

From market-determined to coercion-based: Textile manufacturing in eighteenth century Bengal¹

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I

For many centuries prior to the nineteenth, India had been a major producer and provider of textiles of all kinds. Textiles were manufactured in large quantities all over the subcontinent to provide for consumption in the domestic, the Indian Ocean as well as the world market. While an overwhelming proportion of the total domestic demand for this basic consumption good was obviously met through local village level production involving very little, if at all any, trade, the proportion of total output entering regional or sub-continental trade was by no means entirely insignificant. This was particularly true of trade in luxury textiles where the element of regional specialization was of particular importance. One might also note the large-scale long-distance trade in textile raw materials. One only needs to draw attention in this behalf to the large scale dependence of the Bengal cotton textile sector on the import of cotton from Gujarat which, in turn, depended for its silk textile sector mainly on the raw silk imported from Bengal.

Beyond the subcontinent, in the west, Indian textiles were traditionally a familiar item in the markets of the Middle East, and via these markets, to a limited extent in the markets of the Mediterranean. The fifth century A.D. cotton fragments discovered at Berenike, a harbour site on the Egyptian side

of the Red Sea, are the earliest patterned textiles of Indian origin so far recovered from an archaeological context. In the east, Indian textiles were traded on a much more substantial scale in mainland and island southeast Asia. A number of Indian textiles acquired from Sulawesi in Indonesia, for example, have been carbon-dated to the 14th – 15th century. Textiles have reigned as a dominant aesthetic in Indonesia for centuries and have played an important role in various ceremonies in the islands. Indian textiles were quickly assimilated to fit local sensibilities and subsequently were encoded with indigenous meaning.

With the rise of an early modern world economy, there was a significant increase in the volume and value of trade in Indian textiles both in the markets of the Indian Ocean as well as of those in Europe and the New World. The unquestioned domination of Indian textiles in the Indian Ocean trade has to be understood essentially in terms of the subcontinent's capacity to put on the market a wide range of textiles at highly cost-competitive terms making it in some sense the 'industrial' hub of the region surrounded by west Asia on one side and southeast Asia on the other. As far as the European market was concerned, the quantum jump in the volume and value of the Indian textiles exported by the European corporate enterprises, mainly the Dutch and the English East India Companies, took place from the last quarter of the seventeenth century onward. This was an outcome essentially of a revolutionary change in European fashions putting Indian fine cotton and silk textiles right at the top of the fashion ladder. These textiles suddenly found favour with the European nobility and aristocracy, reportedly including even the English queen.

¹ This is a preliminary draft and should not be quoted without the author's written permission.

Regional specialization in the subcontinent in the manufacturing of textiles was an important element in the history of the textile sector over the centuries. Coromandel on the south-east coast of India had traditionally been the leading manufacturer of relatively inexpensive cotton textiles which were either plain or patterned on the loom. They were often dyed in bright colours with plant dyes. While both inferior and superior grade cotton textiles were manufactured in large quantities in Gujarat, the region also provided high-grade silk and mixed textiles. Bengal was the other major textile producing region in the subcontinent specializing in the production of luxury cotton, silk and mixed textiles. Given this pattern of specialization, it is not surprising that the relative share of Bengal textiles in the Indian Ocean trade - which was largely a low-cost market - was only of limited significance. But since the European market was essentially a luxury textile market, it was dominated from the very beginning by the textiles woven in Bengal. Some idea of this domination would be conveyed by the fact that at the turn of the eighteenth century, as much as 40 percent of the total cargo exported to Europe from Asia by the Dutch as well as the English East India Company originated in Bengal and consisted in a large measure of textiles and raw silk.

The European corporate enterprises procured cotton, silk, and mixed cotton and silk textiles in Bengal. Among the cotton textiles, the principal division was between the muslins and the calicoes. Of the two, muslins were more loosely woven and, on an average, were made of finer yarn. The best quality muslins were produced in the district of Dhaka, where a particularly well-known centre of production was Sonargaon, situated at a distance of about fifteen miles east of the city of Dhaka. The names of some of the Dhaka muslins were *shab-nam* (evening dew), *ab-i-rawan* (running water) and *bakt-hawa* (webs of woven wind). According to Tavernier,

muslins “are made so fine, *you can hardly feel them in your hand*, and the thread, when spun, is scarce discernible”. The staple varieties of muslins procured by the Europeans were *khasa* and *malmal*, both plain muslins of good quality. However, quite a few of the pieces procured were brocaded in gold, silver, or silk threads, usually in floral patterns. Many of the pieces also had their borders woven in gold threads.

Textile production was without any doubt the premier manufacturing industry in early modern Bengal as indeed it was in many other parts of the subcontinent. What is it that we know about the way it was organized, the methods of procurement for purposes of trade, the volume and value of trade by the Indian and the European merchants, the scale of the industry’s output, its cost structure and the profitability level and so on? Briefly, what we do know in great detail is the volume and value of the Bengal textiles procured by the European corporate enterprises for export to Europe and other parts of Asia. As far as Indian and other Asian merchants involved in trade in Bengal textiles were concerned, such information is available only on an extremely casual and sporadic basis. What we also know in great detail is the way the manufacturing production and procurement was organized. However, we know practically nothing about the volume and value of textile output in the region, the cost structure of the industry or the level of its profitability. It is only occasionally that one gets a brief glimpse of these things and only in relation to a specific production area in the province. What we will do in this paper is to first recapitulate in Section II very briefly whatever we know in respect of these variables (except for the volume and value of trade) for the seventeenth and the first half of the eighteenth century. In Sections III and IV, we will discuss in some detail the situation in the second half of the eighteenth century which, among other things, witnessed a fundamental alteration in the conditions under which

manufacturing production and procurement of textiles was carried out. This was a direct outcome of the availability of substantive political leverage to the English East India Company in Bengal following the battle of Plassey in 1757 and the grant of *diwani* rights to the Company in the province in 1765. It so happens that for this half of the century, we are somewhat better informed about variables such as the cost structure of the industry, the level of profitability and so on. This information is contained in an extensive documentation available in the archives of the Dutch East India Company for this period. This documentation pertains essentially to the correspondence between the Dutch and the English East India Companies regarding the alleged hindrances being placed in the textile procurement of the former by the latter. The really valuable information is often contained in the many annexures to the correspondence. While many of these documents will be used, the report of the Dutch factor on a joint English-Dutch-French mission of 1767 to ascertain the relevant facts will be used in some detail to bring out the nitty gritty of the altered situation.

II

Working on the basis of the cotton yarn procured from the spinner, the basic unit of production in the manufacturing of textiles was the weaver operating as an independent artisan. To a certain extent, the production of standardized varieties of textiles for traditional markets was carried on on the basis of the weavers' own resources and at their own risk. There is evidence, for example, that several varieties of comparatively coarse cloth were produced on this basis in the district of Malda in north Bengal for eventual sale to merchants engaged in trade with Pegu, north India (Hindustan) and Persia, which had traditionally been important markets for

these varieties. The bulk of the marketed output, however, was produced on the basis of an agreement between merchants – many of whom were intermediary merchants known in Bengal as paikars – and weavers specifying details such as the quantity to be produced, the price and the date of delivery. A part – often a substantial part – of the final value of the contract was given in advance to enable the weaver to buy the necessary raw materials as well as to sustain himself and his family during the period of production. Clearly, the three key elements in this system were the weavers' need of finance, their relatively limited access to the market, and a desire on their part to avoid risks arising out of their inability to forecast correctly the behaviour of the demand for a given variety of textiles. This structure, which could be described as the contract system, was essentially a variant of the standard European putting-out system. Unlike in the European case, the Indian weaver bought his own raw material and exercised formal control over his output until it changed hands. Of course, the merchant who had given the advance had first claim on the output, and debt obligations often rendered the artisans subject to coercive control by the merchants.

