

# **Cotton Textiles And Ming/Qing China In The Global Economy (1500-1840)**

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## **Introduction: Locating the Chinese Cotton Textile Industry within the Parameters of East Asian and Global Trade**

Recent analyses of the economy of Ming China (1368-1644) have referred to its great transformation: from 'a closely administered agrarian realm', China became an arena of competing commercial *entrepôts* and specialized cash-cropping regions (Brook 1998;cf.Zurndorfer:1989;2002). As the early Ming 'bucolic world' of rural self-sufficiency slowly dissipated, and the prestige of commercial wealth challenged the habits and constraints of everyday life, new occupations such as the manufacture of cotton cloth gained ever greater importance for both producers and consumers. Although it remains debateable whether the flourishing Ming economy became the centre of the world economy (Frank), it is certain that by the end of the sixteenth century the interaction between the Chinese production of, and the European consumption of silks and porcelain was in full swing, and that it would take at least another 200 years before the power of technology and the drug trade would shift this situation into other directions. It is also important to remember that China at this time, and later, had vital trading partners within Asia, and that under the guise of the 'tribute system', engaged in lucrative commerce with these regions, and well into the nineteenth century (Hamashita:1990;1997).

Hamashita's publications demonstrate how the spread of the 'Mediterranean concept' of overseas history, fostered by Fernand Braudel, with its focus on maritime units encompassing several regions and/or countries, rather than individual nations or particular locales, has stimulated scholars to write about Asian zones in this way (e.g. Chaudhuri:1985;1990 on the Indian Ocean; Reid:1988 and 1993 on Southeast Asia; cf. Souza 2005; Wong). In Japan, historians(such as Hamashita),mindful of the 'Sino-centric vision' of East Asian history, have also expounded the validity of a 'multi-dimensional approach' to the East Asian world order, i.e. a viewpoint anchored in the 'overlapping' relations, as opposed to the hierarchical bonds, between China and its neighbours. In that way, the seven-volume series edited by Mizoguchi Y ō z ō , *Ajia kana kangaeru* (Thinking from an Asian Perspective) has underscored the importance of understanding the regional dynamics of trade within East Asia, especially patterns of historical development that are neither 'universal' nor Western per se.

This idea of 'regional dynamism' is a crucial facet to one of the best-known themes of East Asian history (which also has strong connections to global history), i.e. the 'silver century', the hundred years or so circa 1550-1650 when large quantities of silver, first from newly-opened mines in Japan, and then from the New World via Manila penetrated China, a development associated with 'the restless movement of money, commodities, and statuses of the late Ming' (Brook 1998:158). The massive influx of silver into China that peaked around 1600 facilitated seafaring merchants (whether Chinese, Japanese, Portuguese, Spanish, or Dutch) to conduct transactions along the littoral of China, Korea, and Japan, which thereby helped increase the flow of commodities and specie even further.

However, modern scholars debate the total impact of silver imports on the domestic Ming economy. Some, like William Atwell, have argued the silver influx was the primary stimulus to commercialization in Ming China from the 1580s onward, and consequently, the decline of New World imports from the 1620s a key factor to the destabilization of the economy before the dynastic collapse. Others see the cause and effect in the 'opposite direction': "commercial expansion in the domestic economy, by raising the demand for media of exchange, attracted silver from abroad and promoted foreign trade" (von Glahn:142). Richard von Glahn contends that in the seventeenth century, Japanese silver mines compensated for the reduction of American imports, and that the high price of silver then was due to a falling demand for goods, not declining stocks of specie.

In any event, whatever the magnitude of the 'silver thrust' into the late Ming economy, the allure of East Asian trade was only temporarily stalled after the fall of the Ming. Within decades of the Qing (1644-1911) takeover, Chinese junks and foreign ships once again regularly plied the intra-Asian sea routes between East, Southeast, and South Asia, delivering grain, spices, porcelain, sugar, tea, and exquisite textiles, while silver from foreign mines also flowed again into the Chinese littoral and lubricated trade opportunities. In this 'second session' of regional dynamism, unlike the first round, cotton cloth manufactured in Jiangnan, the principal cotton cloth production centre in China, played an important role. The 'nankeens' that American, British, and other Europeans shipped all over the globe became a staple export commodity. Although cotton cloth production had 'boomed' in the mid-Ming, the industry only 'internationalized' in the Qing. In this paper, we will investigate what conditions inhibited cotton's export in the earlier era, and compare the results thereof with the background to Qing exports. We will then analyze those circumstances which may or may not have

contributed to the integration of the local economy of cloth production with overseas trade. We begin our discussion with a brief narrative history of cotton and textile production in China.

