Traditional Industry in the Economy of Colonial India

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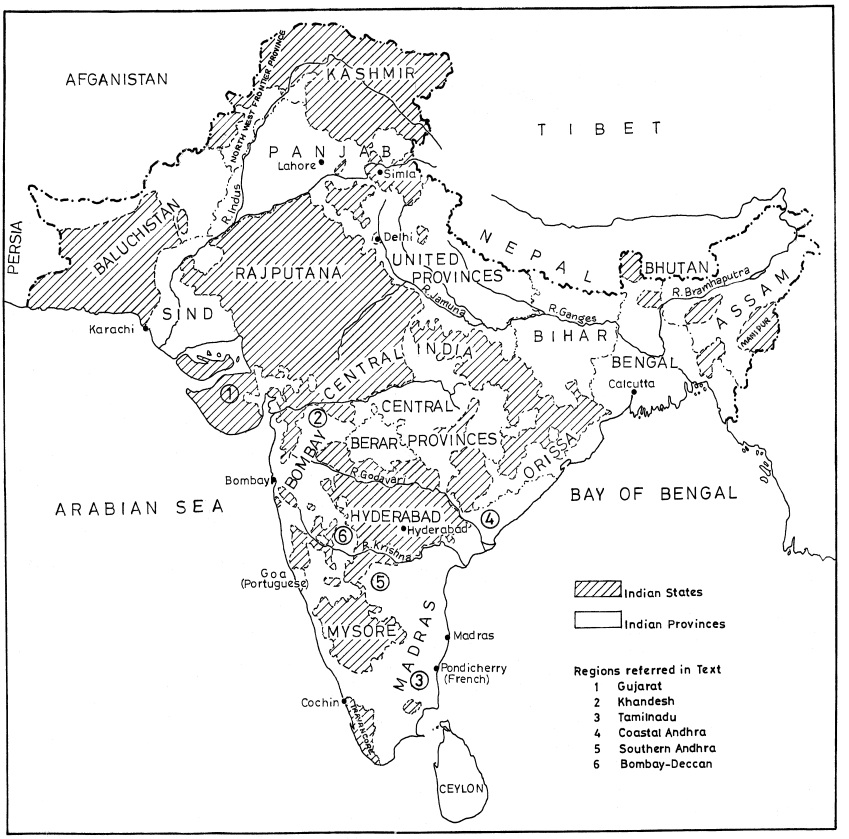
1 Introduction

The questions

Two sets of problems motivated this study on traditional industry, or the artisans,[1] in colonial India. The first arises in South Asian historiography, and the second in comparative development. The experience of the artisan has long been used to illustrate opinions about the impact of British rule on the economy of India and, therefore, has been a controversial topic in Indian historiography. The evidence on the artisan, however, is ambiguous. There are too many variations by region, industry and period to permit easy or uniform generalizations. The question remains: can a sufficiently general and convincing account of the artisanate be found? The book is primarily an attempt to answer this question. The answer proposed here leads to a desire to see South Asia in a larger context. The book suggests that traditional industry modernized and played a creative role in Indian industrialization. That traditional industry can play such a role is a familiar theme in the economic and social history of early modern Europe and prewar East Asia. A question naturally follows: which elements in the South Asian story are special to the region, and which shared with industrialization in general?

The period of the study is, roughly, from the 1870s to the 1930s. Occasionally, more recent trends will be cited for comparison. The raw material consists of descriptions of industries in which artisan enterprise was significant in this period, and remained so beyond the period. There are five such studies, on handloom weaving, leather, brassware, carpets, and gold thread (*jari*). Two of these industries, handloom weaving and *jari*, were deeply influenced by exposure to imported substitutes.

[1] In this study, the term 'artisan' or 'traditional industry' refers to industries that combine three loosely defined features: tool-based technology, non-corporate organization, and precolonial origin. In some contexts, 'artisanal' may refer to industries which are today run with electric power, but have artisanal origins, and reflect the connection in aspects of industrial organization.