Though grossly inadequate and perhaps not entirely representative, the available evidence on the weavers' costs and the merchants' mark-up enables us to form some idea of the magnitudes involved. A 1670 report on Malda in north Bengal suggested that standardized textiles worth Rs.800,000 to Rs.1 million were sold in the district annually for export to places such as Pegu, Agra, Surat and Persia. If these were bought against cash directly from the producers who brought them into Malda rather than from the intermediary merchants, the saving in cost would be between 12 and 15 per cent. The mark-up by the merchant would, of course, be substantially greater under the contract system to compensate him for the additional risks borne. These risks were not inconsiderable. For example, a

sudden rise in the cost of living in the wake of a famine, or the appointment of a particularly tyrannical official in a given area, might lead to a mass migration of the poor weavers to a more convenient location, to the great discomfiture and loss of the merchants who had entered into contracts with them and given them advances. Some data relating to 1686-7 in respect of khasas, a staple variety of muslin procured by the Dutch East India Company in fairly large quantities in Bengal, suggests that about two thirds of the price obtained by the weaver covered the costs of the raw material, the remainder being the reward for his labour. The mark-up by the intermediary merchant (calculated on the basis of the price agreed upon at the time of the contract between the Company and the merchant) was 35 per cent in the case of grade I, 55 per cent in that of grade II, and as much as 142 per cent in that of grade III.

The European corporate enterprises made use of the existing procurement organization, though in course of time they did indeed introduce modifications and innovations with varying degrees of success in a variety of directions aimed at solving specific problems that they encountered. An important functionary made use of by the Europeans was the dalal (broker), an Indian employee with an intimate knowledge of both the local market and the intermediary merchants. He was ordinarily a salaried employee, and his duties included collecting information about the market price of various goods as well as identifying merchants with a good reputation for honouring contractual obligations. These merchants were brought by the dalal to the relevant company and each of the merchants willing to supply at mutually agreed terms. In the case of textiles, the agreement specified the quantity to be supplied, the period of delivery, and the price per piece of each of the different varieties contracted for. The merchants had the goods manufactured mainly on the basis of the contract

system which, as we have seen, obliged them to give a part of the value of the contract to the producers in advance. The merchants, therefore, insisted that the company similarly give them an advance, which in the case of Bengal was ordinarily between 50 and 65 per cent. The intermediary merchants who did business with the Europeans were an extremely heterogenous group. In the case of the VOC in Bengal, at one end it included merchants such as Khem Chand Shah, who engaged in large-scale domestic and overseas trade and who owned several ships. At the other end, there were marginal merchants who genuinely could not have operated except on the basis of the advances received from the Company. Once the goods were delivered into the Company's warehouses, the deviation from the samples was worked out and the price finally paid to the merchants was adjusted accordingly.

There were occasional deviations from this broad structure of procurement. At places such as Dhaka and Pipli, for example, the VOC is known to have used the services of commission agents (also called *dalals*) to procure export goods. The agent was given a certain amount of money, which he invested among the weavers on behalf of the Company and at the Company's risk. After the goods had been delivered, the agent was entitled to a 2 per cent commission (*arhat*) on the total value of the transaction. Another interesting functionary whom we come across is the head weaver (*hoofed weaver*). His precise status is not clear, but he acted as an intermediary between the weavers and the buyers of their produce. He appears to have exercised some authority over the members of his community, ensuring a certain amount of regularity in the supplies. His services were often utilized by the intermediary merchants, who would enter into a contract with him and give him an advance. On the limited occasions on which it was able to do so, the Company dealt directly with the head

weavers and saved on the margin of the intermediary merchants. Thus, in 1670, a head weaver of Hugli agreed to supply fotas – an ordinary calico – at Rs.70 per twenty pieces, whereas the merchants were asking for a price of Rs.90. The corresponding figures in the case of sailcloth were Rs.36 and Rs.43 respectively. Such deals, however, had to be made very discreetly because the intermediary merchants were always on the lookout to sabotage them.

By far the most important problem the corporate enterprises faces in the procurement of textiles was the emergence of bad debts. The intermediary merchants almost always supplied less than they had undertaken to, either because the producers had not fully honoured their obligations toward them or because they themselves had chosen to divert a part of the goods procured to a third party at better terms. Second, of the goods received by the companies, a part was usually found unacceptable as being of too poor a quality. Finally, even in respect of goods accepted, for reasons of quality deviation, the final price paid to the merchants was ordinarily lower than that originally agreed upon. The result was that quite often the value of the goods accepted by a company from a particular intermediary merchant was less than the sum of money given to him in advance. The balance constituted a bad debt. Preventive measures taken by the VOC in Bengal included a closer investigation into the credentials of the intermediary merchants before contracts were given out to them, and a denial of fresh contracts to those of them who owed money to it. But since the Company did not want to lose the bulk of its suppliers to its rivals, the latter measure was invoked only in the case of habitual offenders. The others were simply required to clear at least a part of their earlier obligations simultaneously with the new ones.

The emergence of bad debts was not the only problem the companies faced. Another serious problem was the receipt of goods from the intermediary merchants much later than the date mutually agreed upon. Part of the explanation lay in non-adherence to the schedule by the artisans, but in some cases at least the delay was deliberate. The delivery of goods only a few days prior to the scheduled departure of the ships left very little time for the factors to examine the goods received carefully, thereby increasing the chances not only that substandard items would be accepted but also that they would be evaluated at the same price as the others. Also, the fact that the quality of the goods received was usually poorer than that of the samples given to the intermediary merchants had important ramifications other than contributing to the emergence of bad debts. Given the structure of demand in most of the markets supplied with Indian textiles by the companies, the loss in total revenue consequent upon a deterioration in the quality offered was usually much greater than the saving in total cost. Various measures were taken at different points in time by the companies to solve these problems to the extent possible. But given that, on the whole, the rate of growth of the Europeans' demand for Indian goods far exceeded the rate of growth of their supply turning the market increasingly into a sellers' market, the companies were not really in a position to impose punitive measures on the suppliers with any degree of success. Indeed, in 1709 a number of textile suppliers dealing with the Dutch Company refused to accept fresh contracts unless the Company gave them an assurance that henceforth in the event of only a limited variation between the quality of the sample given out and that of the pieces actually supplied by them, there would be no deduction made from the price mutually agreed upon at the time of the contract. The suppliers even insisted upon a refund of the price deduction made on this count on textiles supplied during the preceding

season. A similar distinct improvement would also seem to have taken place in the bargaining strength of the weavers vis-à-vis the textile suppliers. Writing in 1700, for example, the Dutch factors at Hugli made the following observation: “The merchants inform us (and on investigation we find that they are speaking the truth) that because of the large number of buyers in the weaving centres and the large sale of textiles, the weavers can no longer be coerced. They weave what is most profitable for them. If one does not accommodate oneself to this situation, then one is not able to procure very much and the supplies go to one’s competitors”.

III

At one level, the principal casualty of the assumption of political authority by the English East India Company in Bengal following the battle of Plassey in 1757 was the unqualified freedom hitherto enjoyed by the intermediary merchants and weavers in the province to decide who to do business with and on what terms. Larger and larger sections of these groups were now coerced into working for the Company alone at unilaterally determined terms which were substantially below the market. This made it impossible for the European rivals of the Company – mainly the Dutch and to a smaller extent, the French – to procure an adequate quantity of textiles. Within a few months of Plassey, the English factors were reported to be forcibly taking away pieces woven for the Dutch. In October 1758, when the Dutch protested against the English highhandedness in having pieces under production for their Company torn away from the looms, the English officials promised redress but nothing was actually done. In the early 1760s, the Commercial Residents at Malda and Midnapur were instructed to ensure

that the best weavers of Jagannathpur, Olmara and the neighbouring *aurungs* worked exclusively for the English.

