



MAKING OF COTTON CLOTH IN MUGHAL INDIA

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Abstract: The Mughal period has its own importance in Indian history. With the establishment of the Mughal Empire in India, a new socio-economic system was born. Establishment of the central government, improved their revenue system and developed agriculture and industries. The textile industry was the foremost among the industries and the cotton textile industry was the largest. If we believe the accounts of foreign travellers of that time, then at that time cloth was made in every house in India. Indian weavers were skilled in making every type of cloth. The production of cotton cloth was so high that at that time India was the largest exporter of it. From growing cotton to making cloth, the farmer was playing an important role. From Dhaka muslin to ordinary cloth, the best technology of the time was used in everything. Due to the advent of the spinning wheel, this industry started flourishing even more. The accurate use of colours in cloth was a special feature of this era.

Keywords: cotton, weaver, spinning, colouring, trade, textile centers.

After food, clothing constitutes the second basic need of mankind. The Spinning of thread and textile weaving marked its appearance very early in the history of craftsmanship. Cotton textile industry has been one of the biggest and the oldest industries in the country since ancient times. The textile tradition of India begins in the third millennium B.C. Archeologists have found cloth fragments in Indus Valley. It shows that Indus Valley people were prolific in the art of weaving. Excavations at Mohen- jo- Daro and Harappa have proved that textile was woven in India from the very beginning¹. The discovery of a madder dyed cloth fragment sticking to a silver jar at Mohen-jo-Daro is the earliest datable evidence of a true cotton fabric with ornamentation.² In 1500 BC, cotton was referred in several hymns of Rig-Veda. This Vedic text specifically mentions that the region through which river *Purusni* (Raavi) flowed produced dyed or bleached woolen stuffs.³ The technical terms related to weaving like otu, wool, Tantu, yarn, Tantra, wrap of loom, shuttle etc. are frequently used in Rigveda⁴ The contemporary Buddhist literature such as *Jatakas* mentioned a lot about different stuffs

¹ Irfan Habib, *A people's History of India; The Indus Civilization*, New Delhi, 2002, p. 26

² John Marshall, *Mohen-jo-daro and Indus Civilization*, London, 1931, pp.32-33

³ Ralph T.H. Griffith, *Hymns of the Rigveda* IV, 22.2, V, 52.9, Delhi, 1973. pp. 216-265

⁴ S. N. Sahai, 'Textile industry in Ancient India', *JBR*, vol-Lix, Patna, 1973, p.11



manufactured during those times.⁵ The excellence of Indian textile was glorified by even the Greeks in ancient times.⁶ In this context Megasthenese records India's love for fine ornamental and flowered garments.⁷ Kautilya in his creation *Arthashastra* mentions about different varieties of textile manufactured in Maurya period.⁸ He also mentions that standard of Indian textile got retained continuously. Banabhatta in the 7th century AD. recorded the ornamentation of fabrics through tie and die process.⁹ The Jain Canon and commentaries also give lot of information regarding the textile *Sutradhyaksh* (superintendent of yarns) who was responsible for the appointment of skilled artisans to make finest cloths.¹⁰ About the weaving in ancient and medieval India,¹¹ Ksemendra, an eleventh century writer from Kashmir also provides us some important information about textile patterns and dyes extracted from different articles.¹² This craft of cotton textile derived considerable impetus from the sultans of Delhi.

