UNIT 34 THE DE-INDUSTRIALIZATION DEBATE

Structure

34.1 INTRODUCTION

One of the key issues taken up by the nineteenth century nationalist intelligentsia was the question of de-industrialization of India in the colonial period. The British cotton textile industry was blamed for the flood of British goods into India, which led to the decline of traditional artisanal production and the decline in the earnings and employment of spinners and weavers, specially the former. Nationalist leaders from Dadabhai Naoroji to Tilak to Mahatma Gandhi have emphasised the destructive consequences of the inflow of British manufactured goods into the country. According to the nationalists India was subordinated to the needs of the British economy, transformed into an importer of manufactured products and an exporter of agricultural commodities. While Britain was experiencing an Industrial Revolution India was reduced to an agricultural adjunct of the British economy. This decline in artisanal production was not compensated for by the growth of manufacturing in the modern sense. The miserable conditions of the weavers, the greater dependence on agriculture and decline in living standards of the general population, and the greater incidence of famines in India in the 19th century were attributed to the inflow of British manufactured goods into the country specially after 1813 when the charter of the East India Company was amended. With the development of the railways in India in the second half of the 19th century the process of the destruction of artisanal production was speeded up because of the availability of cheap transportation for bulk goods. If India had been an independent country it would have made an effort to protect its traditional industry but this was not feasible under colonial rule. The British colonial rulers followed a policy of free trade, which enabled the products of the Lancashire cotton industry to enter the Indian market without the payment of customs duties. The cumulative effect of these policies was to destroy traditional industry and to restrict the opportunities for the growth of modern large-scale industry in India.

Table 1

Working force distribution by industry, 1881-1931: INDIA, including Burma and Pakistan

Male Workers [Absolute numbers]	1881 [All India] Four States]	1881 [All Provinces and	1901	1911	1921	1931
Working Force	80,675	71,330	93,607	97,333	95,734	100,179
Agriculture, Forestry and Fishing	52,029	46,944	64,148	70,244	69,646	72,197
General Labour	7,248	5,663	5,397	2,689	2,894	3,753
Manufacture, Mining and Construction	12,959	7,686	9,924	9,589	8,926	9,111
Trade	1,870	3,813	5,044	5,430	5,505	5,659
Transport and Other Services	6,569	7,224	9,094	9,383	8,763	9,459

Source: Daniel Thorner, ' "De-industrialization" in India: 1881-1931,' in *Land and Labour in India* based on the *Census of India Reports* from 1881 to 1931. pp. 78-79

Table 2

Working force distribution by industry, 1881-1931: INDIA, including Burma and Pakistan

Male Workers [in percentages.]	1881 [All India]	1881 [All Provinces and Four States]	1901	1911	1921	1931
Working Force	100	100	100	100	100	100
Agriculture, Forestry and Fishing	65	66	68	72	73	72
General Labour	9	8	6	3	3	4
Manufacture, Mining and Construction	16	11	11	10	9	9
Trade	2	5	5	5	6	6
Transport and Other Services	8	10	10	10	9	9

Source: Daniel Thorner, ' "De-industrialization" in India: 1881-1931,' in *Land and Labour in India* based on the *Census of India Reports* from 1881 to 1931, pp. 78-79

Table 3

Working force distribution by industry, 1881-1931: INDIA, including Burma and Pakistan

Female Workers [Absolute numbers]	1881 [All India]	1881 [All Provinces and Four States]	1901	1911	1921	1931
Working Force	34,446	n.a	41,913	45,683	43,844	40,020
Agriculture, Forestry and Fishing	19,642	n.a	28,442	33,357	32,570	28,027
General Labour	5,244	n.a	3,841	1,991	2,257	3,123
Manufacture, Mining and Construction	8,183	n.a	5,187	5,056	4,219	3,757
Trade	411	n.a	2,121	2,626	2,445	2,093
Transport and Other Services	967	n.a	2,321	2,654	2,353	3,020

Source: Daniel Thorner, ' "De-industrialization" in India: 1881-1931,' in *Land and Labour in India* based on the *Census of India Reports* from 1881 to 1931, pp. 80-81