The public posture adopted by the English was, however, quite different. A Fort William public notification dated 28 April 1775 asserted unambiguously “that the weavers of the province of Bengal and Bihar should enjoy a perfect and entire liberty to deal with any persons whom they pleased and that no person should use force of any kind to oblige the weavers or other manufacturers to receive advances of money or to engage in contracts for the provision of clothes against their will, and that all persons offending against this order should suffer severe punishment”. It was against this background that the Dutch proposed to the English in 1767 that they should be assigned weavers in the various *aurungs* who would then be allowed to work for them without hindrance. The result was the setting up of a joint investigative mission of the English, the Dutch and the French East India Companies. It is the report of the Dutch representative on this mission that together with several other documents for this period constitutes the core of the material analysed in the rest of this paper.

The mission was formally set up on 4 March 1767 with Johannes Martinus Ross as the Dutch representative on it along with his deputy Martinus Koning. The English representatives were John Bitter and Claude de la Porte while the French East India Company was represented by Roeland and Des Granges. Ross’s instructions (formally signed by Director George Louis Vernet only on 22 April 1767) stipulated that he along with Koning would report to English governor Henry Verlest at Calcutta wherefrom they would proceed together with the English and the French representatives to the textile *aurungs* (a localized centre of textile manufacturing) to “investigate the best procedures to be followed to put out the contracts so that each of the three nations was served satisfactorily.

Towards that end, you would make an accurate estimate of the amount of land in each aurung which was used for planting cotton as well as of the average annual output of cotton in each aurung. You would also find out the number of weavers and classify them as being of excellent, middling or poor quality". The mission was also directed to find out the number of pieces of a specified fineness that a weaver could be expected to weave in the course of a month. Ross was also asked to find out if there were persons available locally for appointment as head-dalals of the Company to whom funds could be entrusted safely.

Further, since within each aurung, textiles of different quality were produced and bleached in different hamlets of the aurung, a precise investigation was to be carried out behind the reasons accounting for this phenomenon. Was it due to inherent differences in the workmanship of the weavers belonging to different hamlets or was this a function of the differing quality of water used for bleaching purposes. It was known that textiles woven in one aurung were often bleached in another for good results.

Finally, Ross was told that with a view to deriving the maximum benefit from a mission such as this, he was to collect precise information regarding the varieties of textiles produced in each aurung, the prices at which these were available there, and the varieties that could be bought or sold there at a profit. Any differences with regard to weights and measures used in these aurungs as compared to Hugli were also to be recorded.

Ross and Koning travelled to Calcutta on 11 April but were told by Bitter and La Porte that they would not be ready for the trip for another two weeks. A message was subsequently received at Hugli from La Porte that the mission would start on 4 May and that they would expect the Dutch representatives to join them at Duarhatta, an aurung under the Haripal factory of the English. The team would start with the aurungs of Haripal and

Dhaniakhali and then go on to Chandrakona. The English would then return to Calcutta while the Dutch and the French could continue with the mission to Santipur etc. This violated the agreement between the English governor and the Dutch director finalized in February 1767 that all aurungs where textiles were manufactured would be visited by the full team.

The Dutch team left on 23 April for Calcutta where the French had already arrived two days earlier. When the question of the number of aurungs to be visited was raised with governor Verelst, he replied that it was John Bitter who had questioned the advisability of doing all the aurungs in one trip. Verelst reiterated that the basic purpose of the mission was to have an accurate estimate of the weavers facilitating a satisfactory procurement of textiles by each of the three nations.

When the representatives of the three companies met at Bitter's house at Calcutta, Ross suggested that in order to save on time and expenses, it would be optimal to begin at Chandrakona, go on to Santipur, Kasimbazar and Bhagwangola, then cross the river and visit the aurungs at Malda, Buddaul, Jagannathpur, Handiaal, Dhaka, Bhusna and Bureng before returning home. But the English insisted that they could not be away from Calcutta for so long and would, therefore, insist on visiting Haripal and Dhaniakhali first. The Dutch and the French had no option but to agree. That is what explains the fact that the detailed quantitative information presented later in the paper pertains to these two aurungs. The only other aurung for which detailed information is available is that of Chandrakona. Having agreed to meet at Duarhatta on 4 May, the group dispersed.

Ross and Koning reached Haripal on 28 April. The Dutch gumashtas, however, called on them only on 1 May. By way of an explanation, it was pointed out that the fear of the English was such that all dalals and head weavers had been busy greeting Bitter at Duarhatta with fruit and other gifts.

The Dutch intermediary merchant Samram who had been sent from Calcutta to Khattorah (under the Haripal factory of the English) with instructions to join Ross at Duarhatta also joined him on 1 May. He reported that there were about 400 weavers at Khattorah each capable of producing on an average two pieces of yarn rumals each month making a total of 9,600 pieces per annum. All the weavers were obliged to work exclusively for the English. The French had put out some contracts last year but all the pieces being manufactured for them were cut off the looms and the weavers concerned meted out both bodily and monetary punishment.

Samram was asked to send a circular letter to all the Dutch gumashtas and merchants to visit Ross together with their dalals. When asked why there were serious shortfalls in the supplies against the contracts of the preceding year, the unanimous explanation offered was the high handed behaviour of the gumashtas of the English Company and the private English traders. The English Company had reportedly forced fresh contracts on the 28th of April on the best weavers in this aurung worth 155,000 sicca rupees. This amounted to each weaver being made to accept advances in respect of the maximum amount of production that he could expect to achieve in a year's time. The private English traders were equally aggressive. Amounting to 37 in number, these individuals were completely indifferent to what they contracted for and what price they had to pay as long as they could earn a return of 9 percent per annum on their investment. They had brought in as much as 350,000 sicca rupees for investment in the aurung. The deadly combination of the violence resorted to by the English Company and of the substantially higher prices offered by the private English traders worked towards the utter ruin of the Dutch Company.

A visitor to Ross told him under a guarantee of his name being kept secret that the English had expressly prohibited all dalals and weavers from

declaring that they ever impeded the work of procurement by the Dutch. When they were asked to present themselves at Duarhatta, they were to take the position that they served the Dutch as faithfully as they did the English. Ross was surprised that the head-gumashta of the English had even considered it necessary to recommend such a course of action to them. The fear of the English among the gumashtas and the weavers was so all-pervasive that “an English peon or an employee of equal rank was held in greater esteem by them than he (Ross) himself.” There was thus no real risk of their ever declaring that they were made to discriminate against the Dutch.

On receiving information that the English had reached Duarhatta, Ross and his deputy joined them and the French there. The purpose of the English alerting the gumashtas and the dalals on the lines above became clear to Ross when he found that Bitter and La Porte were interpreting the purpose of the mission as being an investigation into the complaints of the Dutch regarding textile procurement. The Dutch were thus the complainants, the gumashtas and the weavers the persons against whom the complaints had been made, and the English the judges. This was completely contrary to the assurances given to Ross by governor Verelst at Calcutta on 24 April when he had reiterated that the purpose of the mission was to make an accurate estimate of the number of weavers and so on. The French supported Ross's stand but Bitter stuck to his position. He suggested that in order to prevent future disputes, all the pieces produced in the aurungs should be appropriated and then divided among the three companies according to their requirements. Any pieces left over were to be made available to the English private traders. When Ross pointed out that this plan was completely impractical, he was told that he was not genuinely interested in the redressal of the Dutch grievances. At this point the Dutch

and the French left the meeting in protest. That is how the mission started its work.

On 6 May, Bitter ordered the arrest and despatch to Calcutta of the six weavers who had been complaining and agitating over the preceding two months about the excesses of the English gumashtas and of the low prices paid by them. The effect of this was the spread of terror among the artisans so much so that the dalals and weavers of Haripal who had earlier promised to Ross that they would jointly and publicly protest against the excesses of the English gumashtas lost their nerve and backed out of their commitment.

At a dinner hosted by Ross for his English and French colleagues on 12 May, the deputy English representative La Porte, who had arrived before Bitter, was told that in view of the English order of 9 May to the weavers that over the following three months, on pain of the severest punishment, they would work for nobody other than the English, the Dutch had been unable to put out any contracts at all. The weavers still owing nearly half of the advances given by the company in the preceding year were even offering to return them. This was because they were complaining that the English gumashtas had forced upon them contracts and advances worth more than what they could expect to produce in the course of a whole year. The weavers to whom the English had put out their contracts were precisely the ones who had always worked for the Dutch and still owed them supplies against the advances of the preceding year. All that La Porte did by way of a response was simply to shrug his shoulders saying that this could not be helped.