This craft got flourished throughout the Mughal Period. Chronologically, this industry was growing steadily during the reign of Emperor Akbar, but its real boom begins with the turn of the 17th century and four factors seem to have been the most determining factors in this direction; first, continual peace and stability stretching over a long period; secondly, extension of cultivation of cotton crops; thirdly, freedom of commercial intercourse; and finally, relative safety and convenience of the main commercial highways.¹³ The beginning of the seventeenth century in India opened a new chapter in the commercial history. There was an apparent growth of commercial interests and commercial mobility among the upper section of society including the Mughal emperors and members of the royal family during

⁵ Moti Chandra, *Costumes, Textiles, Cosmetic and Coiffure in Ancient and Medieval India*, Delhi, 1973, pp.10-15

⁶ Wilfred Schoff, *The Periplus of the Erythraean Sea*, New Delhi, 1974, pp. 179-263

⁷ J.W. Mc Crindle, *Ancient India as Described in Magasthenas and Arrian*, London, 1887, pp. 53-66

⁸ Kautilya, *Arthashastra*, vol-2, Tr. Radhey Shamashastri, Mysore, 1929, pp. 81-83

⁹ Moti Chandra, *op.cit.*, p. 124

¹⁰ Zahir Babar, *The Science of Empire*, Delhi, 1998, p.56

¹¹ Jagdish Chandra Jain, *Life in Ancient India as Depicted in Jain Canon and Commentaries*, Delhi, 1984, pp. 127-28

¹² Kasemendra, *Saranymartka*, (ed.) Durga Prasad and K.P. Parab, Bombay, 1925, pp. 20-23

¹³ H.K. Naqvi, *Urban Centers and Industries in Upper India (1556-1803)*, Bombay, 1968, p. 149



this century.¹⁴ It was an age of merchant capitalism. At this time, the activities of the Europeans helped in expanding the demand for certain types of goods which included a considerable proportion of handicrafts and manufactured goods.¹⁵

Cotton was a widely grown crop during the period under study. It was cultivated throughout the northern India.¹⁶ It was grown extensively in Lahore, Multan, Thatta, Byana-Medta track, Ajmer to Mandu, Malwa, Agra, Sirsa, Allahabad and Patna.¹⁷ Bernier mentions it as the major crop of Bengal.¹⁸ It is significant that industries or crafts became localized in the areas where raw material could be had in abundance and at cheap rate.¹⁹ In this sense the cotton textile industry was the most expanded industry during the period under study. No city, town, Paraganah, Casbah or village of north India seems to have been devoid of this industry.²⁰ Delhi, Agra, Lahore, Machhiwara, Sirhind, Samana, Lucknow, Benaras, Darybad, Khairabad, Allahabad, Jaunpur, Patna, Dacca, Murshidabad, Surat, Broach, Burhanpur were some of the important centers of the cotton textile industry.

The process of cotton textile production was based on manual labour. The manufacturing of cloth involved a number of distinct steps. First of all, cotton pods were plucked from the fields and the next step was to clean the raw cotton to make it suitable for spinning. Cotton with seeds was known as *binaulay dar ruyi* and was considered the inferior kind of cotton.²¹ Seeds (*binaulay*) were separated from the cotton by using the *Charkhi*,²² an apparatus which consisted of two wooden or iron rollers, made to revolve towards each-other by hand or foot labour connected by a crank or wheel. Seed-cotton was put at one side against the roller, the lint passed through and the seeds fell down in front.²³ Even after the seeds were

¹⁴ Satish Chandra, 'Commercial Activities of the Mughal Emperors During the Seventeenth Century,' *Essays on Medieval Indian History*, Oxford, 2003, p. 234

¹⁵ *Ibid*, p. 236

¹⁶ Irfan Habib, *The Agrarian System of Mughal India 1556-1707*, Delhi, 2005, pp.43-44

¹⁷ *Ibid*.

¹⁸ F. Bernier, *Travels in the Mughal Empire*, Tr. by A. Constable, Delhi, 2005, p.439

¹⁹ M.P. Singh, *Studies in Mughal Economy (1556-1707)*, Jaipur, 2000, p. 138

²⁰ H.K. Naqvi, *op. cit.*, p. 136

²¹ *Ibid.*, p 149.