Map 1.1 India in 1939

Brassware illustrates two processes: the integration of the home market and the creation of an export market. Carpets and leather emerged as major exportable goods in the colonial period. The experience of several other industries will also be cited occasionally, but they do not appear here as independent studies.

At one level, the cases are no more than simple narratives of a kind of enterprise deeply rooted in the region's economic life and yet neglected by historians. At a more analytical level, they illustrate a view of change which, simultaneously, disputes the most widely known position available on artisans in British India, and enables India to be compared with other cases of industrialization. Accordingly, the agenda of the introductory chapter are to describe the thesis developed here in opposition to the received view, and to consider the thesis in a comparative context.

The next two sections deal respectively with the significance of artisans for South Asian economic history, and the significance of South Asia for models of industrialization.

The proposal

The general line of argument followed in the book can be explained simply. There is little dispute among historians with the statement that economic contact between India and industrializing Europe had both a destructive and a creative impact on Indian industry. In the most influential view, the destructive impact has tended to be overemphasized. This book, by contrast, considers the creative impact the more important. A view in which the destructive impact dominates would imply that the industrial history of the colonies and that of the colonizers are essentially dissimilar. For example, it tends to suggest that industrialization in Britain meant 'de-industrialization' for her colonies. A view in which the creative impact dominates, by contrast, proposes that the two histories are similar in certain core aspects. It will be argued here, for example, that there are similarities in the effects of long-distance trade on the artisans.

In either view, the dominant source of change was long-distance trade. The sixty years between the opening of the Suez Canal (1869) and the Great Depression (1929) witnessed an almost continuous growth of external and internal trade, and changes in the nature of trade in India. Foreign trade became an immensely more powerful economic variable than ever before. Exports expressed as a ratio of national income increased from small amounts in the precolonial period to 10–11 per cent in the interwar years.[2] The region was integrated in an expanding world trade and payments system. The basic pattern of comparative advantage, which has not changed much till today, became established. In this new international division of labour, India's exports came to consist of natural fibres, leather, agriculture, a number of goods

[2] The ratio is a rough measure of the importance of trade. In 1925, it was about 11 per cent, or merchandise export of Rs. 4 b on a national income at current prices of Rs. 34 b. The value of exports increased 50 times between 1834 and 1925, and possibly over a hundred-fold between 1760 and 1925. Notwithstanding possible adjustments for changes in prices, the currency system, and real income, it is unlikely that nominal national income could have risen by a comparable magnitude between these dates. Under realistic assumptions, the ratio was much smaller than 11 per cent in 1760 and in 1834. Trade figures are from K. N. Chaudhuri, 'Foreign Trade and Balance of Payments' in Dharma Kumar (ed.), *The Cambridge Economic History of India*, vol. II, *c.1757–c.1970* (Cambridge, 1983). 1925 income is from S. Sivasubramonian, 'Revised Estimates of the National Income of India, 1900–1901 to 1946–47', *Indian Economic and Social History Review*, 34, 2 (1997).

intensive in craftsmanship, and labour itself. The process was initiated by commercial and industrial revolutions in the West, but secured by political and administrative means.

Within India, a national market emerged in a number of basic goods and services that were imperfectly if at all traded before. Agricultural goods are one example. Labour, which became much more mobile than before, is another. Political stability and unity aided internal economic contact. Perhaps for the first time in India's history the political centre was overwhelmingly more powerful than the periphery. Economic integration was also aided by safer passage, a judiciary meant to define, honour and enforce contracts, a uniform monetary system, and uniform fiscal regulation. Faster and cheaper transport brought about agglomeration of trade, occasionally of consumers as well. Where the commodity in question was an exportable, its trade gravitated towards the ports where most railroads in India originated from, and converged in, until recently. Increased access to the world market often meant access to inexpensive imported inputs and, therefore, a shift of material trade towards the ports or the railways. More generally, easier communication discriminated the favourably located against the remoter territories in terms of access to information about buyers, sellers, processes, and technologies. All these changes had older antecedents, and they continued later, but the core infrastructure needed to hold a market economy together was more or less completed in these sixty years.