In his rejoinder Bipan Chandra argued that the ratio of yarn imports to those of woven goods was very low. Between the years 1849 and 1889 the import of cloth increased by 25.5 millions sterling, which was a twelve and a half times increase while that of yarn increased by only 1.8 millions sterling, which was a four times increase. Besides the productivity of the British weaver was rising while that of the Indian weaver remained stationary. Furthermore, the export price of woven cotton goods from Britain was falling far more rapidly than that of yarn. The average export price per pound of yarn fell from 29 pence in 1819-21 to 15.3 pence in 1829-31 to 12 pence in 1844-46 to 11.7 pence in 1859-61 to 12.8 pence in 1880-82. During the corresponding period the average export price per pound of cloth fell from 70.3 pence to 40.6 pence to 22.5 pence to 20.5 pence to 19.4 pence. [Figures from Tables in Bipan Chandra, 'Re-interpretation of Nineteenth Century Indian Economic History', *IESHR*, 1968, pp 55-56.] Besides the spinners in any case suffered a decline in employment and income precisely because of the imports of the cheaper foreign yarn.

What is interesting is that though Bipan Chandra argued that the work of Thorner only showed that census data were " too unreliable to prove or disprove" the case for de-industrialization he also asserted that " the Indian weaver could hold his own to a limited extent only after 1918 as a result of technological change, i.e. mechanization." [Bipan Chandra, pp. 61 and 58.] Some of the recent work on the handloom industry develops this argument much further than the nationalists might like, but even they were willing to consider this point in 1968. Tapan Raychaudhuri is critical of Morris but he does acknowledge that the argument about the destruction of Indian handicrafts by British manufactured goods imported into India has a long history and pedigree. D.R. Gadgil in Industrial Evolution of India in Recent Times in 1924 first asserted that the village weaver remained largely untouched by European competition. He also referred to the complex factors that led to the decline in handicrafts. As for Raychaudhuri himself he prefers the viewpoint of Morris that there was no net decline in handicrafts. In his 1936 monograph, Urban Handicrafts of the Bombay Deccan, N. M. Joshi argued that there were different trajectories of the industries in the handicrafts sector, some declined, some evolved and underwent mutations while some new ones emerged using factory made tools. A standard economic textbook of the early 1950s by Jathar and Beri quoted statistics to show " the steady growth in the production of hand-woven textiles in the twentieth century." As far as Raychaudhuri is concerned the survival of handicrafts into the mid twentieth century is not in doubt. What he wanted to emphasize is the " stagnation of skills and hence of productivity in the secondary sector of production." [Tapan Raychaudhuri, "A Re-interpretation of Nineteenth Century Indian Economic History?", *IESHR*, pp. 93-94.] The main argument is that the potentialities for growth available to countries coming to industrialization late were frustrated because of the constraints produced by colonial rule.

34.4 DE-INDUSTRIALIZATION IN GANGETIC BIHAR

The evidence from the Census did not support an argument about de-industrialization but by comparing the evidence provided in the Buchanan-Hamilton survey between 1809-13 and the Census of 1901 A. K. Bagchi was able to conclude that the percentage of the population in Bihar dependent on secondary industries declined from 18.6% to 8.5%. [See Tables 5 and 6.] This evidence about the decline of artisanal production in Gangetic Bihar in the 19th century was a modern nationalist restatement of the de-industrialization of the country during colonial rule. The argument did not depend on the use of the census data in the manner that Thorner had debunked. However, Vicziany challenged this position of

it would be more appropriate to characterize such groups as part-time spinners. For Bagchi the fact that households were engaged in a multiplicity of economic activities was evidence of prior de-industrialization.

As Sumit Guha has pointed out the calculation of employment in the traditional artisanal sector will depend on the estimates of labour requirements of handspinning to a considerable extent. Bagchi has estimated secondary sector employment on the basis of a ratio of 20 spinners to one weaver in Gangetic Bihar in 1809-13. For his part Twomey follows Om Prakash in assuming that 2.5 spinners are required to supply one weaver with yarn. If Twomey had used Bagchi's ratio then he would have estimated the decline in employment during the period 1850 and 1880 at 23 million instead of 3.55 million FTJE (Full Time Job Equivalent). The term FTJE refers to the work done by a number of part-time spinners and weavers that would be equal to the work done by a spinner or weaver if he had been employed fulltime. If Bagchi had used Twomey's ratio in his revised calculation then the secondary sector employment would be a modest 12.9% of the population instead of 21% in 1809-13. The decline in employment from 12.9% to 10.5% in 1901 would not be a very significant decline. Sumit Guha for his part has estimated that it would require the output of six spinning FTJE to meet the needs of yarn for one weaving FTJE. As a consequence of this revised ratio of spinners to weavers the loss in employment in the handicraft sector should be estimated at about 7.7 million FTJE. Although Guha revises the estimates given by Twomey upwards he also argues that the ratios of 20 to 1 or even 15 to 1 assumed by Bagchi are very high and unrealistic.