### **A Brief Narrative History of Cotton Textiles in China until 1644**

Cotton (mian or mumian, in Chinese) is not a plant native to China, although it had been grown in Chinese peripheral regions for centuries before the common era (BCE). There is at least one reference in the *Hou Hanshu* (The Dynastic History of the Later Han [CE 25-220era]) that the Lao-ai tribe in the southwest border region produced good-quality cotton cloth (Deng:377). Even earlier, around 200 BCE, official documents recorded the existence of cotton cloth in what is now Yunnan. Recent archaeological research on mummies found in the Tarim Basin has uncovered cotton textiles, dating from the first millennium BCE, whose origin may be traced to India (Mallory and Mair:212). But even within China itself, already in the Early Han dynasty (circa 100 BCE), local weavers based in Sichuan in western China were known for the fine cotton cloth they produced (Chao:10).

Such written and archaeological evidence suggests that the early history of cotton cultivation and textile processing in China falls under what one historian has termed 'southernization', i.e. the multi-faceted process by which crops such as sugar and cotton, and the development of various related technologies, spread from southern Asia (what is now India) elsewhere (Shaffer 1994; 2003). The 'southernization' of cotton to China involved in fact two species of the plant: (1) the African-Asian species (*Gossypium herbaceum*) which followed a northern route overland from Central Asia to China's Gansu and Shaanxi provinces (the Silk Route, in

reverse); (2) the South Asian species (*Gossypium arboreum* and *Gossypium hardense*) which travelled a southern course overseas from India (east Bengal and Assam) to Burma, Vietnam, and on to Hainan Island, Yunnan, Guangxi, and Guangdong in China (Deng:377). In other terminology, one may situate this initial phase of the history of cotton cultivation and textile production in China as part of 'proto-globalization', the earliest stage of global integration (cf. Waley-Cohen; Hopkins; Osterhammel/Petersson).

Cotton seeds were first shipped along the Silk Road during the Tang dynasty (608-907), and the second species of cotton was planted in what are now Guangdong and Fujian provinces around the ninth century (Schafer:205). But this region, with its high humidity, was in effect unsuitable for textile manufacture. In the north, cotton cultivation was still restricted to Xinjiang in the mid-seventh century, and 500 years later had only reached the Hesi Corridor of Gansu. The climate of these semi-desert regions was too dry to encourage cultivation, and what cotton was grown was of poor quality (Chao:6-7). Other obstacles that prevented the spread of cotton cultivation related to political and fiscal regimes. Only after its cultivation extended from these southern regions northward, into non-tropical zones of the lower Yangzi valley sometime by the twelfth century, did cotton growing and textile production become truly established. The diffusion of cotton cultivation, and the development of cloth production was a two-step process.

#### a) The Expansion of Cotton Cultivation

The greatest impediment to the spread of cotton growing in China before the second millennium was the silk lobby. According to the leading historian of Chinese cotton, Kang Chao (Gang Zhao), the influential and powerful silk industry situated in Xi'an, at the beginning point of the Silk

Route, effectively barred cotton from penetrating Chinese textile production in northern China (Chao:7). Given Xi'an's status as capital of China over the centuries, it seems logical that the silk industry's interests were closely linked to those of government authorities. The extent of such influence may also account for the ability of the silk industry controllers in Sichuan to form a blockade against any penetration from cotton merchants into its markets (Chao:10-11).

Before the Song era (960-1279) there were two reasons for government aversion to cotton. First, as sumptuary regulations were based on the distinction between silk and hemp, the latter of which was worn by the majority of inhabitants, successive dynastic governments from the first through ninth centuries regarded the wearing of cotton garments a threat to the preservation of social status markers. Second, as cloth (both silk and hemp) had monetary use in the payment of taxes, the financial authorities viewed cotton as a potential complicating hindrance to the fiscal regime. Thus, it was only during the waning years of the Tang dynasty(circa ninth century) when the central government's available revenues in silk cloth was so greatly reduced through loss of authority over silk-producing regions (Twitchett), that the position of cotton in China changed.

The spread of cotton cultivation first into the lower Yangzi valley, and then elsewhere in China took several hundred years. Once again, government interest was crucial. Already in the early Song period, cotton (of the perennial variety) had become a commercialized crop in Fujian (So 2000:31,71,73; Nishijima:21); the quantity of cloth produced here was sufficient to supply the government's annual quota of 5000 bolts as part of this region's 'tribute' sent to the Song court (So 2000:79-80). The development of this perennial into an annual facilitated its diffusion northward where it could grow in a wide range of soils and climates. The

Song government's initiatives to open and reclaim the 'land south of the Yangzi' (Jiangnan) had brought vast amounts of land under cultivation, and taxation. While farmers grew rice in Jiangnan's extensive irrigable flat lands, they began to cultivate cotton in the region's higher, drier, and sandy-soil uplands. By the late Song-early Yuan period (circa 1270-1300), cotton cultivation extended from the Guangdong-Fujian area to the lower Yangzi region, to the Huai River basin, Sichuan and Shaanxi areas (Nishijima:19). In its waning days, the Song state issued an agricultural handbook, *Nongsang jiyao* (Fundamentals of Agriculture and Sericulture; 1273), in which the details of cotton cultivation were also explicated.

