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The Dhaka Muslin Industry

J.C. SINHA

The subject of this paper is the old muslin industry of Dacca [Dhaka] and its neighborhood. I shall not deal in this article with the Muslins produced here with British yarn. Comparatively speaking, these are coarser stuffs and their problems are somewhat different. Though well-known muslin is rather difficult to define scientifically. The distinction between it and ordinary cotton goods called 'calico' has never been accurately stated. The difference between the two is a matter of degree only as regards the fineness of texture. ...

The etymology of the word does not help us in this matter. 'Muslin", as is well known is derived from Mosul, a town in Mesopotamia where clothes of gold and silver were called Mosolins. The term had therefore originally a quite different meaning from what it has now.

The industry at Dacca came into prominence when this town became the capital of Bengal at the beginning of the seventeenth century. Before this period Dacca does not appear to have been a place of any political or commercial importance and naturally, we do not come across any reference to the muslin industry of this place prior to the reign of Jehangir. But the muslin of Eastern Bengal in general, dates from remote antiquity, at least two thousand years from today.

remonstrated in her justification that she had seven jamahs or suits on; and another, that in Nabob Allaverdy Khawn's time a weaver was chastised and turned out of the city of Dacca for his neglect, in not preventing his cow from eating up a piece of *abrooan* which he had spread and carelessly left on the ground."

What were the causes of this excellence of the Dacca muslins? According to some writers, it was due to the superior quality of the Dacca cotton. ...

Some writers like Sir Chalres D'oyly have remarked that muslin cotton grew on the low lands subject to annual inundation. But the majority of writers are of opinion that the land selected for this cotton was "high and dry". With regard to the tract where it grew there is also difference of opinion. Mr. [Joseph] Bebb, the East India Company's Commercial Resident at Dacca, says that the finest was grown to the north and east of Dacca. [Illegible] and that the cotton grown to the south were considered inferior. Mr. Taylor the author of the Topography and Statistics of Dacca also writes that "The northern division of the district produced the best cotton and, in the situation, specially the portion of it bordering upon the Megna and Berhampooter, in Sunergong, Capasia, Toke and Junglebaree in which this article was chiefly cultivated in former times.

But in his paper, "On the supply of Cotton



A woman in fine Bengali muslin; Dhaka, 18th-century

that of any other variety of Indian cotton. But it was certainly inferior to American cotton as regards the length of the staple and the fineness of fibre. The staple of the Sea Island cotton has more than double the length of the best Dacca cotton and the filaments of the latter were considerably thicker. The shortness of the staple of the Dacca cotton, though quite suitable for spinning the most delicate handspun yarn, was unsuitable for machine spinning. The Dacca spinners, on the other hand, failed to spin yarn out of the best American cotton. In 1811, the Commercial Resident sent a certain quantity of the Sea Island cotton to the different manufacturing stations connected with the Dacca factory. But the spinners could not work it into thread and claimed that the local fibre was superior for that purpose. This appears to have been due to the greater elasticity of the fibres of the Dacca cotton, which was capable of receiving more twists or turns in the process of spinning than the American cotton. One special quality attributed to the Dacca cotton by Mr. Bebb was that the thread made from it, did not swell after bleaching. But this was due more to the quality of the water used in bleaching, rather than to any special property of the cotton. The yarn spun at Dumroy [Dhamrai] which was reported by Mr. Bebb in 1788 to swell very much was in Taylor's days found to swell the least, if bleached at Dacca. "but the reverse if the water of Dumroy" was used in the process. In fact, the excellence of the Dacca muslins was due not so much to the special qualities of the cotton used as to

the superiority in spinning and weaving. The process of spinning was somewhat different from that followed in the case of ordinary handspun thread. In the case of cotton to be spun to muslin yarn, the dallun cathee and not the cherkee or gin, was used for separating the seeds from the wool. The former instrument was simply an iron rod rolled upon a [flat] wooden board. It was said to injure the fibre less than the gin. The next step as to tease the cotton with a small bamboo [bow] with a string made of catgut or mooga [silk]. The cotton used for the finest thread was carded with the dried jaw-bone of the Boal fist before it was teased. After these processes of carding and teasing, the cotton was spread upon the smooth surface of the dried skin of Cheetul or Cuchia fish and rolled up into a small cylindrical case. This was held in hand during the process of