Although Krishnamurthy broadly agrees that there was decline in the number of people engaged in industrial activities in the 19th century he has drawn attention to the specific aspects of this process. In a 1985 *IESHR* article he argued that Bagchi estimated the number of people engaged in artisan activity in 1809-13, other than in spinning, by multiplying the number of people reported as 'artisans' by an assumed family size. This procedure overstates the dependence on industry in the case of the artisan families. However, this procedure does not take into account the industrial activity of other artisan families of Gangetic Bihar. For most women spinning does not appear to have been a major source of livelihood. It would be closer to the truth to classify women workers in the data for 1809-13 as workers engaged in rice processing than in spinning. On the whole, however, there was a significant decline in the major industries like cotton and silk. By and large there was a shift towards producing coarse cloth, which required coarse handspun yarn. Patna, Gaya and Shahabad became important centres of coarse cloth, like *motia* or *gazi*, which was even sold in the North-West Provinces. Maldehi – a fabric produced by mixing cotton and silk was extensively produced in Bihar, as was tusar silk. Some of the minor industries were not badly affected. The carpet industry did reasonably well and the *Karga darris* of Patna flourished. The leather industry did suffer a decline because of the increase in the use of foreign-manufactured shoes but the use of Indian leather for making water buckets, bellows, oil and molasses jars survived. The position of the leather workers suffered a decline partly because of the export of hides and the gradual decline and disappearance of customary payments at harvest time. Common pottery too survived in the 19th century.

34.5 REGIONAL VARIATIONS IN THE PROCESS OF DE-INDUSTRIALIZATION

As a result of several detailed studies of the nature of traditional industries in the colonial period the discussion of de-industrialization has become more complex and nuanced.

century. In the case of western India the inflow of manufactured imports was delayed because of the poor development of transport facilities in the region. In 1881 in Rajasthan there were barely 400 miles of railways and manufactured imports could not reach the people living in the inaccessible areas until after World War I (1914-1918). By 1931 over 2900 miles of track had been laid and the local artisans began to face competition from manufactured imports. Not only did competition from manufactured imports come late in the case of Rajasthan the principal competition it faced also came from Indian mills rather than from imported textiles. The same structure of railway rates that favoured the movement of manufactured imports from the ports into the hinterland and of raw material from the interior to the ports also helped the Indian mills based in Bombay to transport their products cheaply to Rajasthan. It also enabled Rajasthan to move its raw cotton for sale to other parts of India at a lower cost.

34.5.1 De-industrialization in South India

In a study of handlooms in the Madras Presidency in the 19th century. Konrad Specker has argued that the volumes of Lancashire goods, which entered Madras in the 19th century, were less than in Bengal but in both regions there were changes in the composition of foreign trade marked by a growing share of agricultural exports. There were, however, some differences in the fortunes of handlooms in the two regions. In 1845 the Madras Board of Revenue concluded on the basis of an enquiry that the number of looms as well as of weavers had increased in most areas over the preceding 25-year period. In 1871 the Board of Revenue said that the number of looms had increased since the second half of the 1850's by about 20-25%. In examining the nature of the handloom sector one has to take into consideration the "massive yearly fluctuations" in the individual districts, which were the product of short periods of crisis. The short-term crises were produced by famines and epidemics, which led to the death, migration or impoverishment of weavers. The weavers were adversely affected both by the rise in the price of the yarn they used and a fall in their purchasing power and that of their consumers. When the harvests were better and agricultural conditions improved the number of looms would quickly go up. This indicated the extent to which the traditional textile sector was dependent on the fortunes of agricultural production and the consequent expansion and contraction of the domestic market.