The diffusion of the cotton plant was also supported by the successor Mongol Yuan government; it instituted in various provinces around the lower and middle Yangzi regions bureaus to provide technical information and encouragement to local farmers to grow cotton. Finally, the Yuan government in 1296, following Song government policy, incorporated cotton into the tax system at various favourable rates to encourage its advancement even more (Bray:213).

#### b) The Development of Cotton Textile Production

Cloth production could not really take off as a rural handicraft until two problems were solved, i.e. ginning and carding: "before the end of the thirteenth century the Chinese did not have efficient techniques for cleaning the raw cotton, preparing rovings and spinning them into yarn" (Bray:215). The solution was found, according to a well-known legend, when a Daoist nun Huang Daopo (b.1245?--?) returned from Hainan island to her native village Wunijing in Songjiang prefecture (near modern-day Shanghai) and introduced the cotton gin which eliminated the seeds from the cotton plant. She is also credited with communicating "the multiple-spindle treadle-

operated wheel, which allowed one woman to spin several threads simultaneously" (Bray:215; cf.Kuhn:212). As for the weaving process, this did not present any bottleneck: traditional looms used for the fabrication of other materials such as silk, ramie, or hemp proved adequate. Local weavers applied the drawloom technology employed in silk manufacture to cotton cloth making (Nishijima:23).

In the Yuan era, the greatest demand for cotton cloth came from the Mongol armies stationed in the northern regions; they needed uniforms made of some kind of warm, light-weight and resilient material. In the course of their conquests and movements through Central, West, and South Asia, the Mongols must have perceived the value of cotton textiles: cotton cloth's strength, durability, and effectiveness as a padded cloth against winter chill, or as a light, absorbent fabric against summer heat. Archaeological discoveries in Xinjiang have revealed the inner linings of Mongol army uniforms, underwear, pants, and inner jackets were all made of cotton cloth (Chao:19). The 'Pax Mongolica' may not have transformed global political and cultural institutions in the long run(Osterhammel/Petersson:38),but it is likely the cotton textile industry of China would not have taken off without the Yuan government's assertive promotion policy.

The Ming dynasty continued the policies of its predecessor, i.e. to encourage cotton cultivation, and the production of cotton textiles, as a means of gaining revenue. Soldiers, their families, imperial households, official emoluments and exchange for horses in the frontier markets all came to depend on the government fund of cotton (Wiens:517). Modern scholars have suggested, based on the account in the *Ming shilu* (Veritable Records of the Ming), that the government cotton consumption could have been as high as fifteen million bolts (pi) per year before 1400 (Yan Zhongping:15-17). At this point, we should take note of the relevant measurements pertaining to



cotton cloth. A recent study by the economic historians Xu Dixin and Wu Chengmin documents that a bolt varied in width from 32 to 41 centimeters and from 5.72 to 11.45 meters in length. The average pi was seven meters in length, and could be woven by one person in one day (XuDixin and WuChengming:215-16; hereafter, referred to as Xu/Wu).

The Ming government fostered a tax policy which assessed obligation in the form of cotton and/or cotton cloth, but which also allowed the tax payer to substitute cotton or cotton cloth for grain to fulfil quotas. A major source of this taxation originated in the prefecture of Songjiang where, along with silk-producing Suzhou, the first Ming emperor set excessively high tax burdens. As the grain tax was commuted into cloth equivalents, local people had to produce cloth not only to meet the fiscal requirement but also to earn enough income for subsistence. For tenant-farmers, participation in cotton production helped them to pay the high cost of rent which was itself a consequence of the increased tax-quota. Rent payment in cotton, called *huazi*, was accepted by landlords not only on cotton fields but on land with rice as the major crop. From time to time, the Ming government was also known to exacerbate demands, so for example in the 1430s eunuch-commissioners, despatched to Jiangnan, charged 'extra' tribute--another 800 bolts above the normal requisite, according to a local gazetteer, the *Wuxian zhi* (cited by Marmé:137). Thus, the high tax/rent had a direct impact on the 'popularization' of the rural cotton industry.

In the second half of the fifteenth century, cotton textile production in Songjiang had become completely commercialized, and by the end of that century, it was claimed in local gazetteers that this prefecture "clothed the empire" (Songjiang mianbu, yibei tianxia). The partial conversion of taxes from kind to silver, initiated by the local prefect in 1486, pushed the commercialization of Songjiang cotton even further. During this half-century,

in Songjiang and in other Jiangnan regions, i.e. Jiading, Suzhou, and Hangzhou, the amount of raw cotton production could not meet the demands of cloth fabrication. Consequently, large quantities of ginned cotton had to be shipped down the Grand Canal from northern growing regions, or up the coast from Fujian and Guangdong to fulfill the requirements of the Jiangnan spinners and weavers. Already, in 1466 cotton cloth merchants from Jiading, Kunshan, and Suzhou jointly established a guild at Linqing, a key centre on the Grand Canal in Shandong province. As Marmé comments (234), this development indicates cloth production had now diffused beyond Songjiang—until then Jiading and Kunshan had been cotton-growing zones but now they too were becoming cloth exporters as well. The installation of the guild also implies the government's persistent interest in the cotton industry.