The next day Ross told Bitter that his belief that the aurung of Haripal was capable of producing annually only 48000 to 50,000 pieces of textiles was misplaced and that the actual production capacity was between 90,000 and 100,000 pieces. He added that even the latter number could be

enhanced considerably “only if the English desisted from using violence and force on the weavers and restored their freedom completely”. In the meantime, an order had arrived from governor Verelst for Bitter saying that “the procurement of textiles for the English Company was to be regulated in such a manner as to cause the least hindrance to the procurement by the Dutch”. Bitter also admitted that the aurung could probably produce 60,000 pieces annually and that the English had put out contracts for 36,000 pieces. That left 24,000 pieces for the Dutch whose duty it was to ensure that their gumashtas got hold of the necessary number of weavers. Ross asked the simple question that if the entire lot of 24,000 pieces was to be treated as available to the Dutch, what would happen to the procurement by the French, the English private traders who had already sent in as many as 350,000 sicca rupees for investment in the aurung, besides other traders.

The English involvement in the mission came to an end on 11 June, when Bitter was instructed to proceed to Chandrakona. Ross and his deputy decided to continue on the mission and left for Dhanikhali in the same aurung on 19 June with the intention of continuing southwards in the direction of Khirpai and Chandrakona. As for the French, Roeland excused himself from the mission thus paving the way for Des Granges to become the leader of the French assisted by one Nicolai de Faranse. The curtailed mission decided to begin with Haripal and Dhaniakhali.

Addressing the issue of the cultivation of cotton first, Ross pointed out that the local term used for the product was *kapas* and that it was grown in shrubs two to four feet high in three or four cornered balls with three kernels each. The varieties grown locally was called *kali* which yielded a thinner yarn than the *baga* and the *muri* varieties, the former of which was grown in Birbhum and used in the manufacturing of *garras*. The *muri* kapas, yielding the finest yarn was grown in the areas surrounding Dhaka which were either

stony and sandy or had dense forests. This yarn was used for the manufacturing of the fine Dhaka varieties.

The *kapas* grown in and around the aurungs of Haripal, Dhaniakhali and Chandrakona was of a similar variety and the number of fields planted was strictly regulated in accordance with the amount likely to be consumed locally. There was thus no trade whatever carried on in the locally grown cotton. A bad crop then involved a rise in the price. In 1767, which was marked by an average crop, the price ranged between 8½ to 7½ ceers per sicca rupee. The equivalent of 8 ceers was 11½ lbs. Once the cotton had been cleaned of the kernels and other impurities, the yarn obtained was around 1½ ceers. It was indeed not so much a rise or fall in the price of cotton that led to fluctuations in the price of the textiles as did the wages of the spinners. *Kapas* costing $\frac{2}{3}$ to $\frac{3}{4}$ paisas cost as much as 4 paisas to have it spun.

Ross's report contains a fair amount of information on the process of the weaving of many varieties of cotton, cotton and silk mixed, as well as silk textiles, manufactured in the aurungs of Haripal, Dhaniakhali and Chandrakona in the year 1767. The survey was carried out in these aurungs because being under direct English control, the collection of information was that much easier. In the first place, the information pertains to variables such as the number of weavers, the number of looms and the number of houses (grouped in three categories of first, second and third qualities) from which the weaver households operated. This information is available in respect of each of the hamlets and villages covered by each of the sub-aurungs of the aung to which the information pertains. This information in respect of the aurungs of Haripal and Dhaniakhali is summarized in Table I.

Table I Textiles manufactured in the aurungs of Haripal and Dhaniakhali, 1767

1.	Name of the aurung – Haripal Name of sub-aurung				
a.	<u>Teinagar</u>				
	Number of producing villages	Varieties manufactured	Number of houses (I, II, III quality)	Number of weavers	Number of looms
	20	White textiles	366 (148,107,111)	681	412
	10	Silk and coloured textiles	72 (35,23,14)	153	91
Total	30		438 (183,130,115)	834	503
b.	<u>Koikalla</u>				
	7	White textiles	126 (32,41,53)	279	154
	3	Silk and coloured textiles	11 (9,2,0)	25	14
Total	10		137 (41,43,53)	304	168
c.	<u>Haripal</u>				
	8	White textiles	286 (79,113,94)	609	334
d.	<u>Mora</u>				
	3	White textiles	61 (29,20,12)	154	72
e.	<u>Koliema</u>				
	6	White textiles	58 (31,16,11)	160	79
f.	<u>Duarhatta</u>				
	11	White textiles	328 (154,87,87)	784	395
	2	Silk and coloured textiles	17 (7,0,10)	32	24
Total	13		345 (161,87,97)	816	419
g.	<u>Aadhpur</u>				
	7	White textiles	107 (39,35,33)	241	125
h.	<u>Raasbolhaad</u>				

	10	White textiles	374 (73,144,157)	810	423
	Total for the aurung of Haripal (sub-aurungs=8)				
	Number of producing villages				
	72	White textiles	1,706 (585,563,558)	3,718	1,994
	15	Silk and coloured textiles	100 (51,25,24)	210	129
Total	87		1,806 (636,588,582)	3,928	2,123
2.	Name of the aurung: Dhaniakhali				
	Name of sub-aurung				
a.	<u>Dhaniakhali</u>				
	Number of producing villages	Varieties manufactured	Number of houses (I, II, III quality)	Number of weavers	Number of looms
	24	Silk and coloured textiles	355 (63,68,224)	587	429
b.	<u>Goerap</u>				
	2	Silk, coloured and sanus	78 (0,34,44)	157	96
c.	<u>Khanpur</u>				
	51	Silk, coloured and sanus	506 (33,191,282)	910	575
	Total for the aurung of Dhaniakali (sub-aurungs=3)				
	Number of producing villages				
	77	Silk, coloured and sanus	939 (96,293,550)	1654	1100
	Grand total for the aurungs of Haripal and Dhaniakhali (sub-aurungs=11)				
	Number of producing villages				

	72	White textiles	1,706 (585,563,558)	3,718	1,994
	15	Silk and coloured textiles	100 (51,25,24)	210	129
	77	Silk, coloured and Sanus	939 (96,293,550)	1,654	1,100
Total	164		2,745 (732,881,1,132)	5,582	3,223

According to Table 1, the two aurungs of Haripal and Dhaniakhali had between themselves as many as 164 weaving villages containing 2,745 weaver houses of which around a quarter (26.66%) were first quality, about a third (32.09%) second quality and the remaining 41.23% of third quality. Of the total of 164 villages covered by the two aurungs, while 87 fell in the 8 sub-aurungs of the Haripal aurung, the Dhaniakhali aurung contained the remaining 77 villages spread over three sub-aurungs. While 72 of the 87 villages of Haripal aurung specialized in the production of white (cotton) textiles, the remaining 15 produced silk and coloured textiles. All 77 villages of the Dhaniakhali aurung specialized in the production of silk and coloured textiles, the only exception being sanus, a cotton calico piece-good.

According to the table, the total number of looms in the two aurungs was found to have been 3,223 not taking into account broken and otherwise unusable ones. On the assumption of four weavers (one master-weaver assisted by three assistants) per loom, the number of weavers ought to have been 12,892. The survey, however, listed only 5,582 weavers suggesting a short fall of as many as 7,310 weavers. Ross attributed this immense discrepancy essentially to three factors. The first was the frequent disturbances the area had suffered from over the preceding few years. The second factor mentioned by Ross was the exceedingly “violent” and “self-centred” procurement procedures followed by the English Company obliging a large number of weavers to turn to farming and other occupations. A

contributing circumstance was the large scale “recruitment by the English Company of soldiers and coolies for their army as also of labour to carry out large scale construction activity in Calcutta”. Thirdly “unlike in an aurung such as Chandrakona where practically all farmers and artisans including smiths were also weavers”, weaving in the Haripal and Dhaniakhali aurungs was a full-time activity.