Coarser yarns were spun on the spinning wheel or Charka as they are done now but fine varns from 100 counts and above were spun on the tukua or spindle. The tukua ws not thicker than a stout needle, from ten to fourteen inches in length. There was attached near its lower point a small ball of unbaked clay to give it sufficient weight in turning. A certain degree of moisture, combined with a temperature of about 82 degrees, was the condition of the atmosphere best suited for the carrying on this operation. The spinners generally worked from early dawn to 9 or 10 o'clock in the morning and from 3 or 4 o'clock in the afternoon till half an hour before sunset. The finest yarn was spun early in the morning before the rising sun dissipated the dew on the grass. When the air was unusually dry, it was spun over a shallow vessel of water. The evaporation from the water imported the necessary moisture to the cotton to enable the spinner to form it into thread.

The spinning of the finest yarn required such a delicacy of touch that it was confined to the women of a few families of Dacca and its neighbourhood. These female spinners had acquired skill through the hereditary continuance of this particular occupation for generations. About fifty years ago, the finest thread was made at Dhamrai. Mr. Wise wrote in 1883 that the few *katanis* or female spinners of muslin yarn in East Bengal, were to be found at that time only at Dhamrai. Fifteen years later, Mr. N. N. Banerjee remarked in his Monograph on the Cotton Fabrics of Bengal, "it is reported. though not with certainty that there are only two

persons at Dhamrai still living who can spin fine thread which was formerly used in the manufacture of muslins." I have made recent enquiries and it appears that the generation of women who spun the yarn of the finest fabrics has passed away.

About the fineness of the Dacca yarn, it is sufficient to say that a skein measured in the presence of Mr. Taylor in 1846 was upwards of 250 miles to the pound of cotton, i.e., the yard was of more than 520 counts. Even as late as 1883, as reported by Mr. Wise, 1 rati or 2 grains of the finest thread spun at Dhamrai measured 70 yards. Thus, the yarn was of 290 counts. It may be observed that the yarn used in an ordinary *dhootee* of 5 yds X 44 inches, manufactured in the Bombay mills, the retail price of which would now be about Rs. 2-8 as is from 20 to 24 counts only. Dacca yarn was at least 20 to 25 times finer.

It is often believed that our handspun yarn was finer than any ever produced by machinery even in England. This however is controverted by many who base their objection merely on the number of counts. The finest Dacca yarn did not exceed 550 counts but the machine-spun yarn of a piece of power-loom-woven muslin which was exhibited in the International Exhibition of 1862, was stated to have been of 700 counts The manufacturer of this piece however admitted that his yarn "was too imperfect for any purpose, except to fix the limits of fineness at which" machine-spun yarn could

The lack of uniformity of thickness of the handspun thread was however not wholly a disadvantage as the transparency of the Dacca muslins was ascribed to this factor. In fact, the real disadvantage of the handspun yarn was that it was so costly and involved so much trouble in procuring the thread of a certain quality. Taylor writes that two-thirds of the time occupied in preparing fine muslins, were spent in searching for suitable thread in the different marts of the district. Considering the time and skill required in spinning very fine yarn, it is but natural that it was so costly. According to Taylor the maximum quantity of very fine yarn which a spinner could make in one month, devoting the whole morning to the spindle, was only 1/8 a tola or 90 grains (troy). This gives a daily output of 3 grains only. In spite of the rude appliances used, this infinite patience taken and the delicacy of touch were the real causes of the excellence of the Dacca yarn which machine-spun thread has failed to attain even to this day with the same quality of raw material.