²² Irfan Habib, *The Agrarian System....*, p. 63; see also Zahir Babar, *op.cit*, p.57

²³ G. Watt, *The Commercial Products of India*, London, 1908, p. 611



cleaned, cotton remained full of dirt and knots. It was very necessary to remove the dirt and dust of the fiber to make it fit for the spinning of yarn. So, the cotton was beaten with sticks. The most popular device to card the cotton was a bow-string. The bow was put in contact with a heap of cotton and the ginner would strike the strings with a heavy wooden mallet, the vibrations opened the knots of the cotton, shook off the dirt and raised it to a down fleece.²⁴ Cotton was carded by a special class of itinerant laborers called *dhuniyas*.²⁵ Thevenot mentions that cotton carders moved from village to village to offer their service.²⁶

The next step in the process of manufacturing was the spinning of yarn. Spinning was a popular domestic industry.²⁷ Peasant women spent most of their time in spinning. Yet the spread of professional spinning in India in 16th-18th centuries, linked with the growth of the weaving trade led to the further developments of the productive forces in spinning.²⁸ The spinning equipment consisted of two sets, one a spindle for finer yarns, the other the spinning wheel used for coarse yarns.²⁹ The spindle was made of metal, bone, ivory or wood.³⁰ Spindle was a rod with a bulge of clay at the end; the spinner turned it with the right, sometimes the lower end of the spindle was placed on a special support.³¹ While spinning, women used a chalky powder as a measure against perspiration³². The women working on spindle had to have quickness of sight as well as very nimble fingers to spin the finer thread like muslin.³³ On the other hand charkha was used to spin the coarser sorts of thread.³⁴ Charkha as a wooden wheel rotated by handle is mentioned by Amir Khusrau³⁵ and Isami.³⁶ Spinning

²⁴H.K. Naqvi, *op. cit*, p. 149,

²⁵ Irfan Habib, *The Agrarian System....*, p. 63;

²⁶ Thevenot, Voyage Domingo Thevenot, ed. Surender Nath Sen, *Indian Travels of Thevenot and Careri*, Delhi, 1949, p. 10

²⁷ A.I. Tchitcherov, *Changing Economic Structure in the 16th - 18th centuries: An Outline History of Crafts and Trade*, Delhi, 1998, p. 53

²⁸*Ibid*, p. 59

²⁹ H K Naqvi, *op. cit*, p 150

³⁰*Ibid*.

³¹ A.I. Tchitcherov *op. cit.*, p 59.

³² H K Naqvi, *op. cit.*, 151.

³³ A. I. Tchitcherov, *op.cit.*, p. 59

³⁴ *Ibid*.

³⁵ Amir Khusuru, *Ejaz-i-Kusuruvi*, c.f. H.K. Naqvi, *Agricultural Industrial and Urban Dynamism Under the Sultans of Delhi (1206-1535)*, New Delhi, 1986, p.55



being comparatively a lighter and less technical job was quite often done by women and almost every house in the village used to have its spinning wheel.³⁷ They produced thread even for the market.³⁸ The women, spinning cotton in Bengal, often sold their thread to the merchants or weavers.³⁹ Spinning of Yarn was considered a respectable profession for widows of even higher caste to earn their livelihood.⁴⁰

After spinning, the next process was weaving. It was done on loom. Indian weavers used different types of looms such as framers' looms, vertical looms and finally horizontal looms with treadles. Weaving was done by a skilled professional class. Hindu weavers were known as Kohri while Muslims as *jolaha*.⁴¹ Weaving was the leading trade in all the main regions of India in 16th- 17th centuries as regards the number of people employed and its role in the economy of the feudal society of that period.⁴² At the beginning of the seventeenth century, weavers accounted for the greater part of the population in such towns as Hoghly, Kasimbazar, Decca, Patna, Balasore, Surat, Ahmedabad, Barouch, Baroda and Burhanpur. Palsert also testifies that the population of Bengal town's Shahbaspur and Sonargaon including their surrounding villages---all live by the weaving industry and their produce has the highest reputation and quality.⁴³