Table II Breakdown of the cost of specific varieties of Bengal textiles manufactured in the aurungs of Haripal and Dhaniakhali, 1767

SNo.	Variety	Size	Cost of yarn for the warp per piece (in sicca rupees: annas)	Cost of yarn for the weft per piece (in sicca rupees: annas)	Total cost of yarn (in sicca rupees: annas)	Percentage of total cost accounted for by yarn	Weaver's wages per piece (in sicca rupees: annas)	Percentage of total cost accounted for by the weaver's wages	Total cost per piece (in sicca rupees: annas)
1.	Dhaka doria containing 1,700 threads	length 40 covids, width 2¼ covids	6:6 of which 3:12 for 48 units for the ground costing 5 paisa per unit and 2:10 for 84 units for the stripes costing 2 paisa per unit	4:11 for 48 units costing 6¼ paisa per unit	11:1	73.75	3:15	26.25	15:00
2.	Kammagora doria containing 1,300 threads	length 40 covids, width 2¼ covids	5:4¾ of which 3:0¾ for 30 units for the ground costing 6½ paisas per unit and 2:4 for 36 units for the stripes costing 4 paisa per unit	5:4 for 36 units costing 9⅓ paisa per unit	10:8¾	75.33	3:7¼	24.66	14.00
3.	Kammagora doria containing	length 40 covids,	4:13 of which 2:13 for 30	4:8 for 32 units costing	9:5	74.5	3:3	25.5	12:8

threads	width $2\frac{1}{4}$ covids	units for the ground costing 6 paisa per unit and 2:0 for 32 units for the stripes costing 4 paisa per unit	9 paisa per unit					
4.	Sangora doria containing 1,100 threads	length 40 covids, width $2\frac{1}{4}$ covids	4:4 of which 2:4 for 42 units for the ground costing $3\frac{1}{7}$ paisa per unit and 2:0 for 48 units for the stripes costing $2\frac{2}{3}$ paisa per unit	3:12 for 48 units costing 5 paisa per unit	8:0	72.72	3:0	27.27	11:0
5.	Terrindam containing 1,100 threads	length 40 covids, width $2\frac{1}{4}$ covids	4:8 for 48 units costing 6 paisa per unit	6:4 for 30 units costing 8 paisa per unit	10:12	76.78	3:4	23.21	14:0
6.	Terrindam containing 1,100 threads	length 40 covids, width $2\frac{1}{4}$ covids	3:12 $\frac{3}{4}$ for 54 units costing 4 paisa per unit	4:4 $\frac{1}{4}$ for 42 units costing 6 $\frac{1}{2}$ paisa per unit	8:1	73.29	2:15	26.70	11:0
7.	<u>Neusdoek</u> (rumal) containing 1,300 threads	length 35 covids, width $1\frac{3}{4}$ covids	3:10 of which 2:10 for 42 units for the ground costing 4 paisa per unit and 1:0 for 16 units for the	3:4 $\frac{1}{2}$ for 42 units costing 5 paisa per unit	6:14 $\frac{1}{2}$	76.73	2:1 $\frac{1}{2}$	23.26	9:0

			stripes costing 4 paisa per unit						
8.	Fine sirsick containing 1,800 threads (mixed silk and cotton)	length 30 covids, width 2 covids	4:1¼ of which 1:6½ for 30 units for the ground costing 3 paisa per unit and 2:10¾ for 24 units of silk for the stripes costing 7 ⅙ paisa per unit	4:3½ for 54 units costing 5 paisa per unit	8:4¾ +0:8¼ for the colour for the silk=8:13	67.78	4:3	32.21	13:0
9.	Fine karraderry containing 1,600 threads (mixed silk and cotton)	length 30 covids width 2 covids	3:12 of which 1:15½ for 42 units for the ground costing 3 paisa per unit and 1:12½ for 16 units of silk for the stripes costing 71/9 paisa per unit	4:11 for 60 units costing 5 paisa per unit	8:7	70.31	3:9	29.68	12:0

Notes:

1. The sicca rupee was subdivided into 16 annas=64 paisa=64 loads of cauris
2. The total cost per piece as shown in the last column equals the price on the basis of which the paikars of the Dutch East India Company put out the contracts to the weavers. These prices were net prices and did not include the charges payable to the washermen, the rafugars employed to repair the muslins that might get damaged during bleaching, the brokerage of the dalals, the tolls payable at the aurungs, the cost of dressing and the cost of transport etc.

Table II provides a breakdown of the cost of manufacturing different varieties of cotton and cotton and silk mixed textiles between the cost of the yarn used and the wages bill of the weavers. This information is available for three varieties of cotton textiles and two varieties of cotton and silk mixed textiles. The cotton textiles include four kinds of *dorias* (a fine quality calico) of the standard size of 40 coid length and $2\frac{1}{4}$ coid width (the coid was an indigenous measure equalling half a yard) containing 1,100 to 1,700 threads, two kinds of *terrindams* (a fine quality muslin), again of the standard size of 40 coid length and $2\frac{1}{4}$ coid width and containing 1,100 threads, and *rumals* (a fine quality calico) of 35 coid length and $1\frac{3}{4}$ coid width containing 1,300 threads. The cotton and silk mixed varieties are *sirsick* of 30 coid length and 2 coid width containing 1,800 threads and *karraderry* of the same size and containing 1,600 threads.

What the table establishes quite explicitly is that cotton yarn of different qualities went into different varieties of the same textile. Thus while the yarn that went into the warp of the Dhaka *doria* cost 5 paisa per unit for the ground and 2 paisa per unit for the stripe, the corresponding figures for the yarn used for the Kammagora *doria* were $6\frac{1}{2}$ paisa per unit and 4 paisa per unit respectively. The difference was even greater in the quality and price of the yarn used for the weft in these two varieties of *dorias*. While the yarn used for the Dhaka variety cost $6\frac{1}{4}$ paisa, the one used for the Kammagora variety cost as much as $9\frac{1}{3}$ paisa per unit. The same was true of the *terrindams* even though both the varieties had the same number of threads.

The relative share of the cost of the yarn and of the weaver's wages bill in the total cost, however, did not differ very much across the different varieties of textiles. The share of the wages bill thus fluctuated roughly

between a quarter and one-third of the total cost, being generally higher in the case of mixed cotton and silk textiles than in that of cotton textiles.

As for the factors contributing to fluctuations in the price of cotton yarn, in addition to the obvious one of fluctuations in the size of the crop, Ross drew attention to two other circumstances. One was fluctuations in the numbers of women spinners available at a point in time depending on what other employment opportunities happened to be currently available. By far the most important circumstance governing the price of yarn, however, was the volume and value of the contracts being put out at that point in time by buyers other than the English Company. In respect of each variety of yarn, the English Company fixed the price at which the weavers working for it had to be provided with the yarn, obliging the yarn producers to make up for their losses by increasing the price charged to the weavers of the other buyers to the maximum extent possible.

A broadly similar situation prevailed in respect of the wage rate of the weavers. The current high rate was attributable in the first place to the large quantity of the contracts being put out. But the more important factor at work was that the weavers working for the English essentially got practically nothing by way of wages with the result that in order to earn their minimum subsistence, they were obliged to ask the Dutch and others competing for their services but not in a position to dictate terms to them to pay a correspondingly higher wage rate. In the words of Johannes Martinus Ross, "We are thus obliged to pay for the English not only in respect of the weavers' wages but also the cost of the yarn, in addition to the aurung tolls etc. that the English charge us".