The same causes were responsible, in addition to the fine quality of the yarn used, for the fame of the "wind-woven" fabrics of Dacca. Contrary to what is generally supposed, the actual processes of weaving the Dacca muslins and the appliances used were much the same as those used in the case of the fine handloom products of today. In the manufacture of fine muslins, the shuttle used was however considerably lighter. Not far off from the Nawabpur Road in this town, I found the weavers carrying out practically all the processes of weaving described by Taylor more than seventy year ago. It is not therefore necessary to describe all these processes. There is only one point that deserves mention, viz., that a certain degree of atmospheric moisture was necessary for weaving fine muslins. When it rained heavily and the air was very moist, a slow fire was kept under the loom. In very dry and hot weather, it was sometimes necessary during the operation of weaving, to place beneath the extended yarns of the warp of the loom, a few shallow vessels of water. The evaporation imparted the necessary moisture to the yarn and prevented them from breaking. This practice gave rise to the erroneous notion that Dacca muslin was sometime woven under water. ...

It is true that there were many subsidiary causes, both external and internal, which affected adversely the muslin industry of Dacca The British tariffs of the eighteenth and the first quarter of the nineteenth century, the outbreak of the French Revolution, the Milan and Berlin decrees of Napoleon, the Industrial Revolution in England, the general insecurity of this country after the death of Aurangzib, the oppression on the weavers and monopolistic control under early British



Advantages of wearing Muslin Dresses! — dedicated to the serious attention of the Fashionable Ladies of Great Britain Js. Gillray, 1802

The earliest apparent reference is in Kautilya's Arthasastra which alludes to the fine cotton fabrics of Vanga or Eastern Bengal. The muslin called Gangitiki in the Periplus of the Erythraean Sea, an anonymous publication of the 1st century A.D. most probably came from East Bengal. Sulaiman, the Arab traveller who visited India in the ninth century, seems also to refer to the fine muslins of Eastern Bengal when he remarks that "cotton fabrics made in the Kingdom of Rahmi (which has been identified with East Bengal) are so fine and delicate that a dress made of it, may pass through a signet ring". In Marco Polo's days (A. D. 1294-95), the chief centres of cotton Weaving in India were Gujrat, Cambay, Telengana, Malabar and Bengal. Ralph Fitch the English traveller who visited India three centuries ago (1583) describes Sonargaon, which about 13 miles south-east from Dacca "as a town where there is the best and finest cloth made in all India". About the same time, Abul Fazl writes "the Sarkar of Sonargaon produces a species of muslin very fine and in great quantity".

But the muslins of this part of Bengal did not yet attained the world-wide celebrity which they later on enjoyed. Their subsequent development was mainly due to the patronage of the Imperial and Vice-regal courts and the increased demand for them by the European traders. ...

The English first exported the Dacca muslins in England about the year 1666 and by the year 1675 the fashion of wearing these fine stuffs, whether the costlier fabrics of Dacca or the cheaper muslins from other parts of the country became pretty general in England. We learn from the *Diaries of Streynsham Master (1675-1680)* that besides Dacca, muslin was produced at that time at Santipur, Maldah and Hughli. But this industry was not confined to the province of Bengal alone. Even at the beginning of the seventeenth century, very fine cotton goods were produced at Agra, at Sironj in Malwa, at Broach, Baroda and Navsari in Gujrat.

But the finest and best muslins were certainly produced at Dacca which received such poetic names as ab-e-rawan or running water (because if placed in a stream it could scarcely be seen), baft hawa or woven air (because if thrown in the air it would fly like a cloud) and shabnam or evening dew which took its name from the fact that when spread on the ground it could scarcely be distinguished from the dew on the grass. ...

"The Hindoos" writes Bolts (in his Considerations on India Affairs, 1772 A. D.) "amuse us with two stories as instances of the fineness of this muslin i.e. ab-i-rawan. One, that Emperor Aurangzeb was angry with his daughter for showing her skin through her clothes whereupon the young princess

from British India (1827)," Mr. George Tucker remarks that the favourite site of the muslin cotton "seems to be high banks of the Ganges and its tributary stream." In the midst of such conflicting evidence it is difficult to point out the exact region where Muslin cotton grew, but in any case, it was certain that it was entirely the produce of the Dacca District.