When the commercial settlements of the East India Company were shut down a decline in textile exports from Madras Presidency set in on a significant scale in the 1830s. With the withdrawal of the East India Company investments there was a general shift towards the production of coarse variety of cloth instead of the finer cloths produced earlier. There was a significant decline in the production of fine. quality cloth and the number of looms increased precisely because more coarse cloth was being produced. The fall in the quality of English textile exports to India in the first half of the 19th century forced the traditional textile sector to produce greater quantities of coarse quality cloth than they might otherwise have done. In the northern districts of the Coromandel Coast, where Company demand earlier had stimulated the production of fine cloth, the closure of their establishments led to the stagnation or decline of looms. In the southern districts looms either stagnated or increased. Increased production of coarse varieties of cloth led to the relocation of the textile industry towards the southern part of the Presidency. By shifting into the coarser varieties of cloth and by producing items suited to local tastes and demand the traditional sector was able to withstand competition. The Madras Board of Revenue, which had estimated that there were 280,000 looms in 1870-71, concluded that there were 300,000 looms in the Presidency in 1889. [See Table 8]

Karnataka) weavers used both European and traditional yarn for their products. While the European yarn had the advantage of strength and purity the indigenous yarn was more suitable for dyeing. On the whole English yarn was preferred for the warp and Indian yarn for the weft.

Specker concludes that in quantitative terms there was no 'destruction' of the traditional textile industry. Despite local variations the number of looms tended to rise from 1820 to 1870. Despite a growing shift towards coarse cloth and problems of oversupply and 'socio-economic strain' several products were able to expand production based on their specific advantages like those produced by the weavers of Kornadu and of Guledgud. Unlike many other experts earlier who believed that the competitive position of the Indian weavers was strengthened by the use of the cheaper and superior imported yarn for Specker this was not very significant. Firstly, the cheaper machine-made imported yarn was available in significant quantities only after the shift to coarse cloth production in India had already taken place. Secondly, indigenous yarn of the coarsest and the finest qualities "proved to be more economic and/or superior in quality than imported yarn."

While Specker and C.J.Baker argued that the traditional handicraft production could not survive the competition from Lancashire imports in the 19th century and had to shift into the coarse cloth market the recent evidence for the 20th century points towards a relative increase in the share of the unorganized sector in the 1930s. One of the factors, which helped the handloom industry to expand its output, was the change in the traditional clothing habits of the people of Madras Presidency. The report of the 1942 Fact Finding Committee was that the competition between the Indian mills and the handloom weavers was most serious in the medium counts between 21s to 50s during the 1930s and 1940s. In the Tamil districts of the Madras Presidency handlooms survived competition by changing their products in four types of ways : (i) The weavers began to produce fine coloured cloths with high-count yarns or silk and less often with gold threads or *jari* for the upper end of the market. (ii) Artificial silk yarn was also used to weave coloured cloth for the less well-off consumers in India and abroad for use on ceremonial occasions. (iii) Coloured cloth was exported abroad and low count yarns were used to weave coarse cloth for the lower class consumers. (iv) In Madurai and Salem weavers survived by producing silk sarees, silk *angavastrams* or cotton ones with silk borders. Weavers engaged in the production of coarse cloth *duppattis* in the 1880s shifted by the 1930s into producing *angavastrams* of superior quality. In Tanjore, Kumbakonam (40 kilometer from Thanjavur), and Kornadu only silk weaving existed. Saurashtra Brahmins and Devanga Chettis in Tanjore worked only with pure silk. In Ramnad district, among others, the weavers shifted from producing rough cotton sarees to producing cloth from artificial silk and mercerized yarn.

The increasing use of cheaper and more attractive Japanese mercerized yarn not only displaced Indian mill-made yarn but also helped the handloom sector survive competition from Indian mills. In several districts as coarse cloth production was affected by Indian mill production the weavers shifted to the production of *kailis* or *lungis* and Madras handkerchiefs that had been manufactured on a much smaller scale earlier. Madras handkerchiefs were exported primarily to West, East and South Africa where they were used as clothing as well as curtains and cushion covers. The lungis were widely used in the South-East Asian countries and in Ceylon. While Indians settled in these countries had a taste for the products from Madras the *lungis* were also popular with the consumers in parts of Africa and South-East Asia. Yanagisawa has estimated that the share of the coarse varieties of cloth for the domestic market was probably less than one-third of total production in terms of value in the Tamil areas. Changes arising from transformation of clothing habits also had an effect on the evolution of the handloom industry. While the

kind could not continue in their traditional occupation, turning to factory work or agricultural employment. Saris and *dhotis* were some of the traditional garments produced by the handloom weavers, but the range of their products had greatly shrunk because of changing fashions and competition. Although the use of machine-spun yarn enabled the handloom industry to survive it also increased their dependence on middlemen. A system of advancing credit to the weavers developed in the Central Provinces in the late 1860's as a result of the decline in hand spinning and the dependence of weavers on mill yarn, specially in the urban areas. This increased their dependence on middlemen both reducing their profits and subjecting them to the vagaries of the market.