The effects of extended trade and infrastructure have engaged the greater part of economic history scholarship on the region. The usual questions considered include why goods and services earlier gifted away or bartered became commodities, what it meant to market structure and organization, whether it made the participants better or worse off, and what role the State played in the entire process. Agrarian history has examined how peasants responded to a world demand for Indian raw material and grain. Where marketed surplus became sufficiently large to motivate changes in levels of production or productivity, historians have looked for the growth-inducing effects of markets, or explained their absence where they did not appear. Both of these explanations involve studying the interactions between markets, and the social, cultural, ecological, and demographic contexts in which they appear.[3] Business history similarly has examined the sources of capital in the first mills,

[3] For a selection of recent and reprinted essays on these themes, see K. N. Raj, N. Bhattacharya, S. Guha, and S. Padhi (eds.), *Essays on the Commercialization of Indian Agriculture* (Delhi, 1985); D. Ludden (ed.), *Agricultural Production and Indian History* (Delhi, 1994); and S. Bose (ed.), *Credit, Markets and the Agrarian Economy of Colonial India* (Delhi, 1994).

and the markets where their output was sold. Usually, these were trades of relatively recent origin.[4]

By contrast, artisans represent one major form of occupation on which the effects of this process have remained more or less unexplored. Industry probably employed about 15 per cent of the workers in the middle of the nineteenth century, that is, about 10–15 million persons. Industry was not only numerically a large sector, but contained producers known worldwide for craftsmanship. Such scale and such quality must have been affected in complex ways. Yet, studies that show, with convincing and diverse examples, how they were affected, remain scarce.

Nevertheless, a coherent position on the artisans, the only available 'theory' where artisans are seen in relation to the overall economic environment, does exist. A Marxist tradition in development scholarship has consistently argued that the destructive impact of economic contact with Europe on the modern Third World outweighed any possible creative or productive impact. Two types of evidence are commonly used in support of this view: the distress of the Indian textile artisan facing competition from British cloth and yarn in the nineteenth century; and a decline in total industrial employment in India in the census period, 1881–1931. In a criticism of this view, some authors have pointed out that industrial income per head did increase in the colonial period, so that the decline in artisanal and overall industrial employment cannot be read as a sign of economic regress.[5] It is possible to go further, and suggest that the evidence on the artisan has tended to be rather simplified. On three main grounds, some of them already articulated in the relevant literature, this book disputes this evidence.

First, the experience of textiles is ambiguous. Cotton textiles, the largest industry in the region, did have to cope with competitive imports from mills in England. Hand tools were pitted against machinery, and, in the ensuing battle, hand tools lost much employment and income. And yet, qualifying this story, recent works in textile history have shown that, in handloom weaving, competitive decline was not a general occurrence, but specific to certain types of market and apparel. Non-competing hand-woven cloths, on the other hand, experienced long-distance trade not as a debilitating force but possibly as a creative one

[4] The cotton mill industry in western India, for example, owes its origin to profits from the export trade in cotton and opium from Bombay, and trade in British products brought to India. See Morris D. Morris, 'The Growth of Large-Scale Industry' in Dharma Kumar (ed.), *The Cambridge Economic History of India*, vol. II, *c.1757–c.1970* (Cambridge, 1983), 573–4.

[5] The Marxist position and its critique are more fully discussed in chapter 2, where all citations appear.

(chapter 3). Moreover, in industries other than cotton textiles, competitive imports are more or less an exceptional feature. A general model of transition, therefore, needs a wider sample of industries than textiles, and needs to deal with the effects of economic exposure other than external competition and competition from mechanized industry.

Secondly, the evidence on employment is ambiguous too. The censuses do suggest a decline or at best a stagnation in the total numbers engaged in industry. Male employment in industry remained close to 9–10 million between 1901 and 1931. But these totals probably hide contradictory tendencies. The more detailed censuses conducted after independence (1947) found that employment in industrial units mainly using family labour has steadily declined between 1961 and 1991, both in absolute terms, and relative to employment in units using wage labour. A part of the increase in wage employment occurred in mechanized industry, but the bulk of it occurred in units not officially classified as 'factories', units that tend to be highly labour-intensive and non-mechanized, or 'artisanal' by our definition. There is no reason to believe that this tendency started after 1947. More realistically, it was set in motion by structural changes in the colonial period. Since family labour is likely to be less specialized than wage labour, the trend implies rising average productivity despite the stagnation in overall employment. Consistent with this finding, national income statistics of both pre- and post-independence periods show a growth in industrial incomes and productivity even with low growth rates in industrial employment.[6] In other words, the stagnation story suggested by census employment totals is misleading. Any worthwhile story about industrial transition must consider technological and organizational changes within artisanal industry.