Even the vernacular name of this cotton it well-nigh forgotten. Mr. George Tucker and a host of other writers have spoken of the finest



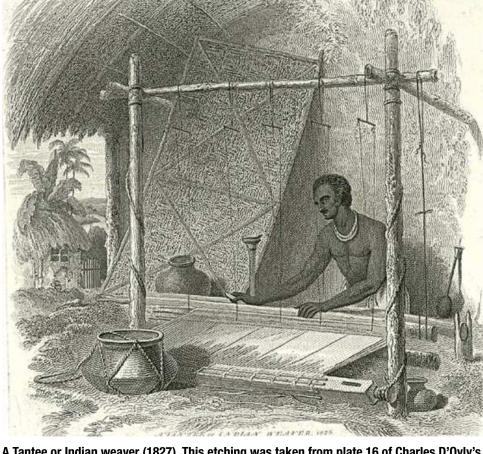
Portrait de Joséphine (ca. 1801) by Baron François Gérard. Dhaka muslin was a favourite of Joséphine Bonaparte, the first wife of Napoleon.

of Dacca cotton as bairati kapas, but Mr. Bebb calls it photee. Mr Krishna Kumar Basak, now an old man of eighty [1925], of Lalchand Mukim's Lane, Nawabpur, Dacca who himself wove muslin in his younger days told me that photee was the name of muslin cotton. ...

We learn further from the letter of the

Commercial Resident of Dacca dated the 30th November, 1800 that this cotton plant was an annual one and that two crops were raised, one in April-May and the other in September-October. The former yielded the finest produce. The seeds of the cotton were kept with the wool on them during the rainy season and in order to preserve them from damp, they were put into an earthen jar, smeared inside with ghee or oil. This vessel, with its mouth closed up, was generally hung from the roof over the spot where the fire was kindled. All authoritative evidence is against the view that Dacca cotton was a long-stapled tree cotton. In fact, all the early writers like Buchanan-Hamilton, Bebb, Tucker, Roxburgh and Taylor allude to the Muslin cotton as a short-stapled annual plant. One of its special characteristics was that the wool adhered "most tenaciously to the seed.".

Wherein lay the superiority of the Dacca cotton? As might be expected, its staple was in fact longer and its fibre finer and silkier than



A Tantee or Indian weaver (1827). This etching was taken from plate 16 of Charles D'Oyly's "Antiquities of Dacca".

be woven by the power-loom. Regarding another such specimen of machine-made muslin of 440 counts, Forbes Watson remarked that a comparison of this with a piece of Dacca muslin of which the yarn was calculated to have been of 406 counts only, it was clear, though it may sound paradoxical, that the Dacca piece was finer. The average diameter of the yarn of the former piece was .00222 inch while that of the latter was .001526 part of an inch. This must have been due to the fact that the Dacca threads spun by hand, received more twists in the process of spinning and was more compressed than machine-spun yarn. The greater number of twists received per inch of yarn explains also the superior durability of the Dacca muslins.

It has also been said by many writers that handspun yarn had another special quality, viz., that it became stronger and finer after bleaching, whereas the reverse was the case with regard to machine-made yarn. But the latter had two advantages. It was cheapest and of more uniform thickness.

rule, the Great Famine of 1770, the artificial encouragement of English manufactures by low import duties with the right of entrance to the furthest part of India free from any transit duty and the heavy transit duty on Indian manufactures with no drawback of such duty on their export all these factors have been partly responsible for the decline of the muslin industry. But the real cause at work, especially in the case of the finest fabrics of Dacca, was the lack of patronage of the imperial and vice-regal courts. With the advent of British rule this patronage came to an end and the muslin industry naturally declined.

J.C. Sinha was the Chairman of the Economics Department at the University of Dhaka from 1925 to 1935.

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