In the sixteenth century, cotton cultivation had extended even further northward and westward: the bulk of the cotton utilized in Songjiang workshops came mainly from Henan, Hebei, and Shandong (Nishijima). In these northern regions raw cotton was not processed because the dry climate there hindered spinning; the thread became brittle and uneven. Thus, an interregional trade developed whereby the northern provinces supplied Jiangnan with cotton that was processed into cloth, and the textile producers bought grain and foodstuffs from their profits. The development of cotton culture in Ming China stimulated regional crop specialization: "rice land was crowded out by cotton, necessitating closer interregional dependence for subsistence and commercial goods and in turn stimulating the rapid growth of markets and market towns" (Wiens:519). A well-known official Xu Guangqi (1562-1633) wrote in his 1628 treatise *Nongzheng quanshu* (Comprehensive Treatise on Agricultural Administration) about the Jiangnan and Shandong-Henan market exchange: "Nowadays in the north the price of raw cotton is low yet that of finished cotton is high, and in

the south it is just the reverse. Thus cotton is transported and sold to the south, whereas the finished materials are shipped to the north for sale" (Xu Guangqi:708).

Estimates of cloth production in the late Ming vary –one estimate gives 20 million bolts annually (Yan Zhongping:15-17), and another as high as 50 million (Li Bozhong:109) while technology also improved the quality of textiles. City/town looms located in the Suzhou-Songjiang region rivalled production by families in rural areas where the bulk of the fabrication continued to take place. In the urban loom houses wage workers performed cotton ginning, bowing, carding, spinning, weaving, dyeing, and calendering on a year-round or seasonal basis (Wiens:522). The principal buyer for the high-quality fabrics made here was the government which claimed a fixed quota order. But the rural peasants who produced lower-quality cloth were also enmeshed in this procurement system. With the tax these rural producers paid in cash, the government gained the means to purchase the high quality cloth (Wiens:523). Thus, peasants had to sell their own cotton products, which were geared to the lower end of the consumer market, in order to meet their fiscal requirements.

The bulk of cotton cloth production in late imperial China remained a small-scale rural undertaking, dependant on family solidarity, and it is for this reason that modern scholars have queried the role of women's labour in this enterprise (Bray). For instance, they have probed women's earning capacities and the relationship of their work input to mortality rates (e.g. Elvin). Living standards, rates of labour intensity, and expectations about female propriety and work, have been the foci of a number of studies. In two recently published articles, Kenneth Pomeranz has analyzed the 'competing perspectives' of Hill Gates, Philip Huang, Jack Goldstone, Li Bozhong, and Mark Elvin, about these issues. He counters their views with some general

observations about the significance of the Chinese work ethic that amounted to a kind of 'badge of honour'(similar to the shibboleth 'to work is glorious'),and the volatility of women's earning power. He postulates that women's earning capacities were much higher than these scholars have suggested, and that women's contributions to the general family production very much prized. Accordingly, two adult women weaving in one household may have proved just as advantageous as sons who did agricultural labour (Pomeranz 2005). As in sericulture, a poetic and visual ethos that encouraged women's labour in the fabrication of cotton cloth evolved. The *Mianhua tu* (Pictures of Cotton [Cultivation and Weaving]), first published in 1765 illustrated the essential role of women in the family economy (cf.Mann:165-68).

Sometime before the Ming dynasty ended, there was a 'breakthrough' in the production of textiles in the north. People in Suning, Hebei discovered that cotton could be spun and woven during the northern summer if it was done in underground cellars where humidity could be conserved (Chao:21; Bray:217). As knowledge of this process quickly spread, so did cotton weaving. And thus, by the close of the dynasty in 1644, northern cloth first began to compete with Jiangnan-made textiles.

### **Commodification without Overseas Export: Unravelling a Ming Myth**

While cotton 'boomed' in the Ming, as both cultivation and cloth production went way beyond the level of self-sufficiency, commerce increasingly dominated both the production and distribution processes. Long distance merchants (keshang) supplied ginned cotton to specific Jiangnan locales for spinning, and from there local merchants dealt with the yarn and

cloth. The average peasant household delivered their finished cloth pieces into market towns where licensed cloth brokers(yaren) purchased these for sale to keshang. The yaren were usually locals in possession of the necessary personal connections to both officials and local gentry (Fan Shuzhi:139-41), while the keshang were typically sojourners from regions outside Jiangnan; they shipped the finished cotton cloth to other regions. In a certain sense it was they who created an empire-wide market for Songjiang products. The two most powerful and wealthy keshang were those from Shanxi in north China, and those from Huizhou (Anhui) in central China (Zurndorfer 1989). Both trading groups had access to large amounts of capital and could advance as much as 100,000 taels of silver in advance for large orders of cloth amounting to 50,000 bolts or more (Fujii). These entrepreneurs traded not only in textiles but also in other commodities. and through their extensive networks had ties to a variety of enterprises, some of which involved overseas trade.

