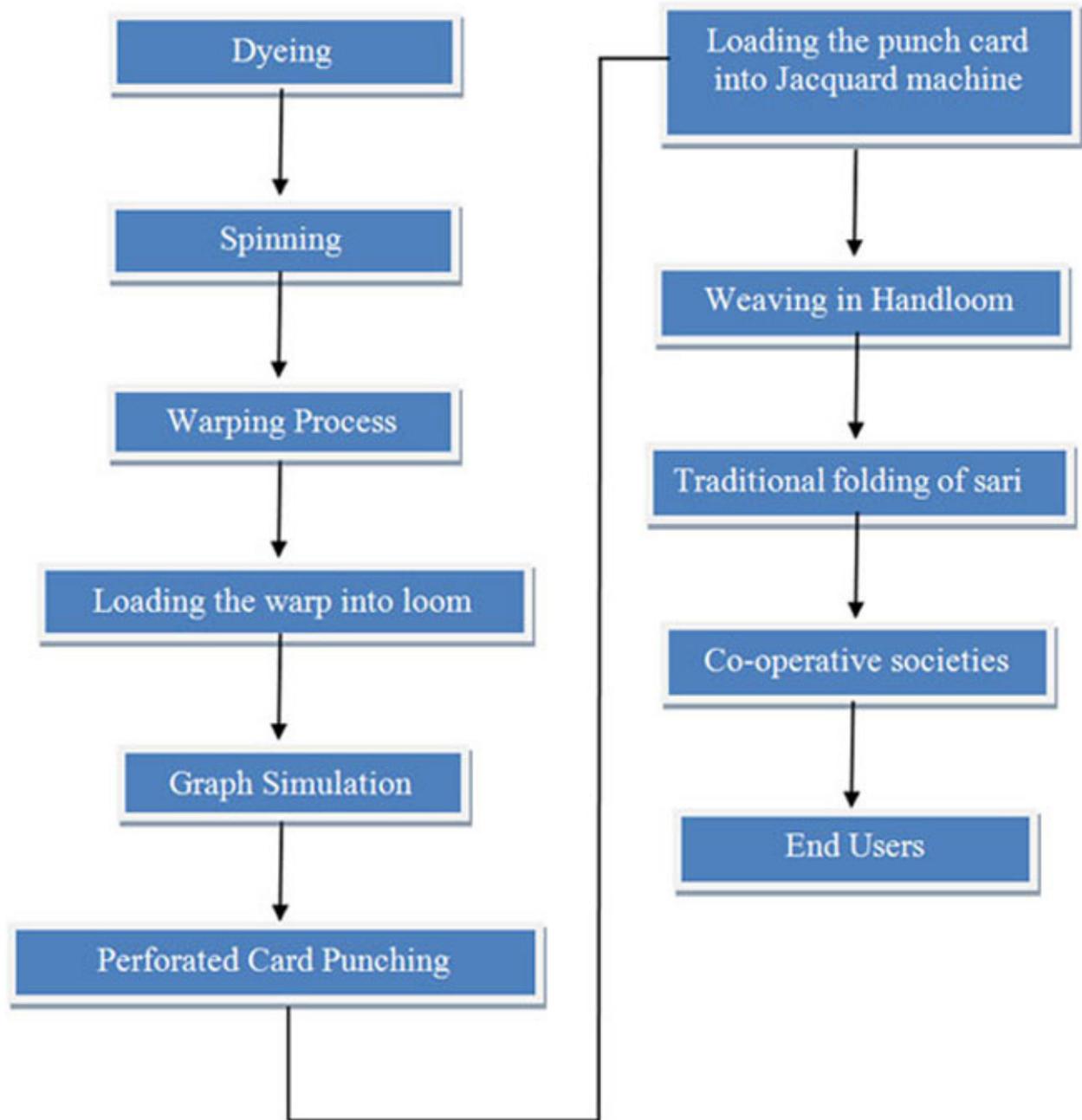
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## Products

Thirubuvanam saris are very rich in quality with fine counts of silk. The wide borders in contrast colors with intricate motif patterns are very fascinating. The intricate border and pallu designs are aesthetically embellished with fine Zari. The most popular motifs are influenced by temples, flowers, natural leaves, fruits, Mayilkan- the peacock's eye, Rudraksham- Rudraksha beads and birds like peacock and parrot. Checks, stripes and geometrical patterns are also included in the motifs. Traditional products include saris and Pattu langas- skirts.