After weaving, the cloth was sent for bleaching. During the period under study, bleaching became a specialized industry. The unbleached cloth brought from the professional weavers was delivered for washing and bleaching to the professional bleachers known as *dhobhi* in vernacular.⁴⁴ Bleaching involved the boiling of the cloth in a special solution. Then the cloth was washed and dried in the Sun. To give the pure whiteness to the cloth some

³⁶ Ishrat Alam, *Textile Technology in Medieval India*, Aligarh, p. 4

³⁷ H.K. Naqvi, *op. cit.* p. 150

³⁸ A.I. Tchitcherov, *op. cit.*, pp. 52-53

³⁹ *Ibid*, p. 61.

⁴⁰ *Ibid*, p. 58.

⁴¹ H.K. Naqvi, *op. cit.* p.145

⁴² A.I. Tchitcherov, *op. cit.*, p 145.

⁴³ Francisco Pelsaert, *The Remonstrantie*, Ed. and Tr. by P.Geyl and W.H. Moreland, *Jahangir's India*, Delhi, 1972 p 78.

⁴⁴ Eugenia Vanina, *Urban Crafts and Craftsmen in Medieval India (Thirteenth- Eighteenth Centuries)*, New Delhi, 2004, p.40



ingredients like lemon, soap, *khar*, or Soda carbonate and Sulphur were used by the bleachers.⁴⁵ According to Tavernier, lemon was an important ingredient in bleaching⁴⁶ A special variety of soap called Iraqi was considered the most effective in washing⁴⁷ Abraq or Mica was also used to give the cloth a glossy touch.⁴⁸ Boroda, Baroach, Ahmedabad, Surat, Dacca, Sonargany, Patna were some popular centers for bleaching.⁴⁹

Once the cloth was bleached, it was ready for further treatment with colours by dyeing and printing. Dyeing was a specialized profession and dyers were known as *rangrez*, *rangbal* or *rangari*.⁵⁰ Medieval dyers used colouring substances extracted from different vegetables, leaves, herbs, roots, barks, flowers and fruits. Makers of dyestuffs or dealers of dyestuffs were called *nilgiars*, *Ach-farosh* or *gulalsaz*.⁵¹ *Nuskha Khulastul Mujarrebat* describes forty-eight shades and seventy-seven processes of dyeing.⁵² Different shades were obtained from boiling the different parts of plants and herbs like Indigo⁵³, Rose, Turmeric, bark of Babul, Saffron, Heena, *Majestha* or Madder, *Kachnar* etc. Some mordants were also used to fix the dye on fabrics. Several ingredients such as lemon, flower of *Kapas*, lime, alum and sulphate of iron were used as mordants.⁵⁴

After dyeing different designs were printed on the cloth. Printing was comparatively more complex and tedious process. There were two prominent methods of printing: either by hand with a brush or with the help of engraved blocks of wood. Printing by wooden blocks was known as *Chhapa* and the printers as *Chapkar* or *Chippis*.⁵⁵ In block printing different designs were engraved on the surface of the small wooden blocks which were then dipped

⁴⁵ H K Naqvi, *op. cit.*, p. 157

⁴⁶ Jean Bepstiste Trvernier, *Travels in India*, Delhi, 2000 p. 6

⁴⁷ H K Naqvi, *op. cit.*, p. 157

⁴⁸ *Ibid.*

⁴⁹ A.I. Tchitcheroy *op. cit.*, p. 71

⁵⁰ Eugenia Vannia, *op. cit.*, p.40

⁵¹ H.K. Naqvi, *op.cit.*, p. 159

⁵² *Ibid.*

⁵³ Pelsaert, *op.cit.*, p.16.