Despite the centrality of merchants to the advancement of cotton textiles in China, this industry, nevertheless, was not evolving toward capitalism. As a number of modern scholars have argued, the system of Ming cotton production cannot be compared to one of the critical phases in Europe's transition to capitalism, i.e. the putting out system whereby merchants advanced capital to rural workers in the form of raw materials, and controlled their product (Nishijima; Tanaka; Brook 1998; and for opposing views, Fu Yiling and other PRC-based scholars). In contrast to the European putting out merchant who purchased the producer's labour power by providing raw materials and 'setting the pace of production', the Chinese textile merchant monopolized the market, by 'buying cheap and selling dear' (Brook 1998:199; Bray:221). Consequently, cotton production did not

present an opportunity to usher in change to the local social structure or to alter the relations of production.

Also, cotton cloth did not enter into the fold of overseas trade either before, or after 1567 when the Ming ban on foreign commerce was lifted. During the decades before the repeal of the embargo, illicit seaborne traffic flourished all along China's coast, bringing Chinese copper cash, weapons, ironware, and silk yarns and goods (and thus, not cotton) to Kyushu (Japan) in exchange for Japanese silver. As this trade intensified, with ever more Chinese local merchants, including those from the Huizhou, in need of silver to finance the export of regional products within China, tensions mounted, culminating in the 1550s with wako (Japanese pirates) raids along the Jiangnan littoral. At one point, it was reported, a group of these invaders reached the Jiangnan interior and killed 'thousands' of local people (Tong). In fact, this band of 'raiders and traders' was not simply Japanese in origin but a multi-ethnic floating assembly of Chinese, Malaccan, Siamese, Portuguese, Spanish, and even African adventurers anxious to gain 'booty' in exchange for the white metal (Antony). The intensity of the assaults suggest that the suppressed integration of domestic Chinese commerce with overseas demand had come to a head, and that Chinese products had become essential to East Asian economies (cf. Zurndorfer 2004a; 2004b). This latter phenomenon preoccupied Chinese literati in the decades after the raids ended; it became a common practice among late Ming writers to assign phrases such as 'after the disorder of the Japanese marauders' when they communicated about Chinese-Japanese trade relations (Brook 2002:51). They also began to elaborate how Japan relied on Chinese trade, and in the process, they incorrectly included cotton textiles among those items the island country desired.

For example, the Hangzhou official Yao Shilin writing in the 1590s some forty years after the worst of the wako invasions, described how Japan depended on this 'trade':

Nearly all the needs of Japan are supplied with products from China. Their homes are furnished with Chinese rugs and curtains woven in the Chang'an quarter of Hangzhou; the rouge, powder, fans, and lacquered goods used by Japanese women, and the gold and silver leaf needed by their artisans, all are manufactured in Hangzhou as well. Porcelain from Jingdezhen, silk and brocade from Huzhou, pongee, and satin from Zhangzhou, and cotton cloth from Songjiang are considered especially precious in their country (cited in van Glahn:120-21). Despite Yao's mention of cotton as one of Japan's prized imports, there is little to no evidence to support this declaration which has been reported in modern scholarship, but not really substantiated with written evidence (e.g. Lin Renchuan, ch.6; or Li Bozhong:108).

According to recent research by the Hong Kong scholar Billy K.L. So, Yao's source of info was one conversation with one Tong Hua, a maritime merchant from Jinhua, Zhejiang (So 2005:170). Because of his visits to Japan, Tong had good knowledge of that realm. During the time of the campaigns to rid coastal regions of the wako, Tong had served as a spy in Japan. But, as So points out, when Yao interviewed Tong, the latter was already over seventy years old, and thus, it is probable he simply recounted what were common beliefs about Japan at the time of the insurgency, i.e. Japan needed Chinese imports.

So analyzes that, given cotton cloth's primary use as an item of daily consumption in Ming China, and the government's monopoly of the highest quality fabrics, it is unlikely that overseas traders could have provided space in their cargo for bulky cotton bolts in place of highly valuable silk materials

which could fetch extraordinary prices in Kyoto's burgeoning Nishijin district. So has also argued that the 3000 çangalas of 'nankeen' ('Nanking' which broadly meant Jiangsu province at the time) C.R. Boxer reported in his volume *The Great Ship from Amazon* (p.180) were shipped to Guangzhou for purchase by Portuguese traders, could not have been cotton, or even a variation thereof, sibu (a mixed fabric of silk and hemp) (So 2005:171-72). The figures that the Portuguese merchant Pedro de Baeza supplied for the purchase of this textile, Sopostulates, would have driven silk, cotton, or any other quality textile out the market. As he writes:

The price for this textile...[was] 1.3 taels, most likely representing the price in Canton as Pedro Baeza knew. If we assume that the entire cargo of 3,000 pieces consisted of this 'sibu', and if we assume it sold as well as the high-valued silk textiles in Japan at 3 taels, it would have yield[ed] a profit of 5,100 taels—twenty percent more than the silk products. This means that under the condition of a balanced supply and demand of this mixed fabric, its profit margin would have been even greater than that of silk textiles. As a consequence, it would have driven the latter, and all other cotton cloth, out of the market (So 2005:172).