Finally, the received view is inconsistent with the long-term character of industrialization in India. In 1911, 95 per cent of industrial employment was located outside officially registered factories. In 1991, 71 per cent of industrial employment is still located outside registered factories. This informal employment consists of 6.8 million persons in the shrinking household industry and 13.4 million in unofficial factories. The latter include various forms of wage employment not directly influenced by the regulatory regime. The share of the latter in industrial employment has been growing very rapidly in recent years.[7] In some of the densely industrialized cities where this growth is concentrated,

[6] See chapter 2 for a more detailed treatment.

[7] Between 1961 and 1991, the share of factories in industrial employment increased from 15.3 per cent to 28.6 per cent, that of unofficial factories from 24.6 per cent to 47.7 per cent, and that of household industry fell from 60.2 per cent to 23.7 per cent: India, *Statistical Abstracts for India* (Delhi, various years); and India, *Annual Report 1994–5*, Ministry of Labour (Delhi, 1995).

industrial clusters specialize in activities that began well before independence. A closer look suggests that, in all of them, capital and labour have mainly agricultural or artisanal origin.[8] The most famous example is the conversion of handlooms into power-driven small weaving factories.[9] There are similar examples from leather, metals, glassware, and ceramics. Of course, in the long run, artisanal industry has seen many changes in product composition, organization, and to some extent in technology. But overall, it has not just survived, but shaped the character of industrialization both in colonial and post-colonial India.

This is the broad message of the five examples studied in this book. Artisanal activity survived in India for the same reasons that it has done elsewhere in the world: consumer preference, absence of mechanized alternative, or favourable factor endowment. But the survival was not static. For artisans needed to adapt to changing conditions of demand and supply from the nineteenth century onwards, induced mainly by the extension of long-distance trade. The effects of long-distance trade appear neither as purely deleterious, nor as simply expansionary. Bearing broad parallels with other historical instances, the effects were mainly qualitative. Competition increased. Patronage and old 'moral economies' collapsed. New types of trade, merchant, and financier arose. Division of labour and specialization increased. Systems such as putting-out and factories spread. More locally, there arose merchant-manufacturers, and 'industrialists' in some of the modern senses of the term,[10] though this last movement was restricted both in scale and in spirit.

Because artisanal technologies were under no immediate threat, the most visible dimension of these changes was institutional. New and distant markets led to efficiency-enhancing changes in industrial organization. The examples in this book suggest two specific sources of organizational change. First, new or distant markets made capital and

[8] Some examples are, Surat, Bhiwandi, Salem-Erode area in small-scale weaving of cloth on the powerloom; Agra, Dharavi, and the Madras suburbs in leather; and metalworking and woollens in western Uttar Pradesh, Punjab, and Haryana. For a survey of the literature and a study on the artisanal roots of industrial entrepreneurship in modern India, see Tirthankar Roy, 'Capitalism and Community: A Study of the Madurai Sourashtras', *Indian Economic and Social History Review*, 34, 4 (1997). On agrarian roots of enterprise in small-scale industry and trade, a useful survey of the literature is Mario Rutten, *Farms and Factories* (Delhi, 1995), chapter 1.

[9] Probably the single largest industry in India today, such factories, called 'powerlooms' in India, employed about 4 million persons in 1991. This figure accounts for 20 per cent of wage labour in industry, and 33–35 per cent of wage labour in the informal sector industry. Factories employed 8.7 million in 1991. Wage labour in industry numbered 21.9 million. See Tirthankar Roy, 'Development or Distortion? Powerlooms in India, 1950–97', *Economic and Political Weekly*, 33, 16 (1998).