Though the fly-shuttle was an important factor in the ability of the weavers to withstand competition the innovation was not readily accepted in the early stages. In his efforts to popularize the fly-shuttle Chatterton discovered that the weavers of coastal Andhra districts, the Guntur and Krishna districts, were more responsive than those of large centres like Conjeevaram, Madurai, and Salem. In part this could be attributed to the greater rigidity of the caste system in the Tamil urban centres. According to Harnetty the rigidity and prejudices produced by caste could also partly explain the slower acceptance of the fly-shuttle by the Koshtis, a ritually pure caste of weavers established in the trade for long in the Central Provinces. On the other hand the Padmasalis who were Hindu immigrants from the Muslim state of Hyderabad had fewer prejudices much like the Momins who were Muslim immigrants from the Ganges valley. The diffusion of the fly-shuttle and the spread of the cooperative movement in the late colonial period helped the handloom sector of the Central Province to cope with the competition from the domestic and foreign mill sector.

34.6 DE-INDUSTRIALIZATION AND THE IMPACT ON EMPLOYMENT

In a brief article on the subject of employment in the textile industry of India in the 19th century Michael Twomey argued that the most severe employment effects of 'de-industrialization' took place between the years 1790-1830 and the years 1850-1880, the decline in the later period being much more significant. On the basis of his calculations Twomey concludes that employment in this period declines in Bengal by 244,000 FTJE and for the rest of the country by 56,000 FTJE. The full time job equivalents are calculated by including data on the number of weavers with that on spinners, the latter being mostly part-time workers, in terms of full-time employment. Since the value of Calcutta's exports fell from 14 to 1 million rupees or by 95% and that of the rest of the country fell from 11 to 8 million rupees or by 30% during the period 1790-1830 the greatest decline of employment was naturally in the eastern province of Bengal. Although the decline in textile exports constituted about two-thirds of Indian textile exports the drop was not a significant proportion of total production. The regional bias in the decline in employment is obvious and there were some options for weavers to take up silk weaving and using imported cotton yarn. The period 1830-1850 separates the period of declining Indian exports from that of declining handicraft production. There was not much decline of handicraft production since cloth imports constituted about 1 yard per person by 1850, which would have constituted about 10% of Indian production.

The real decline in employment took place in the post-1850 period when Indian production fell to less than 40% of Indian consumption. Therefore the greatest decline in handloom production took place in the 1850-1880 period when the cloth imports in India increased by 1500 million yards or 6 yards per person. Total consumption is estimated at about 11 yards per capita for this period. Twomey estimates that textile employment declined in

sheltered local markets. Within this constraint the traditional producers tried to innovate, adopted the use of cheaper imported yarn and tried to produce goods acceptable to indigenous, and especially local, tastes and preferences. More recent writers take a more optimistic view of the situation of the traditional artisan sector. Roy has identified four basic processes at work that influenced the growth of the handloom sector. First producers diversified into those sectors where they did not have to compete against mill products. Secondly, the inequality among the weavers began to grow over time and many weavers actually flourished. Thirdly, there was a growing concentration of weaving in the urban centres where the methods of production were more advanced than in the rural areas. Finally there were changes in techniques which influenced the handloom sector for example by the shift from cotton to man-made fibres and the adoption of techniques that had a tendency to reduce the role of labour, specially family labour, in yarn processing.