Table III Time taken to weave one piece of textile per loom at the Haripal and Dhaniakhali aurungs, 1767

Variety	Size (only length is indicated)	Superfine quality	Fine quality	Ordinary quality
Dorias (cotton calico)	40 covids		7-8 days (4 pieces per month)	5-6 days (5½ pieces per month)
Malmals (cotton muslin)	“		“	“
<u>Terrindam</u> (cotton muslin)	“		“	“
<u>Neusdoek</u> (rumals) (cotton calico)	40 covids for fine and 32½ covids for ordinary		“	“
<u>Sirsick</u> (mixed silk and cotton)	24 covids	7-8 days (4 pieces per month)	5-6 days (5½ pieces per month)	4 days (7½ pieces per month)
<u>Karraderrie</u> (mixed, silk and cotton)	20 covids	“	“	“
<u>Rumals</u> <u>Sichtermans</u> (cotton calico)	35 covids		“	
Ordinary varieties				“

Note: This assumes steady employment of a loom employing a master weaver and three assistants together with female and child helpers whose number is not specified.

Table III conveys a broad idea of the average monthly output per loom for different varieties of textiles in both the cotton textiles as well as the cotton and silk mixed textiles categories. The table assumes steady employment of the loom employing one master weaver together with three

assistants further assisted by an unspecified amount of female and child labour in the family. As for the size of the pieces produced, unfortunately only the length is indicated which by and large conformed to the standard length of the pieces manufactured. As one would expect, the output was inversely related to quality (thus $5\frac{1}{2}$ pieces of ordinary quality dorias being manufactured in a month as against 4 pieces of fine quality). An un-weighted average across cotton as well as cotton and silk mixed varieties of all qualities of the standard size suggests a figure of $5\frac{2}{3}$ pieces per loom per month giving an annual average of 68 pieces. But considering that, on an average, across each variety, a substantially larger number of ordinary quality textiles than fine or superfine quality textiles were manufactured, Ross put the average figure at 6 per month or 72 per annum. A further adjustment of this figure was necessitated, Ross pointed out, by the fact that sickness and a multiplicity of festivals often kept the weavers away from the looms. An average figure of 60 pieces per annum was, therefore, more realistic. On that basis, the figure of 3,223 looms specified in Table I would have yielded an annual output of 193,380 pieces across all varieties of textiles put together. But considering that the number of weavers and their assistants was no higher than a total of 5,582, the number of looms that could be put to use on the assumption of 4 persons to a loom would have been no higher than $1395\frac{1}{2}$ yielding a total of 83,730 pieces. Finally, Ross pointed out, that if one went by the considered opinion of the knowledgeable persons in the area, the number of weavers and assistants could safely be put at 7,200 providing employment to 1,800 looms. On this basis, the average annual output in the two aurungs could be assumed to be around 108,000 pieces across all varieties of textiles.

Another group of aurungs in the area for which quantitative information regarding the number of looms at work is available was that of

Chandrakona and other aurungs in the vicinity. This information is summarized in Table IV.

Table IV Number of looms at work in the aurungs of Chandrakona etc., 1767

Name of aurung	Number of looms reserved for the English	Effective number of looms available	Number of looms reportedly hidden
Chandrakona	903	896	200
Narrasjoul	231	300	50
Khirpai	350	350	50
Radhanagar	253	250	50
Ghatal	60	100	25
Udinaspur	50	50	10
Hajipur	50	60	10
Kolmisoor	0	15	0
Total	1,897	2,021	395

This group of aurungs lay to the south of those at Haripal and Dhaniakhali. While the Dutch carried out their procurement mainly at Chandrakona, the English trading station in the area was located at Khirpai. Similarly, the counterpart of the Dutch procurement station at Narrasjoul was the village of Sammraat. All these centres including Haripal and Dhaniakhali were under the jurisdiction of Bardwan. Khirpai was part of the *jagir* of the Jagatseth family. Under the rubric of textile producing centres in this region, one could add Kasisjora which was under a minor raja. Legend has it that this centre was a major producer of textiles before bad management had drawn the producers to areas such as Chanderkona under the jurisdiction of Bardwan. At one point as many as 500 weavers used to operate there producing mainly for domestic consumption. Some of these weavers continued to operate there and transported their output clandestinely to the markets of Narrasjoul,

Chandrakona and Khirpai. No gumashta or dalal operated from that centre any more.

The aurung of Narrasjoul where the Dutch bought their textiles was adjacent to Kasisjora while the English procurement centre of Summraat was next to the border of Bardwan. There were seven weaver villages in the neighbourhood accounting for around 300 looms. In addition to the local output, these two centres received a substantial amount of textiles from neighbouring areas. The jagatseth family got its textiles manufactured in the area through special gumashtas. The bulk of the remaining output was acquired by the English leaving very little for the Dutch and the others.

In addition to manufacturing textiles for the Companies, this region also had about 500 looms catering exclusively to the markets of Mocha, Basra and Jidda in respect of textiles of varying length, width and prices. Each loom produced on an average, 4 pieces per month. So in principle the number of pieces supplied to these markets could be 24,000 per annum but the actual number was smaller because many of the weavers did not work full-time.

Coming next to the aurung of Chandrakona, Ross reported that the villages and hamlets under this aurung amounted to 47 accounting for about 1,100 looms producing cotton textiles and 200 looms producing silk textiles. About 3 miles northward was Khirpai with 350 to 400 weavers. The nine paikars operating at Khirpai had many weavers also working for them at Radhanagar, Udairajpur, Duanghons, Kajipur etc. with 27 weavers even in Chandrakona. Radhanagar was about an hour's distance in the south-southeast of Khirpai. It had about a 1,000 looms and had traditionally been a major procurement centre for silk and mixed textiles produced in this entire region. It also had about 100 looms producing cotton textiles. It was well-known that the only major item procured by the

Europeans in Radhanagar was soosies, a high quality silk textile. Other varieties produced there were mainly for sale in Surat, Mocha and Jidda etc. According to Ross's calculations, there were about 5,000 looms in Radhanagar producing silk and mixed textiles. At an average of 4 pieces per month, this would involve an annual output of 240,000 pieces worth around 15 lakhs of rupees at an average price of 6¼ rupees per piece.

The English East India Company had declared raw silk produced in Bardwan, Medinipur and Kasisjora as a monopsony item. It bought raw silk from the farmers at 16 tolas per rupee and sold it to the weavers at 7 to 9 tolas per rupee. The large scale production of silk textiles had cut into the number of cotton textiles available to buyers who could not practice violence on the producers the way the English Company could.

IV

While all the European corporate enterprises – the Dutch, the English and the French – operated in the textile aurungs discussed above, by virtue of the political power enjoyed by it, the English East India Company (and by extension, the private English traders enjoying its protection) was in a category by itself. Before we go into the details of the manner in which the English grossly misused their position of authority and coerced the intermediary merchants and the weavers into working for them at terms substantially below the market, let us look at some quantitative data regarding English Company procurement available for the aurungs of Chandrakona, Khirpai and Radhanagar etc. Table V sets out the details of the contracts put out by the English Company at the aurungs of Chandrakona and Radhanagar etc. in the year 1767.

