a journey into Handloom weaving
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About the booklet

This book is for handloom users keen to understand more about the process and those interested in exploring handlooms for the first time. We would like to acquaint you with the different stages in the process, where individual fibres come together to become beautiful fabrics and how you can distinguish pure handloom from imitations. Knowing handlooms also allows you to understand the challenges industry is facing in current times.

This journey into the handloom world, we hope will enable you to better enjoy and appreciate these fabrics.
Over 500 indigenous varieties of cotton were grown in India in the past. Today, we grow less than 20 varieties.

Cotton

Cotton was traditionally the single largest natural fibre used in clothing. Today India occupies the second position in cotton production in the world. Many varieties of cotton were produced in our country, the majority being the short staple variety which is ideal for hand spinning. We have moved away from growing short staple varieties but still produce good amounts of cotton both for domestic use and for export. Heavy use of pesticide has led to many problems and now there is a shift to organic farming.
Yarn is a long continuous length of interlocked fibers. Staple length of cotton determines the thickness of yarn spun and this is referred to as “yarn count”. Standard measure for a length of cotton yarn is termed “hank”. A hank measures 840 yards. Hank yarn is used typically in handloom production as opposed to cone yarn which is used in mill production.

Yarn is available from a coarse 2’s count to a fine 120’s count based on the fiber length of cotton.
3. Hand Spinning

The process of converting cotton fibre to yarn is complex and the strength and fineness of yarn is dependent on the staple length of the fibre and the skill of the spinner. Yarn can be hand spun in two ways – cotton fibre to yarn by hand, cotton to sliver by mechanical process which is then spun by hand in various thicknesses. Srikakulam in north coastal Andhra remains the only hand spinning belt in the country, where fine yarn up to 100s counts is spun.

Yarn is less stressed in hand spinning process. Hand spinning wages increases the cost of Khadi
Mill Spinning

Mechanical spinning of yarn in the West began with the Industrial revolution in the 17th century. During colonial rule, the British introduced mill spinning in our country. Large spinning mills were initially located in Mumbai and later most of the activity shifted to Tamilnadu and a few pockets in Andhra Pradesh. Today mill spun yarn is used extensively by handloom weavers across the country.

The Bombay Spinning & Weaving Mill at Tardeo, Mumbai, was one of the first mills set up in India in 1854 to supply yarn to local handloom weavers.
4. Dyeing

Textiles can be dyed in the yarn form or at the fabric and garment stages. Hank yarn dyeing is a predominant practice in South India unlike in the North where fabric is dyed for developing prints in the craft sector. The dyeing process involves “scouring” to remove natural oils and dirt present in cotton after which natural or chemical dyes are used for colouring. Dyeing for handloom is done in and around weaving villages by local experts.

In the past, sarees had very little colour in them. Colour was used mainly in the borders and pallu.
Natural Dyeing

Dyes extracted from natural materials such as the bark of trees, flowers, leaves and minerals are known as natural dyes. Vegetable dyes are a sub-category of natural dyes, referring to colours that come from plant matter only. Mordants, which are usually minerals, are used to fix dyes on cotton. All natural dyes generally yield lasting colour though some colors are sensitive to sunlight.

Chemical Dyeing

The discovery of the structure of benzene in 1865 in Europe heralded the shift from natural dyes to chemical dyes. Chemical dyes - direct dyes, sulphur dyes, naphthol dyes, vat dyes and reactive dyes - that are used today were developed during the period 1878 - 1956. They offered a wide range of colors with an ease of application along with the properties of fastness that suited modern-day usage.
5. Bobbin Winding

Yarn in the hank form is wound on to bobbins in this process. This is the first step in transforming the yarn from the hank form to a linear form. Dyed hank yarn is wound on to bobbins with the help of charkhas. This process enables the laying out of yarn lengths for weaving. Bobbin winding is done by women in the weaver households.

Typically 19 to 20 bobbins are required for a five saree “warp” length of 34 meters.
Warping

The warp is a set of threads attached to the loom lengthwise before weaving begins. Warping is the process of creating the base yarn that runs along the length of fabric through which the “weft” yarns are filled in to make the fabric. For a 46-inch wide fabric, over 3,200 individual yarns run along the warp of the fabric. Typically, 1,96,550 yards of yarn are aligned by wrapping them around the circular warping drum.

Traditionally warp lengths and widths varied according to the draping styles of the sarees of a particular region.
7. Street Sizing

The warps are stretched out onto two beams and natural adhesives are applied to add strength to the yarn and lubricate it to withstand the rigors of weaving. In most handloom centers, rice starch / gruel is mixed with coconut / groundnut oil and applied as “size” material. Sizing is carried out by weavers or specialists in the village. Since this activity is done on the street, it is called “street sizing”.