According to Roy handloom factories emerged in southern and western India during the 20th century and big weaving towns like Sholapur, Salem and Nagpur had *'karkhanas'* which by the mid-20th century had a capacity of between 10,000 and 20,000 looms each concentrated in these towns. Weavers during the 1920s and 1930s were increasingly coming under the influence of a large trader or producer. Mass production and trade developed more in the south because the preference for handlooms in this region was more pronounced and the dresses and costumes were less subject to changes in fashion. Factory towns developed in the south based on the migrants from the arid and famine-prone zones in which they were located. These factory towns were characterized by sharp inequalities among weavers specially because the migrant weavers of the lower castes had "unequal access to markets and resources." In north and east India where weaving was predominantly a rural activity the trader-cum-moneylender acquired greater control over the weaver-producers. Mass production was also made possible by a market-sharing pattern that developed. The mills produced piece-goods or cloth that had to be stitched while the handlooms produced finished products, specially draped cloths. The handlooms produced coarse and fine cotton as well as pure and waste silks. Their loom woven designs, primarily bordered garments were popular. The mills produced more medium-count cotton and printed cloth. In the inter-war period when viscose fibers were first used handlooms benefited more than the composite mills. The small-scale power loom sector, which emerged in the mid-thirties " was an outgrowth of the handloom elite."

While cloth output fell by 40% between 1850 and 1880 and loomage may have declined as well, Roy asserts that in the first twenty-five years of the 20th century handloom production rose by 30% in both India and China. The number of looms and weavers grew in Egypt, Syria and Java for short periods of time between the late-19th century and the mid-20th century. In India weaving was relatively detached from the land and the weavers were apparently the "only prominent craftsmen excluded from the *jajmani* system of product sharing."[Tirthankar Roy, *Artisans and Industrialization: Indian Weaving in the Twentieth Century*, Delhi, 1993, p.14 footnote 5.] The handloom industry was able to survive because of the "persistence of decorative and complex weaving" which is not related to expensive products or luxury goods. However, during the period of expansion in the 20th century it was based more on real incomes rather than relative prices. Direct competition with the mill sector was not a major factor affecting the growth of handlooms. In fact growth was based on a polarization between producers in these two sectors. Roy has asserted on the basis of his calculations that though the share of handlooms in the home market were subject to considerable fluctuations the upswings seemed to get progressively higher. The share of handlooms in the domestic market rose between

Table 10

Market shares, 1931-32 to 1937-38

Quantity (in percentages)

Years	Mill	Import	Powerloom	Handloom	All
1931-32	51.4	15.2	—	33.2	100
1932-33	47.0	19.7	0.4	32.9	100
1933-34	51.7	14.9	0.8	32.6	100
1934-35	53.2	16.4	1.0	29.6	100
1935-36	50.6	16.3	1.3	31.8	100
1936-37	54.9	13.6	1.6	29.8	100
1937-38	56.9	10.5	1.9	30.7	100

Source: Tirthankar Roy, *Artisans and Industrialization: Indian Weaving in the Twentieth Century,* Delhi, 1993, Table 10, p. 62.

Table 11

Market shares, 1931-32 to 1937-38

Value (in percentages)

Years	Mill	Import	Powerloom	Handloom	All
1931-32	35.1	16.5	—	48.4	100
1932-33	31.5	17.9	1.2	49.4	100
1933-34	35.5	13.3	3.0	48.3	100
1934-35	36.3	15.0	3.4	45.3	100
1935-36	36.3	13.1	3.2	47.4	100
1936-37	39.1	11.5	4.3	45.1	100
1937-38	36.9	9.2	5.3	48.6	100

Source: Tirthankar Roy, *Artisans and Industrialization: Indian Weaving in the Twentieth Century,* Delhi, 1993, Table 10, p. 62.

The classification of handlooms by fineness of yarn reveals that between the years 1906 and 1940 they were supplying a smaller proportion of coarse cloth by the latter date. This was a break from the trend in the nineteenth century when handlooms did well in coarse goods and fairly well in medium and fine cloth. In the years between 1906-1940 coarse-medium and medium cloth handloom production gained but the mills gained much more from the decline in British imports. This was because the Indian mills produced coarse and medium count yarns. Observes Roy, " Import-substitution in cloth by the mills favoured these classes, whereas import-substitution by handlooms favoured the finer classes." [See Table 12.]