Table V Textiles contracted for by the English East India Company together with their prices at the aurungs of Chandrakona, Khirpai and Radhanagar etc., in 1767

a.	<u>Malmals</u> (fine cotton muslin)					
	Quantity (number of pieces)	Quality	Size (length & width in covids)	Last year's price per piece (in sicca rupees)	Current year's price per piece (in sicca rupees)	Value of current year's contracts (in sicca rupees)
	300	fine	40,3	21	24	7,250
	1,000	"	40,2¼	16	18	18,000
	4,000	"	40,2	12	14	56,000
	750	"	40,2	13	15	11,250
	7,000	ordinary	40,2	8½	11	77,000
	1,600	superfine	40,2	16¼	18	28,800
	800	Rasballabhpuri a	40,2	13	15	12,000
Total	15,450					210,300
b.	<u>Dorias</u> (fine cotton calico)					
	3,000	fine broad stripes	40,2	12	14	42,000
	300	fine embroidered broad stripes	40,2	13	15	4,500
	1,000	small chequered	40,2	16	17	17,000
	2,000	big chequered	40,2	12	14	28,000
	3,000	ordinary	40,2	8½	11	33,000
Total	9,300					124,500
c.	<u>Dassies</u> (coarse cotton calico)					
	250	small	40,1¼	11	13	3,250
Total	250					3,250
d.	<u>Soosies</u> (fine quality silk textile)					
	1,850	diverse	40,2	8	10	18,500

	1,850	“	50,15/8	8	10	18,500
Total	3,700					37,000
Grand Total	28,700 pieces					375,050

According to Table V, the total number of pieces contracted for by the Company at the aurungs of Chandrakona, Khirpai and Radhanagar etc. in 1767 amounted to 28,700 pieces consisting of 15,450 pieces of *malmals*, 9,300 pieces of *dorias*, 250 pieces of *dassies* and 3,700 pieces of *soosies*. The *malmals* contracted for included 300 pieces of the usual length of 40 covids but a highly unusually large width of 3 covids. The prices for 1767 were, on an average, higher by 16 percent than the ones for 1766. These prices were the net prices payable to the weavers and did not include the payment for the services of the washermen etc. It was stipulated in the contract that the prices indicated were in each case in respect of the first quality. Once the goods had been supplied they would be subject to be sorted into five qualities, each lower quality being evaluated at 6¼ percent lower than the price of the quality immediately above it. Thus in the case of the wide muslins, against the price of Rs.24 for the first quality, the price paid would be 22:8 annas for the second, Rs.21 for the third, Rs.19:8 annas for the fourth, and Rs.18 per piece for the fifth quality respectively. Pieces not found good enough to qualify even for the fifth quality would be designated as ‘firty’ (ferretted) and would be priced at the discretion of the Company. The contracts were distributed over a total of 41 paikars, the details regarding whom are summarized in Table VI.

Table VI Distribution of English East India Company contracts at Chandrakona etc. among different paikars, 1767

a. At the aurung of Chandrakona (26 paikars)			
Name of paikar	Number of pieces per month contracted for in 1766	Number of looms assigned to each Paikar in 1766	Number of looms assigned to each paikar in 1767
Kamdev Thakur	66	49	48
Raghudev Thakur	15	19	16
Janki Thakur	27	22	21
Gangaram Thakur	27	27	24
Hari Ghosal	21	18	18
Udit Thakur	18	19	19
Sadhu Kar	90	77	70
Jugal Poddar	75	57	60
Kaliram Hai	51	38	38
Gaurang Dutt	45	41	41
Govardhan Sarkar	45	40	40
Raghu Sarkar	24	25	27
Bhagirath Das	24	19	29
Motiram Poddar	24	21	21
Ukmitjan Teli	30	20	22
Trilok Chaudhuri	45	28	30
Titu Sarkar	54	49	50
Trilok Sarkar	27	18	23
Lokicharan Chaudhuri	27	22	20
Jagannath Das	40	35	35
Sani Sarkar	30	29	29
Hit Kar	18	15	15
Ganesh Poddar	18	10	12
Jagannath Bairagi	15	70	12
Jugal Bari	17	8	9
Bairagidas Korn	27	26	26
Total	900	739	755
b. At the aurung of Khirpai (9 paikars)			
Sarveshwar Pahari	225	180	205
Kirparam Teli	90	72	70

Panju Datt	30	24	40
Sitaram Pal	30	24	25
Sunder Mahi	90	72	70
Manik Mondal	60	48	46
Baburam Poddar	60	48	50
Kashi Pal	30	24	25
Gokul Das	52½	42	40
Total	667½	534	571
c. At the aurung of Radhanagar (2 paikars)			
Jugal Chaudhuri	60	48	46
Motiram Dutt	30	22	25
Total	90	70	71
d. At the aurung of Ghatal (1 paikar)			
Dukhiram Doba	100	80	60
e. At the aurung of Udairajpur (1 paikar)			
Sarbjot Thakur	28	23	23
f. At the aurung of Ramjibanpur and Hajipur (1 paikar)			
Hiranand Chaudhuri	60	48	50
g. At the aurung of Sammraat (1 sarkar or gumashta being an employee of the English Company)			
(Name not given)	150	150	231
Grand Total	1,995½	1,644	1,761
For the current year (1767), the figure is 2,6193/32 pieces per month (or 31,429⅞ pieces per annum) representing an increase, on an average, of little over 31 percent			

According to Table VI, the number of pieces contracted for in the aurungs (or sub-aurungs) of Chandrakona, Khirpai, Radhanagar, Ghatal, Udairajpur, Ramjibanpur and Sammraat for the year 1766 was 23,946 (or 1,995½ per month) and for 1767, 31,429 pieces (or 2,6193/32 pieces per month). The number of looms assigned for the purpose in 1766 was 1,644 as against 1,761 in 1767. What is very striking is the fact that these numbers suggest an obligation of providing, on an average, only 1.21 pieces per month per loom in 1766 and 1.48 pieces per month per loom in 1767. This is way below the average output of 5 pieces per month per

loom suggested by Tables I and III above. Did this imply a tacit understanding between the Company and its *paikars* that in return for their overall cooperation in the matter of the supply of the Company's textile requirements, they would be allotted a loom capacity substantially in excess of that needed for meeting the Company's requirements. This excess capacity could then be diverted to meet the textile requirements of other buyers and markets substantially enhancing the overall business and the profit margin of these *paikars*. In the absence of firm information, however, this must remain only a speculative hypothesis.

What the table also suggests is a considerable variation in the number of pieces/looms allotted to individual *paikars* both across *aurungs* as well as within an *aurung*. Thus while in the *aurung* of Chandrakona, a total of 900 pieces per month was allotted to 26 *paikars* giving an average of 34.61 pieces per *paikar*, the corresponding numbers in the *aurung* of Khirpai were 667 pieces to only 9 *paikars* giving an average of as many as 74.11 pieces or more than twice the average of Chandrakona. There were also considerable variations across individuals. The person to whom the biggest contract (225 pieces per month and 205 looms) was awarded was one Sarveshwar Pahari at Khirpai. The smallest contract was for 17 pieces with 9 looms at Chandrakona. The number of looms assigned to individuals registered very little change between 1766 and 1767 except in a case such as that of Panju Datt in Khirpai where against 24 looms assigned in 1766, the number was increased to 40 in 1767. It is not entirely clear why the contract at the *aurung* of Summraat was given to a *sarkar* (or *gumashta*) of the Company rather than to a *paikar* with a substantially enhanced number of looms being assigned to him. Finally, an analysis of the names of the *paikars* to whom the contracts were given shows that all of them were Hindus, mostly ethnic Bengalis but also including the names of some Marwaris who had migrated from Rajasthan

at some point. These persons, carrying the last name of Poddar, figured in the list of paikars for both Chandrakona and Khirpai. As we noted earlier, Khirpai was part of the jagir of the Jagatseth family, also a Marwari immigrant to Bengal.

The English East India Company's procurement of textiles in the aforementioned aurungs was coordinated by John Bitter, the Company's Commercial Resident at Khirpai. The first thing that he ordered after arriving at the Residency was a survey of the weavers and the looms available in the area and the number of pieces of textiles manufactured, on an average, in a year. He also ordered an estimate of the number of pieces contracted for and received last year by the Dutch and the French East India Companies, the English, Dutch and French private traders as well as the Indian traders. Finally, he wanted an estimate of the contracts already put out by each of these entities during the current year and the funds already invested. He next ordered all the paikars supplying the English Company to appear before him to explain why the quality of the pieces delivered the previous year had been not as good as of those supplied to the Dutch Company. The suppliers simply pointed out that the Dutch paid a 25% higher price. They also pointed out that it would be impossible to supply the same number of pieces (namely 21,590) as last year. The total output in the area was no higher than 42,500 pieces per annum and Bitter could expect to procure a large part of it only if he ordered the rival companies, their private traders as well as the Indian traders to leave the area. The 41 paikars listed in Table VI were then held in detention and asked to provide the quantity listed against each in the table. Against the total requirement of 25,000 pieces (Table V not counting the 3,700 pieces of *soosies*), the paikars were obliged to provide a total of 31,429 pieces, the excess of 6,429 pieces being reserved for the poor-quality 'firty' pieces. Each paikar was ordered to sign a paper agreeing to

