PROJECT REPORTS

Indigenous Techniques of Weaving in Silk Industries: A Study in the context of Eastern Uttar Pradesh*

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The project on indigenous technique of weaving in silk industries was conceived to trace out the history of origin and evolution of weaving technology in Eastern Uttar Pradesh including Varanasi. An attempt was also made to study the changes that occurred in different period in weaving and dyeing technology and processing of silk materials. In the process an effort was made to systematic documentation of various weaving and dyeing techniques of silk in Eastern Uttar Pradesh including Varanasi in different periods including other historical dimensions of silk industry.

The study was carried out under the following chapters:

- I. Introduction
- II. Review of previous work and literature
- III. Weaving technology of silk in different periods
- IV. Dyeing technology of silk in different periods
- V. Traditional weaving areas and technologies adopted in different areas
- VI. Conclusion and suggestion

Varanasi, one of the oldest living cities in the world and sacred place in northern India, this city has been home to the largest number of handlooms and handloom weavers for more than 1,000 years in India. India used to export fabrics back to China as early as 4th century BC. The silk industry in

^{*} Accomplished under the sponsorship of Indian National Commission for history of science between 1st October 2008 and 30th September 2011

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India is traditionally linked to the Muslim community, which for almost 800 years was in charge of production.

The Manufacture trade of silk fabrics has constituted a significant part of the economy of Banaras since pre-Mughal times. The muslims who installed their own looms and learnt weaving were known as "Chira-i-Baaf' meaning 'Fine cloth weavers'. During the reign of Akbar (1156 to 1605 AD) the industry took a new turn with the state's patronage the industry was stimulated. During this period a man named Khwaja Abdul Samed Kashmiri was sent to Varanasi by the state and he designed various types of 'Gathwa' (Heddle or a thread frame)to be operated on looms in order to create design in weaving.

During the Muslim period and onwards many technological developments took place in the industry. The same old tradition 'pit-throw shuttle looms' are still in operation in a majority of cases. (Most of these looms have been inherited by the present owners from their fore –fathers). Even the constant repairs and renewals have not materially changed these looms.

The system of heddle, however, required the employment of three persons on a single loom and was time consuming when weaving fabrics with borders and designs. These defects later on were removed with the introduction of 'dobbies' and 'jacquards' in the 30's of the last century.

The introduction of 'jacquards' increased the productivity of per worker per loom. The industry experienced greatest boom just after the beginning of 2^{nd} World War.

The various types of handlooms used by the weavers in different periods in India can be classified and studied as follows:

Handlooms can be classified between the ordinary Manipur's type to Switzerland's advanced power loom, which are highly sophisticated and technical. We can divide these handlooms under two parts .One that are run by hand and leg; and the other run by power.

Classification on the on the basis of raw-materials

- a. Handlooms for threading through cotton threads.
- b. Handlooms for weaving of resam silk and art silk.

- c. Handlooms for weaving of wool.
- d. Handlooms for weaving of other silk.

Classification on the basis of its structure and methods of operation

Classical	Pit-Looms Nachin	Framed-Looms Darkee	Powered-Loom
Pit-loom	Ghadwal loom	Malabar Loom	Jacquard Power-Loom
Ādivāsi loom	Jāmdani loom	Terry Motion's	
		Malabar loom	
Coarse-wool loom	Balrampuram loom	Madurai loom	
Wool- blanket loom	Benaras loom	Rajasthani loom	
Gāliche loom	Cānderi loom	Shantipuri loom	
Niwar loom	Aurangabad	Solapuri loom	
	Himroo loom	•	
Patti loom			

Apart from these there are self-operating and semi self-operating looms in use. The examples of self-operating looms are—Upada, Selam Madras Roomaal, Mau, Sandilaand Nagpur. The semi-self-operating looms include—Chittaranjan, Banaras Semi Self Operating, Madanpura and Haiterslay Foot Loom.

The Census of Handlooms in India is the only comprehensive database on this subsector. The lastest in the series, Handloom census of India (2009-10), has brought out some important results relating to production and employment conditions in the subsector. Despite its wide spread across the country, there is significant under- utilization of capacity in the sub–sector. The total number of idle looms (house hold and non-household) is 2.31 lakh, i.e. one out of every ten looms. The census has also noted that the share of annual income to household income is only 30.2% across all handloom households in this subsector. As a natural consequences of all these, only 25.3% of the households were positive about their children continuing in this trade.

Handloom has been facing threat from the power looms and the mill sector. Production of handlooms has registered a decline from 6677 m.sq.mts to 3956 m.sq.mts in 2009-10. The provisional results for 2010-11 also indicate

decline (3770 m.sq.mts) where there is a general trend of power looms displacing handlooms, the trend in production of this sub sector also a mixed picture. Production by power looms has increased marginally from 21,699 M. sq.mts in the previous year to 22,677 m.sq.mts in the current year 2010-11.

Only India views its 10 million plus craftspeople as a liability rather than an asset with enormous potential! It was scarily referred to a "sunset industry" and instead of investing in it; the general wisdom is to prop it up with subsidies until it disappears all together.

More than 5, 00,000 weavers live in and around Varanasi, weaving silk saris and carpets for the domestic as well as international market. But since 1990s, these silk handloom weavers have seen their market vanish. There are many reasons for this decline: increasing competition from power loom weaving, changes in government. protection policies, rising prices in raw silk and shifts in market demand. In the past five years, as import tariffs have come down and restrictions have been lifted, imports of silk fabrics from China into India have more than doubled, exacerbating the poverty of Banarasi silk weavers. The impact of increasing competition in recent years on sari weavers has been dramatic. Workers' wages have halved since 1990s and local traders estimate that half the weavers have shifted to other jobs such as rickshaw pulling or as labour in construction work.

Since 1995 demand for silk has been shrinking and 60% of handlooms are idle. The traditional *Pit – throws shuttle looms*, mostly used by Varanasi weavers has been handed down from father to son for generations. Certain improvements have, however, been made in the technique of weaving and in the tools used.

The old pit loom used to weave cotton had different scales for the number of warp and weft used in the weaving. The wide spacing between the threads has to be changed for weaving silk.

Jacquard looms were introduced in Varanasi by the Alaipura weavers in the early 1930s and proved to be boon for the silk industry. Inspite of the troubled war years (1939-1945), the demand for Banaras goods was always in excess of the quantity produced. A variety of textures, designs and patterns were introduced, and a number of looms were installed, increasing production tremendously.

The revival of tradition patterns and techniques in 1982 was a turning point for the Banaras silk industry. The festivals of India organized in the U.K., USA, Russia, France and other European countries again made Indians aware of and made them cherish their rich heritage.

One of the measures taken up by the government to encourage the handloom industry is the 'Handloom Reservation Act, 1985'. Under this Act, 22 (later reduced to11) textile items have been reserved for the excusive production by handlooms. However, the act has never been implemented effectively. Its non-implementation has allowed power looms imitation to flourish in the market restricting growth of power looms in the country.

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