The brush that is used in the sizing process is made locally using available natural material like palmyra fibre.
Individual warp threads are drawn through **heddles** taken through a set of **reeds** and tied onto beams located on both ends of the loom. The heddles separate the warp into two sections which allows the weft threads to pass between them easily. Checks and stripes are created by segmenting the warp and weft yarn. For motifs, looms are equipped with “dobbies” or “jacquard” cards which help in lifting segments of warp yarn into the weft.

**Heddles** are made out of rods or cords, each with an eye through which the warp thread is drawn. **Reed** is a comb like frame that pushes the weft yarn firmly against the finished cloth after each insertion.
9. Weft Winding

Hank yarn for weft is wound onto a **pirn**. The weft yarn is then inserted into a **shuttle**. Weft preparation is done on the charka, using the finger tips to give the correct tension to the yarn. This operation is normally done by women.

**Pirn** is a small bobbin. **Shuttle** is a device used in weaving to carry the weft thread back and forth between the warp threads.

Changing colors in the weft allows for the creation of “shot” colors which make the fabric lustrous and vibrant.
The process of weaving is the interlacing of two sets of yarn – the warp and the weft. The equipment that facilitates this interlacement is the loom. A “handloom” is a loom that is used to weave fabrics without the use of electricity. The manipulation of the foot pedals to lift the warp has to be in sync with the throwing of the shuttle which carries the weft yarn. A perfect weave demands coordination between mind and body. The weaver achieves a harmony of motion and rhythm to create a unique product.

Depending on the complexity of design, a weaver weaves between half a meter and five meters of fabric a day.
The handloom sector in Andhra Pradesh employs more than 2,00,000 weavers. More than half of the weavers work under master weavers (traders) and the rest are organized through the primary weaving co-operatives. There is also a small percentage of independent weavers. There are 1066 registered handloom weaving co-operatives in Andhra Pradesh. Co-operatives are quasi-government bodies registered under the 1964 Co-operative Act. The oldest co-operatives in the State can be dated back to the pre-independence period. Co-operatives carry out the twin agendas of welfare and business in order to create stable livelihoods for the weavers.

Andhra Handlooms & Weaver co-operatives

The handloom sector is known for its tradition of excellent craftsmanship. It is the second largest employer in the country after agriculture and is estimated to employ 43.31 lakh people mainly based in rural areas. Today more than half of the total handloom production comes from the southern part of India. De-centralised production organised from the homes of individual weavers is characteristic of this sector. Co-operatives and master weavers constitute the dominant forms of organization in this sector. Handloom weaving adopts environment friendly processes where energy consumption, capital investment and infrastructure requirements are minimal.

The Handloom Industry
In 2001 DAMA (Dastkar Andhra Marketing Association) was incorporated as a sister trust of Dastkar Andhra with the objective of providing marketing services to the weavers' groups. DAMA works with co-operatives based in 30 villages across different districts of Andhra Pradesh. DAMA markets product off the loom - yardage, dupatta and saree. It reaches customers through retailers, exhibitions organized across the country and direct sales. DAMA has sought to create a business revenue model that attempts to break the different negative perceptions of the handloom industry.

Dastkar Andhra initiated its activities in 1989, as an off shoot of Dastkar, Delhi. In December 1995 Dastkar Andhra was incorporated as a public charitable trust, with the objectives of promoting the handloom industry in Andhra Pradesh suited to ownership by the primary producers. Dastkar Andhra plays a supportive role, investing in research and development for the handloom industry and imparting technical inputs and design expertise to the weavers and handloom co-operatives. It provides policy and advocacy support to the handloom industry to promote it as a viable rural livelihood.
Why do we need to distinguish handloom from imitations?

Craft organizations and State bodies are issuing certifications to identify pure hand processes. Today Handloom mark and Craft mark represent two such labels for guaranteeing pure processes and product in the domestic market. However, trust in the organizations and institutions that carry out hand processes plays an important part in issuing the certification. The reason for this is the absence of fool proof scientific methods to distinguish handlooms from powerloom / mill imitations. We need certification as the imitation of the handloom aesthetic and form is the biggest challenge for handloom markets today. In the absence of scientific testing, ironically variations and imperfections in the fabric and high price become the indicators to identify pure handlooms.

The cost in making a metre of handloom fabric is divided across yarn 31%, pre loom wages 19%, weaving wages 27% and aggregation and distribution costs 23%. Since pre loom and weaving activities are carried out in the village, 55% of the cost paid for the fabric contributes to the village economy. One loom provides employment for three more people in addition to the weaver, through pre loom activity.
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