Professor So concludes since this did not happen, it is implausible that there was any large-scale export of cotton to Japan. Also, Professor So points out there is not a single recording of cotton goods among the list of Chinese imports compiled from Tokugawa government registers preserved in the logbooks of the Dutch traders in Nagasaki. Finally, he recalls the evaluation by the late economic historian Quan Hansheng that even in Manila where Chinese merchants came to trade, the demand for raw silk and silk textiles eclipsed that of any other commodity, cotton included (Quan Hansheng vol.1:460-61). Local cotton cloth production had been in effect in the Philippines since around the year 1000, and thus the people there would



not have had any need for Chinese cotton. Thus, it seems reasonable to agree with So's judgment, that during the late Ming era Indian cotton cloth dominated the textile trade in Southeast Asia, and that the Chinese commodities of copper cash, silks, and porcelain were the major export items in this region throughout the seventeenth century.

We conclude that during the Ming the expansion of cotton textile production did not extend into overseas trade. Whatever importance Jiangnan cotton cloth had achieved in domestic markets up to the mid-seventeenth century, the keshang in charge of its distribution, did not widen their networks beyond China's borders to market this fabric. And the Chinese traders with the easiest access to overseas trade, those from Fujian and Guangdong provinces, probably found there was no demand for ordinary Chinese cotton goods in Southeast Asia.

### **The Qing Trade Tangle in Raw Cotton, Refined Sugar, and Ravishing Nankeens**

The Qing era brought major changes to cotton cultivation, cloth production and distribution. Whereas in the Ming period, cotton cultivation had been a speciality of certain locales in Jiangnan and of the northern provinces of Henan, Hebei, and Shandong, in the Qing the cotton plant became a common crop found almost everywhere. Types of cloth, and the dyes that coloured them, came to be associated and known by the particular regions in which they were produced (Xu/Wu:170-73;224). In Jiangnan, farmers continued to cultivate cotton on peripheral highlands while the yield per mu increased. According to the modern economic historian Li Bozhong, the cotton output in this region rose from eighty catties in the late seventeenth century to around 100catties in the mid-

nineteenth century, probably due to improved fertilization inputs (Li Bozhong:124). He also estimates that late Ming Jiangnan cloth production equaled some 50 million bolts per year, while the same region in the mid-Qing production reached 100 million bolts per year (Li Bozhong:109). Unlike the Ming government, the Manchu regime did not enforce a compulsory procurement system. This meant that peasant producers, as well as the high quality loom houses were now very much dependent on market forces (Chao:22).

Perhaps, the most outstanding change to the cotton regime of the Qing era occurred in Fujian and Guangdong provinces. Until the mid-seventeenth century, in both these regions cotton was a common crop. But in the first decades of the Qing period farmers there had begun experimenting with double-cropping rice, and introducing sugar cane and tea cultivation on a wide-scale. By 1700 cotton farming in these two provinces had decreased, and almost disappeared in some locations. Rural households in these provinces did continue to manufacture cloth but their raw cotton came from Jiangnan to where Fujian and Guangdong merchants coastal shipped, in exchange, 'hundreds of loads' of refined sugar (Chao:22-23; Marks:173-74). According to Sucheta Mazumdar who has made an intensive study of China's sugar industry, the same merchants who carried sugar to Jiangnan were those who imported the cotton southwards. She quotes the contemporary observer Chu Hua, author of the eighteenth century *Mumian pu* (A Treatise on Cotton):

In the second and the third month people from Min (Fujian) and Yue(Guangdong)come carrying crystallized sugar for sale. In the autumn they don't buy cloth, but only ginned cotton and return to the south. Hundreds and thousands of ships all load

up, pile upon pile of bags, because there [in Min and Yue], among themselves they can spin and weave it (Mazumdar:105).

One should also consider this commerce in the wider context of how the Qing imperial government fostered and supported domestic coastal shipping in the eighteenth century. Since the 1680s government authorities had innovated new policies to legalize trade and commerce along the coastal periphery of the empire through customs organization and administrative backup. The result was that by 1750 a thriving and complex net of trade and shipping linkages integrating the northern and southern sectors of the coastal economy emerged, while commercial ties between the coast and the interior regional economies via riverine and caravan transport routes intensified. Recent economic research into local market transport networks has argued the high degree of 'interregional and intertemporal' integration eighteenth century China enjoyed (Shuie). Also, now eight major long-distance coastal trade routes, from the four southern coastal provinces, Guangdong, Fujian, Zhejiang, and Jiangsu linked southern and central China to the northern ports of Shandong, Zhili (including Tianjin), and Manchuria's Fengtian (Huang Guosheng).