Table 12

Segmentation of handlooms by fineness of cotton yarn

Yarn Counts	Handloom share in total yarn consumption (percentage)		Share of yarn group in handloom production, 1906 (percentage)	Market size 1940 (billion lbs yarn consumption)	Share of yarn group (percentage) 1940
	1906	1937-40			
1s-20s	41	28	55	0.71	55
21s-30s	6	24	9	0.30	19
31s-40s	26	33	27	0.15	14
41s+	23	49	9	0.09	12

Source: Tirthankar Roy, *Traditional Industry in the Economy of Colonial India,* Cambridge, 1999, Table 3.2, p. 78.

production and despite the growing importance of trade and finance in the 20th century it was easier for the producer to become a financier or merchant. There were two types of production units, which existed. One was the hierarchical team of male Muslim artisans, which "crystallized around master-apprentice lineages", and the other was the hierarchical team of parents and children in rural or semi-rural crafts or among Hindu artisans. Under the first type of unit, where the division of labour was more elaborate than under the second, many of the most refined products were produced in the *karkhanas*. Moradabad brass, Benares *zari* and brocade, Lucknow *zardozi*, Agra, Amritsar and Srinagar] carpets were some of the quality products which were produced by the Muslim artisans.

There is a case for a decline in employment, but the loss in employment cannot be attributed to the rise in imports alone. The numbers of potters and braziers also declined, as did those of rice pounders and builders. A range of quasi-services placed in the category of 'dress and toilet' was also adversely affected. Roy argues that the decline in these industries, which did not face competition from British goods, has to be regarded as " an effect of an as yet poorly understood macroeconomic transition." If British policy had an effect on this process of transition it was an indirect one. Although Indian handicrafts did decline somewhat the process of industrialization does involve the replacement of skilled workers by machinery. Moreover the real income per worker in industry increased at a compound rate of growth of about 1.7% per year during the period 1900-1947. Real income per capita grew by 0.7% during the same period. All this makes possible " a non-Marxist interpretation of the decline in handicrafts." National income data is used to prove that during the colonial period there was an increase in productivity. Real income in 'small-scale industry' increased by 72% between 1901 and 1947 even though employment declined. Average income in this sector increased by about 1.1% per annum; the average rate for 'large scale industry' was lower at about 0.9% per annum.

The traditional handicrafts did not survive primarily by accepting lower incomes and "becoming an industry of the poor for the poor." In actual fact while some weavers and artisanal producers suffered declines in both income and employment there were other segments of these industries which improvised and succeeded by improvements in technology and organization. The steady decline in the numbers of low-productivity workers is misinterpreted as evidence for a general decline in handicraft production. There were technological changes which facilitated increases in productivity: the use of the fly-shuttle, innovations in plating and polishing in brassware, use of power in the plating of wires in jari production, vegetable dyes and the warping mill in the case of textiles. There was also the growth of urban centres precisely because of urbanization in the crafts. Urbanization in 19th century India was closely related to craftsmen movements. However, in India the " productive role of artisans did not connect strongly with rapid economic development" as in the case of Europe and East Asia.

34.8 CASE STUDIES

Let us look at the evidence on the evolution of industries like brassware and leather.

34.8.1 The Case of Brassware

The Brassware industries were not threatened significantly by foreign competition. The use of imported brass sheets led to reduction in production costs. The use of brass sheets eliminated the older practice of melting scrap in crude furnaces. Mass production of utensils was facilitated by the use of sheets of a standard quality. The increased scale and variety of metals used at the end of the 19th century was a consequence of the diversification of consumption. Cheap transportation provided by the railways helped

stimulated by a variety of factors. The famines of 1876-8 and 1896-8 brought cattle to the market in large numbers. The Germans who had mastered the science of mineral dyeing and the Americans who had developed techniques of chrome tanning were major importers of Indian hides during the late 19th century. The railways also brought the hides and skins-producing zones in touch with the port cities where a lot of the hides were being tanned. The railways were a major reason for the growing urbanization of the industry. Once the slaughterhouses began to grow the number of tanneries in urban areas grew. By the early 1920s nearly a quarter of the 20 million hides produced every year came from the slaughterhouse. Now the tanneries could bypass the middlemen and deal directly with the butchers and the merchants who collected dry cattle from the villages. The breaking of the links between tanning and the rural economy is one of the reasons why the proportion of traditional leather castes engaged in the craft declined over time. The number of those employed in the leather industry did not decline during 1901-1931 in northern India but castes associated with leather declined in tanning. In the south, by contrast, the proportions of castes associated with leather were low throughout this period because several labouring castes, chiefly the Paraiyans, entered the leather industry. There were several processes at work. Many leatherworkers were giving up their craft to become agricultural workers or to join 'clean' occupations. Many became specialist tanners. Those who specialized in leather had three options, according to Roy, "to become subcontractors of hide merchants; to become workers in tanneries; and to become traders themselves."[*Traditional Industry,* p. 169].