[10] See on 'The Industrialist: A New Man', the review in the first chapter of François Crouzet, *The First Industrialists. The Problem of Origins* (Cambridge, 1985).

information scarcer resources, thus enabling or forcing those in possession of these resources to control production. And, secondly, 'asymmetric information' between buyers and suppliers made possible opportunistic behaviour on the part of the supplier. In the skilled crafts, where the main consumers were formerly the local bosses, opportunism was earlier kept in check by the political superiority of the consumer. Long-distance trade and the anonymity of the buyer removed these checks and initiated a 'regulatory vacuum' in which problems of quality and delivery became acute.[11] New organizations were often local experiments with regulation.

The hypothesis that trade had a creative impact on the artisan is not a new one. That long-distance trade could transform artisanal enterprise in ways that might enable the latter to raise productivity is a theme common to early industrialization in Europe, and late industrialization in Japan. The story outlined here in part belongs in this larger narrative.

South Asia in context

Although the term 'Industrial Revolution' has sometimes been questioned, most economic historians would agree with the idea of a major discontinuity between industrial conditions in Britain and Western Europe before the late eighteenth century, and those after. The discontinuity can be seen in technology, organization, sources of demand, the role of long-distance trade, and the intersectoral transfer of capital and labour. It is also, however, a received wisdom that the early stage of this transition, despite the great inventions that came towards its close, is distinguished not by the general adoption of machinery, which happened selectively and slowly, but by the incremental but historically unprecedented rise in productivity within the older manufactures. For Britain, Maxine Berg has shown that conventional examples of technological breaks, cotton, metals or the generalized use of steam power, were the rather more dramatic cases in industrialization. The general case was a rise in productivity and output in a number of industries based mainly on hand tools, such as leather, wood-working, and construction.[12] We see here the extension of industrial capitalism primarily in 'a change in organization and not in the apparatus of production', to

[11] The term is taken from the introduction in C. Sabel and J. Zeitlin (eds.), *World of Possibilities* (Cambridge, 1997), 27.

[12] 'A more effective division of labour force, and the reorganization of commercial and mercantile networks surrounding the production process could all generate gains in productivity, even on their own.' Maxine Berg, *The Age of Manufactures, 1700–1820. Industry, Innovation and Work in Britain*, second edition (London and New York, 1994), 40.

use Paul Mantoux's words.[13] The adaptations in modes of work and methods of production were cumulative, but sufficient in making possible a rise in average incomes. In several countries of the European continent, early expansion in demand for industrial goods generated a 'dualistic' development of craft-based and machine-based industries. The dualism has persisted into the modern period.[14] In a different way, the accent on institutional choices and the resultant gains in flexibility reappears in the literature on European 'proto-industrialization', which has described capital accumulation based on domestic production in the countryside. A central idea of this literature is the comparative advantage of the 'family economy', a composite of putting-out, household production and rural industry.[15]

Bearing parallels with these reassessments of how industrialization 'began', a recent literature on firm strategy in historical perspective has 'reassessed the idea of a triumph of mass production . . . to the point of obliteration'.[16] The story of Western industrialization which thus takes shape allows decentralized production a key role, and sees organizational change not in terms of clear choices between the old and the new, but in terms of 'hybrids'. In most historical and several contemporary examples, the strategy involves an economy of diversification, or a certain 'open-endedness' of the final output.[17] This economy tends to be large for small firms using tools or generic machinery and skilled labour, and small in large firms with specific machinery and narrowly skilled labour.[18] It is this economy which preserves a role for artisanal

[13] Paul Mantoux, *The Industrial Revolution in the Eighteenth Century* (London, 1928). The introduction defines the revolution mainly in terms of the extension of factories, which involved a separation of capital from labour. Mantoux criticizes Karl Marx, among others, for making an artificial distinction between 'manufacture' and 'factory' and identifying the latter with the use of machinery.

[14] See the contributions in M. Teich and R. Porter (eds.), *The Industrial Revolution in National Context. Europe and the USA* (Cambridge, 1996).