Outside trading opportunities extended too to overseas commerce with Southeast Asia, and again, with the endorsement of the Qing government (Reid 1996). To the Nanyang (Southern Ocean) region which included what is now modern Vietnam, Cambodia, Thailand, southern Burma, the Malay peninsula, Sumatra, western Java, and the northeast coast of Borneo, Chinese merchants exported manufactured or processed goods (porcelain, earthenware, brass and copperware, paper, and silk and cotton textiles) and imported rice, building wood, textile dyes, spices, and not least, raw cotton (Marks:171). Unlike the earlier Nanyang trade focus on

luxury items, in the eighteenth century, exchange now was heavily oriented toward 'bulk items' (Lieberman). Another item which China exported overseas both to Southeast Asia and to India in great quantities was alum, a metallic compound used in textile dyeing processes. Asian as well as European traders found alum also useful as ballast in shipping (Souza 2004).

By the first half of the eighteenth century, it became apparent that despite the plenitude of raw cotton imports from Jiangnan and Nanyang, the amounts were insufficient to meet the needs of Fujian and Guangdong cotton cloth production, some of which itself (e.g. Foshan, twenty kilometres west of Guangzhou) was now also focused on overseas export. It was at this point that Britain via the English East India Company (EIC), and later British-Indian traders began to fill in a gap: Bombay cotton for Canton sugar became a mainstay of overseas trade (and an ideal ballast) between India and China. Mazumdar recalls the first recorded instance of this exchange:

...in 1704, the 'Catherine' carried 1,116 piculs (148,428 pounds) of raw cotton, which had been picked upon a 'trial basis' in Surat, apparently the first shipment of western Indian cotton sold by the British in China. It was taken to Xiamen (Fujian), where it bought 5.50 taels per picul. Sugar in Xiamen, however, could be purchased for 2.50 taels per picul, almost paying for a return cargo close to twice the weight of the cotton shipment. The 'Catherine' carried back 2,500 piculs (332,500 pounds) of granulated white sugar and another 800 piculs (106,664 pounds) of sugar candy at 4.00 taels per picul. (Mazumdar:104, quoting Morse, vol.1:130-31).

Over the course of the eighteenth century British import of Indian cotton to China expanded enormously, due in part to lower shipping costs of the Indian goods in comparison to native carriers' charges (Chao:23). By the

1780s, according to Yan Zhongping, Indian raw cotton imports more than tripled (as measured by value) from 1780 to 1785, and then tripled again 1795 to 1815 (quoted in Marks:178). Such trade also added to the Chinese customs revenue –records show that by the end of the eighteenth century, the Chinese government could expect a healthy income of around one to two million taels of silver per year in paid duties. Moreover, by this time, the customs collected from British, American, and European ships importing tea, silk, and other Chinese goods eclipsed that from Chinese coastal and Nanyang trade by four times (Marks:177).

The Indian cotton trade at Guangzhou became ever more important to the British as they sought ways to overcome their trade deficit in China. However, as the Chinese demand for Indian raw cotton did not expand fast enough to counterbalance what the EIC paid in silver bullion for tea and other requisitions, it came to rely more and more on opium to check its deficiency. This story is well-known, but as a recent study of opium in China has argued, the legitimate 'cotton for tea trade' was sufficient to pay for all the tea purchases Britain made in the early nineteenth century. David Bello has calculated, using Greenberg's statistics (p.13), that in 1828 the total sales of goods to China by the EIC and private traders amounted to \$21,364,600 of which \$9,123,131 was in cotton and other goods (presumably that which the country merchants 'transshipped' from other Asian locations). This income almost completely balanced the Company's \$8,479,284 tea purchase for the season. In other words, the legitimate trade was sufficient to pay for Britain's tea exports. The imbalance developed because of the other commodities Britain bought from China. Again, Bello has reckoned, this time using Morse's statistics (vol.1:190-91), that for the period 1818 to 1833, the British sale of Indian cotton totaled \$195,942,151 an amount which easily should have covered the total sum of its tea

purchases, \$124,182,160 in the same period. But if one adds the amount \$84,988,952 Britain spent on other items, then there was a considerable deficit, i.e. \$13,228,961. It was this kind of deficit which the import of \$104,302,948 worth of Indian opium for the same period subsidized, and which gave Britain a \$91,073,987 trade surplus (Bello:38).