Wide bordered blue color silk sari.



A scene from Ramayana is created skillfully.

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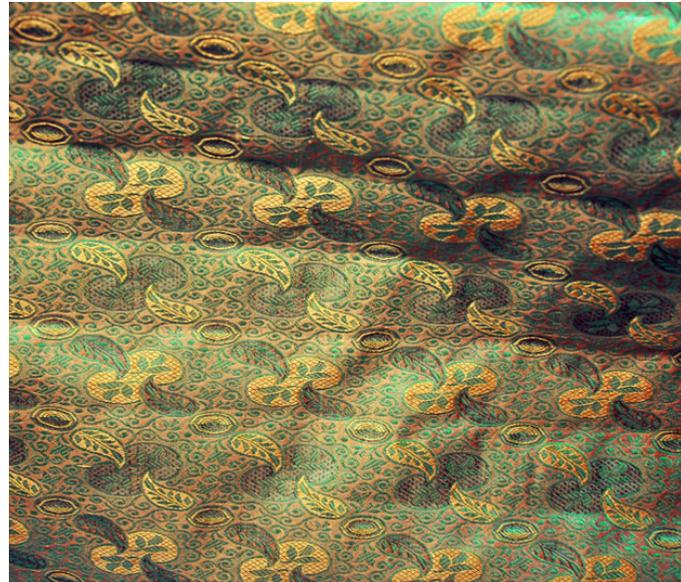
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Silk sari with intricate works/motifs/designs all over its body.



Dense geometrical diamond motifs are rich and attractive.



Both floral and geometrical patterns included in the wide border.



The cost of sari increases due to heavy zari work.

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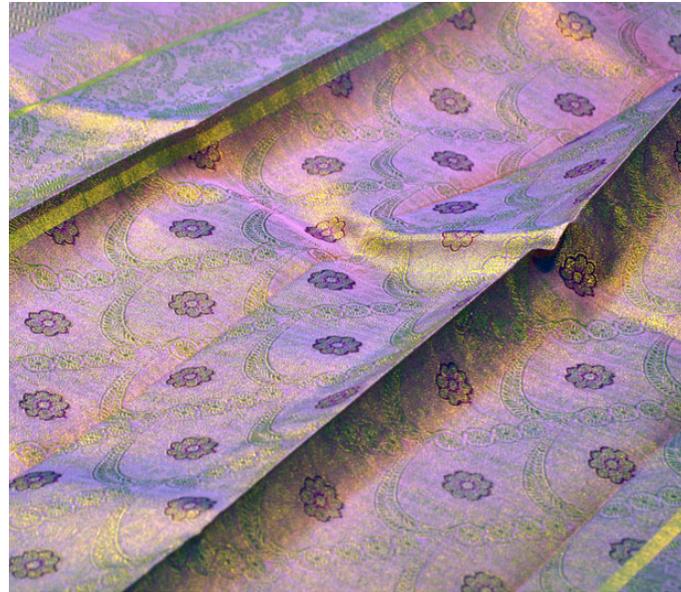
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Scattered flower pattern in golden sheen.



A scene from Ramayana is created in the Pallu of the sari.

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Pallu motif inspired by temple.



Silk saris are displayed at the show room.

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## Contact Details

This documentation was done by **Professor Bibhudutta Baral**, Ms. Amruthalakshmi Rajagopalan and Ms. Anisha Crasto at **NID, Bengaluru**.

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