⁵⁴ H.K. Naqvi, *op.cit.*, p. 159

⁵⁵ Eugenia Vanina, *op.cit.*, p. 40



into a paint and applied to the cloth.⁵⁶ This printed cloth was called Chintz.⁵⁷ The cloth painted by a hand brush was known as *Qalamdar* and this art was called *Qalamkari* which was only done over the cotton fabrics. Tie and dye was also a popular technique used by the dyers.⁵⁸ The art of Tie-dyeing (*bandhani*) was most popular in Gujrat, Kathiawar, Sind and Rajasthan.

During the period under study, a large variety of cotton fabrics were produced in North India. *Sabhasrveera* a literary work of sixteenth and seventeenth century mentions as much as 130 kinds of textile varieties.⁵⁹ Indian weavers were efficient to make any kind of colorful stuff and variety in Cotton. English factory records mention about 150 kinds of cotton textile.⁶⁰ Broadly, Indian cotton goods were recorded as Muslin (a super fine variety of cotton) and Calico (a thick cloth) in English factory records. Calico was the popular term used for the cotton clothes and it was known by different names at different places. For an instance, *Semianoes* (Punjab); *Amberty* (Bihar); *Eckbaries* (Awadh); *Marcolees* (Western Awadh).⁶¹ *Amberty* was a superior kind of white cotton and it was chiefly woven in Bihar at Patna and its adjoining areas. Gujrat produced the best kind of *Bafta*.⁶² *Chintz* was a very popular name for calico. The '*Chint*' is derived from Sanskrit word '*chitra*',⁶³ the term was used for printed or spotted cotton cloth. The dyers of the pieces of Chintz were called *Chitsaz* or *Chitgar*.⁶⁴ Agra and Delhi manufactured an export quality of Chintz which was sent to

⁵⁶ A.I. Tchitcherov, *op. cit*, II, p. 4

⁵⁷ Tavernier, *op. cit*, p. 72

⁵⁸ A.I. Tchitcherov, *op. cit*, p. 73.

⁵⁹ S. A. Natha, *Sabhasrngara, Kashi*, 1962, p.323, c.f. Eygenia Vanina, *Urban Crafts and Craftsman in Medieval India (13-18 Centuries)*, New Delhi, p. 30

⁶⁰ Tapan Ray Chaudhuri and Irfan Habib (ed.) *The Cambridge Economic History of India (1200-1750)*, Cambridge, 1982, p. 269

⁶¹ N. S. Gupta. *Industrial Structure of India during Medieval Period*, Delhi, 1970, pp. 91-92

⁶² Tavernier, *op. cit*, p. 54

⁶³ Hobson- Jobson, *A Glossary of Colloquial Anglo-Indian Words and Phrases*, (ed.) Henry Yule and A.C. Burnell, New Delhi, 1995, pp. 818- 19

⁶⁴ Irfan Habib, 'Textile Terms in Medieval Indian, Persian Texts-A Glossary,' *PIHC*, 64th session, Mysore, 2003, p. 529



England.⁶⁵ Doria was also a popular cotton stuff and chiefly produced in Benares, Bajwara and Machhiwara.⁶⁶

Thus, cotton textile industry during the seventeenth Century was the most expanded industry in northern India. It played a vital role in the economic growth of the country. Manufacturing of cotton textile was an elaborate process based on manual labour. Several varieties of cotton stuffs were produced by the Indian weavers, and they were in great demand in the foreign markets. These cotton varieties were so fine that they were given some symbolic titles like Aab-i- Rwan, *Shabnami* and *Sharbati*. Cotton textile was based on extensive labour division. Each and every task was accomplished by a different specialized professional group. During the period under study different classes emerged related to textile industry. Bleaching, Dying, Printing (Block printing and *Qalamkari*, all become specialized professions of particular skilled classes. With the help of his indigenous traditional tools and techniques, the Indian weaver had been contribution to the world economy and had established a unique identity in the world of weaving.

⁶⁵ William Foster (ed.) *English Factories in India (1618-21)*, Oxford, 1934 p.76

⁶⁶ H.K. Naqvi, *op. cit*, p. 180