supply the number of pieces recorded against his name. On refusal, each was administered ten canes on his naked skin and put in jail. They were told that if they did not sign the paper, Bitter knew of other ways to deal with them. Ross was shocked at this kind of treatment being meted out to paikars of stature, many of whom possessed assets worth Rs. one lakh or more. After the lapse of a few days, these people came round and signed the papers. Before leaving for Sonamukhi, Bitter appointed Motiram Mohan Basak, the brother of head gumashta Radha Mohan Basak, as the first gumashta of the aurung and instructed him to ensure that each of the paikars scrupulously kept to the supply schedule agreed to by him. Ross described this man as “a rogue and a scoundrel”. He treated the paikars with extreme harshness and had even whipped a paikar to death. Ross detailed two other instances of Basak’s behaviour towards the paikars. When a paikar brought his three pieces of textiles which he was obliged to deliver daily to Basak, while two of the pieces were found to be of passable quality, the third was found to be short of its supposed width of 2¼ covids. The punishment inflicted on him was to make him rub his nose on the ground several times for a distance of 2¼ covids. He was told that he was being let off with this minor punishment because this was his first offense. The piece was returned to him with the instruction that a replacement be provided the same day before sunset. The man was obliged to buy the replacement piece from another paikar at a price four rupees higher than what he was due to receive from the English Company.

The behaviour of the paikars towards the weavers was no better. In one instance, three weavers had reportedly brought to a paikar one piece each of a quality that the latter dared not deliver to the English head gumashta. The pieces were then tied around the necks of the weavers who were told to provide immediate replacements by buying them from others. They were escorted to their respective homes with the pieces tied

around their necks by peons whose costs also they were made to reimburse.

The terms and conditions the English East India Company imposed on its paikars were substantially below market. An idea of the extent of such exploitation would perhaps be conveyed by the fact that for a piece of cotton textile for which the Dutch East India Company would have offered Rs.16, the average price paid by the English East India Company was no higher than Rs.12 or 75 percent of the Dutch price. According to Ross, this proportion would have held across the board. The terms of supply and evaluation were equally harsh. The pieces received from the paikars were subjected to an initial sorting from quality one to five and sent to the washermen, engaged by the Company's gumashta, for bleaching. They were then subjected to a second sorting before being sent on to the *rafugars* (the artisans engaged to repair any damage caused in the process of bleaching). The pieces were then subjected to yet another bleach before being sorted a third time. At this point, the pieces were sent on to Khirpai, chief factory of the region where the fourth round of sorting was carried out. The fifth and final round of sorting was reserved for Calcutta. As mentioned earlier, ordinarily the price paid for each descending quality on a scale of 1 to 5 was 6¼ percent lower than that for the immediately preceding one. Pieces not found good enough to make even quality five were rejected as 'firty' (ferretted).

A rough idea of what the Company subjected the paikars and the weavers to can be formed by the fact that pieces classified as third quality would gladly have been accepted by the Dutch Company as first quality at a considerably higher price. It is remarkable that even the pieces rejected by the Company as 'firty' had a profitable market. This margin was shared clandestinely between the Commercial Resident, the chief gumashta, and the paikars. To take an example from 1767, Resident John Bitter rejected

896 pieces of textiles as 'firty' that year. Many of these pieces were eventually sold by the paikars in the open market at between Rs.6½ and Rs.7 per piece higher than the price at which they had been evaluated by Company's factors before being rejected. Bitter had returned the pieces to the paikars after keeping a margin of Rs.3 per piece for himself and Rs.½ per piece for the chief gumashta Radhamohan Basak. But even after paying Rs.3½ extra, the paikars managed to earn a net profit of Rs.3 to Rs.3½ per piece in the market for themselves.

The suppliers of textiles at Khirpai estimated that the maximum that the group of aurungs, under this English trading station could supply in the course of a year was around 50,000 pieces. The contracts put out by the English Company in 1767 amounted to 31,429 pieces (Table VI). The Dutch East India Company's contract for the years were estimated at 8,100 pieces and of the French Company at 2,000 pieces, making a total of 41,529 pieces. That left a total of 8,471 pieces for all the private European traders, the Armenians as well as the Indian merchants put together. The English Company was likely to get the number of pieces that it had given out contracts for. The next group with political muscle was that of the private English traders enjoying the protection of the Company. As pointed out earlier, the cause of this group was further helped by the fact that they were quite indifferent to the quality of the pieces received as well as the cost of those pieces as long as they were able to earn a return of 9 percent per annum on their investment. These traders, whose number was estimated at 37, were reported to have brought in as much as Rs.355,000 for investment in textiles in the area. This represented only half of the total of Rs.700,000 worth of textiles that they aimed to procure during the year. At an average cost of Rs.12 per piece, this would amount to a whopping 59,000 pieces. According to Ross's calculations, for a piece for which the English Company would pay

Rs.10 and the Dutch East India Company Rs.12:7 annas, the private English traders would be willing to pay as much as Rs.14. it was, therefore, not surprising that these traders were the most preferred buyers for any clandestine supplies available with the paikars.

The supplies left for the Dutch and the French East India Companies and others including the Indian traders were, therefore, quite meagre. Indeed, Ross suspected that the best that they were likely to be able to do was to get between one-eighth and one-fourth of the total that they had intended to buy and in fact had given out contracts for during the year. In view of this situation, the paikars dealing with the intermediary merchants who had accepted the Dutch contracts indeed offered to return the money taken in advance because they believed that the weavers could still be persuaded to return the advances given to them. Given the way the English were dealing with the paikars and the weavers, the latter were likely to be ruined. They claimed that on the pieces prepared for the English, not only did they get no recompense for their efforts, but in fact lost one to two rupees on the cost of the yarn that went into each piece. A delegation of weavers proceeded to Calcutta with a petition (*arzi*) requesting that the prices offered to them be increased by at least so much as to meet their costs and afford them a subsistence wage. They did manage to obtain an order directing John Bitter to do the needful. But this evidently was no more than an eyewash because Bitter not only openly disregarded the order but indeed threatened to have the weavers arrested in the event that they continued with their efforts. The phenomenon of the weavers running away from their looms and villages was, therefore, increasingly becoming a grim reality. According to a letter from Ross at Khirpai to his superiors at Hugli written on 18 July 1767, 26 weavers had fled from their looms over the preceding eight days while the flight of another 23 was imminent. When the administrator of the Jagatseth's *jagir*

in the area sought the banker's intervention in the matter, the latter pleaded total inability to do anything about the English oppression.

To conclude, the English conquest of Bengal in the second half of the eighteenth century was clearly a circumstance of great import from the point of view of the textile industry of the province. The replacement of a market-determined system of production and procurement by a coercion-based one dealt a heavy blow to the fortunes of the industry. The artisans and the intermediary merchants associated with the industry no longer received their due in the value of the total output of the industry. That, in turn, would without any doubt have involved a certain amount of distortion in the incentive structure in the sector with adverse consequences for total output. It is, however, critically important to distinguish between the impact of the change in the system of production and procurement on output as distinct from the question of the share of different groups in the value of that output. There can be no question that the artisanal and the intermediary merchant groups suffered a substantive shrinkage in their share while the English East India Company and the private English traders were distinctly better off. But when it came to actual output, while a certain amount of dislocation would almost certainly have taken place in the short run, the long-term implications were evidently not particularly harmful. The system by and large was resilient enough to continue to deliver as would be evident from the continued high and indeed growing levels of trade, both intra-Asian as well as inter-continental, across the board. The picture of a ruined textile industry in the region does not quite conform to the evidence available. It was only in the nineteenth century, particularly in the second half, that the impact of the British cotton textile industry was felt with its full force by the Indian handloom sector. But even for that period, the desirability of keeping an open mind on the precise turn

of events is strongly suggested by research done over the last few decades.