As a result of the changes taking place the Chamar in the Punjab who lost traditional rights to fallen cattle was able to become a subcontractor in the new configuration because he was the only one who could flay and cure the hide locally. Also in the newly established tanneries in the urban areas only the Chamars were willing to work in the tanning sections. The traditional leather castes moved not only into tanneries in the urban centres but to a variety of occupations. In western India the Mahars moved into the cotton mills, railways and gin factories. From Chhattisgarh they moved into the tea gardens in Assam, and into a variety of industrial occupations in Bengal. The Malas and Madigas of southern Andhra went to the gins and presses. The migration of the rural tanner was also an outcome of the tendency of the cattle owners to sell their hides or cattle to the slaughterhouse or its contractors. The decline of many traditional uses of leather also weakened the links of the rural tanner to the village. Rural tanning in Gujarat, Khandesh and Marathwada declined because a centralized system of water distribution made the older irrigation water-bag irrelevant. Besides the peasants preferred the chrome-tanned leather for irrigation purposes, which the rural tanner did not produce. There was a small but significant minority of Chamars who became successful traders and entrepreneurs. Chamars owned tanneries in Lucknow as early as the 1880s; they were successful traders in the small towns of Bombay Presidency and in and around Kanpur, Raipur and Mysore. However in the largest tanneries of the country the Chamars were mostly industrial workers.

The reluctance of Hindu merchant castes to lend money to tanners and the ordinary artisans' aversion for raw hides led to a greater participation of non-Hindu and non-artisan participation in this trade. The growth of production in the factories increased steadily during the period after World War I. By 1952 a government report estimated that the rural tanner was processing only 43% of the hides whereas the factories were handling about 50%. There were three types of units, with the village tannery at the bottom of the hierarchy, using family and community labour. At a higher level was the town tannery, which had a slaughterhouse and a spot market in hides. At the

no denying the decline in traditional industry in the 19th century with Eastern India being the worst affected region. Even if in Madras Presidency in the 19th century the decline in handlooms is not much in evidence, according to Specker, there is a reduction in the range and quality of the products manufactured. There is a general shift towards the production of coarse cloth in this region too and the incomes of the weavers decline as they do in other regions exposed to competition from imported products. Probably the greatest decline in output, incomes and employment was during the period 1850-1880 for the country as a whole. The controversy about de-industrialization is not only about the extent of disruption and decline but also about the colonial impact on the Indian economy. The negative impact of colonial rule in India is a subject of wider significance and other elements of the critique of colonial rule will be taken up in subsequent sections.

34.10 GLOSSARY

Fly Shuttle — John Kay invented it in 1733. The weaver uses this by pulling a cord that triggers hammers to propel the shuttle left, then right, across the width of the cloth. The flying shuttle, fly shuttle or spring shuttle replaced the old weaving process of carrying the weft through the warp the shuttle had been passed by hand from side to side through alternate warp threads. In weaving two workers needed to throw the shuttle from one end to the other. With the flying shuttle, the amount of work a weaver could do was more than doubled, and the quality of the cloth was also improved. (See Illustrations on pp.37-38 of the present Block, Unit 35)

***Jajmani* System** — *Jajman* means patron. Under the *jajmani* system, in a village, members of different castes perform various services/ tasks for their patrons, usually members of the dominant castes. Service castes are linked through hereditary bonds to their patrons. The lower-caste members provide services according to traditional occupational specializations. Thus, client families of launderers, barbers, shoemakers, carpenters, potters, tailors, and priests provide customary services to their patrons, in return they receive customary seasonal payments of grain, clothing, and money.

Pit Loom — In this type of loom the weaver sits on cushions on the floor and puts his/her feet into a pit that houses the loom paddles. (See Illustrations on pp.44-45, Block 5, Unit 23)

34.11 EXERCISES

1) Give a brief account of Daniel Thorner's critique of the Nationalist thesis on de-industrialization.

2) Critically examine Morris D. Morris' argument that there was 'not much direct evidence of the decline of India's traditional industries.'

3) Analyse the impact of Lancashire imports on the Indian textile industry.

4) Define FTJE. Analyse the impact of de-industrialization on employment.

5) Examine Tirthankar Roy's argument on de-industrialization.