[15] For a recent survey of the historical patterns of rural industry, see Robert S. Duplessis, *Transitions to Capitalism in Early Modern Europe* (Cambridge, 1997). On institutional aspects, see the discussions in S. C. Ogilvie and M. Cerman (eds.), *European Proto-industrialization* (Cambridge, 1996).

[16] For a review of this line of work, see the introduction, 'Stories, Strategies, Structures: Rethinking Historical Alternatives to Mass Production' in Sabel and Zeitlin (eds.), *World of Possibilities*.

[17] Michael Piore, 'Technological Trajectories and the Classical Revival in Economics' in Michael Storper and Allen J. Scott (eds.), *Pathways to Industrialization and Regional Development* (London and New York, 1992). The use of this strategy has revived in the industrial countries after the 1970s for a number of reasons. See also the introduction to this collection of essays.

[18] The former usually appears in the form of dense collections of small firms transacting between themselves for input requirements. The vertically integrated firm illustrates the latter.

industry, organized in myriad hybrid ways, in economy-wide accumulation of capital.

In Europe, transregional demand was a crucial impetus to industrialization. So it was in late-nineteenth-century Japan, though the impact of long-distance trade, being the outcome of a delayed exposure, is much starker in Japan. As in South Asia, there was decay and dislocation in the older crafts, notably in segments of textiles, but there was also adaptation in other crafts and other segments of textiles which became successful exporters.[19] The sources of competitiveness of traditional industry had several bases. One was cheap but skilled labour. The other was the flexibility with which labour could be utilized for markets that valued differentiation. In this process of primary accumulation, which lasted in Japan well into the interwar period, neither mechanical invention nor mass production, nor even fundamental adjustments in the composition of industry, was the key feature. The key, almost invariably, was the creative use of labour in traditional industry under new systems of production and exchange. In broad outline, the same message reappears in the examples from India presented in this book.

However, to suggest a similarity in experiences does not amount to proposing a single evolutionary model, nor to ignoring differences. One obvious difference is in the outcome of the transition. The industrialization built on the basis of traditional industry clearly did not generate prosperity or development in South Asia comparable to that in Europe or Japan, 'development' being defined as a sustained rise in average income. Income and productivity did increase in absolute terms, but slowly in comparative terms in the long run. What was missing? Nothing in our examples supports a Marxist answer to this question. Trade, markets, or colonialism as such did not play a regressive role in South Asia. The answer, therefore, is to be found in the quality of the South Asian soil where industrialization was born, but did not attain maturity.

Indeed, European or East Asian evidence does not suggest that artisanal enterprise is the same thing as industrialization in the modern sense. They are certainly related. The former creates new organization, new towns, and new methods; it enables accumulation of capital, and facilitates factor markets – all of which assist industrial maturity. But the evidence also suggests that mature industrialization based upon mechanization, formally trained labour, and a rapid growth in labour productivity, needs much more than enterprising artisans. For example, demographic maturity is necessary to alter the factor mix, that is, the proportion of available capital and labour. Government intervention is

[19] A fuller discussion of the East Asian experience appears in chapter 2.

necessary in a number of areas, most importantly, in universal education, public finance, and financial development. Structural change in agriculture is necessary to create a home market for industry and to supply cheaper material. If some of these conditions remain weak, the result will be an industrialization unable to break free of its roots; one which not only begins with, but also continues to be reliant on, the artisans and manual labour. This, as chapter 2 in this book will argue, is more or less what happened in South Asia in the last century or so.

Plan of the book

The book consists of six main chapters, and a brief conclusion. Chapter 2 presents a more detailed outline of the economic history of the Indian artisan. The outline generalizes from the material of the industry examples, and compares India with other industrializing regions. Chapters 3 to 7 present the five examples. Each chapter is roughly divided into two themes: market extension, and industrial organization. On the former theme, the experiences of various industries overlap. But, on the latter aspect, that is, old and new systems of production or sale, they seem to differ a great deal. One of the main tasks for this book, therefore, is to boil down the industry descriptions to a more abstract account of organizational change. The greater part of chapter 2 is devoted to that task.