Part of that surplus was used to procure yet another prized Chinese textile, the 'nankeens', alluded to earlier. This high quality cotton cloth was in fact manufactured in Songjiang master loom houses, finished in specialist calendering quarters in the Jiangnan region, and then transported from there via the sea to Guangzhou by the same licensed *hong* merchants who supplied Westerners with tea and silk goods at that location. Often compared to silk, the nankeen was a specially refined, beautifully coloured, smoothly finished, ravishing cotton fabric that at the height of its popularity dazzled eighteenth century European drawing rooms. Morse records the first trade statistics pertaining to this item for the year 1734 when the EIC made a trial purchase of 100 bolts (Morse vol.1:224), and from then onward the export steadily rose over that century and into the next, with a peak of 3.36 million bolts in 1819; thereafter, figures begin to drop, finally to a 'trickle,' of only 30,000 bolts in 1833 (cf. Quan Hansheng vol.2:639-43). However, before that point, for some thirty years beginning around 1800, nankeen export averaged around 1.2 million bolts per year. Also, until 1800, not only EIC ships but also American, Dutch, French, Danish, Swedish, and Spanish vessels carried cargoes of nankeens. Thereafter, the export was dominated by American ships who monopolized from fifty to eighty percent of all nankeen export (Quan Hansheng vol.2:639). The downturn in nankeen export in the 1830s and thereafter may be attributed to the success of Lancashire and New England cotton mills which along with the closure of the

EIC all helped change the direction of cotton cloth shipments from 'east to west' to 'west to east'.

From a Chinese perspective, the demise of the foreign nankeen export market which accounted for forty percent of Jiangnan's production (Li Bozhong:109) seems not to have had a direct repercussion on the local economy. Although this amount appears a large chunk of the Jiangnan's livelihood, the fall in overseas exports hardly made a dent, if one considers the place of cotton cloth within the parameters of the total domestic economy. More than half (52.8 percent) of all cotton cloth produced in mid-Qing China entered the empire's interior interregional trade and domestic market (Xu/Wu:173-78). The average mid-Qing household consumed 8.4 bolts annually (Li Bozhong:109); by the early nineteenth century, low-to-medium grade cotton cloth became China's most important 'industrial' product (still in effect a farm/home fabrication) bought and sold in China, even outpacing salt. Like grain, cotton cloth was exchanged and transported via some 50,000 kilometres of inland waterways and coastal routes leading to transit centres and thereupon to commercial towns and inland markets (Xu/Wu:425).

As in the Ming era, the success of marketing this cloth was due to influential Shanxi and Huizhou merchants who controlled established commercial networks, and streamlined financial transactions across many provinces within the empire. But neither of these groups was involved in the marketing of nankeens abroad. In fact, one may argue, as Billy So has done, that the export of nankeens had next to nothing to do with Chinese maritime trade –the interest in nankeens originated among the Westerners themselves who had the foresight to predict the attraction of this particular cotton fabric to foreign consumers already familiar with the quality of Chinese silk goods. In order to procure these cotton textiles, the Western

merchants had to deal with the designated hong merchants, usually Guangdong natives who themselves had no vested interest in the production and sale of Jiangnan-made fabrics. Therefore, when the demand for nankeens declined, the major Chinese merchant groups were not affected by the change. Professor So also makes the point that compared to the high degree of integration of overseas trade and southern Fujian's regional economy during the thirteenth century (in the Song dynasty), the mid-Qing market for cotton cloth destined for overseas was not consolidated into the 'interplay' between foreign demand and local supply forces.

Thus, by the 1820s-30s, the picture that emerges of China's overseas cotton trade is a limited one: gross domestic productivity and consumption seemed to have outweighed the impact of the global market. Even by the 1840s when British exports of cotton goods to China 'soared' to a high of £1,735,000 (but never rose further; Chao:88), China's domestic market could override the effect of foreign imports.

### **The Other Side of the 'Nankeen Story': The In/Visible World of Global Dislocation**

The image of an outside world with little to no connection to the Chinese interior was reflected in the writings of one mid-nineteenth century English observer. Reporting in 1859 on the reasons for England's failure to increase its home exports to China, W.H. Mitchell noted that the British: were about to start in competition with the greatest manufacturing people in the world, with a people who manufactured cloth for themselves when the nations of the West wore sheepskins, and that any development of our manufactures in this country must necessarily be very slow because the 'beautiful and simple economy' of peasant household production renders the



system literally impregnable against all the assaults of foreign competition (quoted by Perdue:56).

Such sentiment aside, however walled off China may have seemed to an approaching 'flood of foreign imports', the country was in fact very much linked to global movements of silver, and unfortunately, the shifting opium market.

With regard to silver, in the last quarter of the eighteenth century, as the supply of East Asian silver from Yunnan, Burma, Vietnam, and maritime silver from Japan declined, China began to rely on the influx of that from Latin America which was imported by the British, and to a lesser extent, Dutch traders. According to the studies of the Taiwan scholar Lin Man-houng, the influx of Latin American silver from 1775-95 increased China's money supply at a faster rate than did that both for population growth and agricultural production, resulting in a general price increase but higher incomes for both the populace at large, and the Qing government (Lin 2004). And, as Flynn and Giráldez have emphasized, China at this point was just as dependent on silver from the outside world as Western countries may have been to the imports of Chinese tea, silk, and porcelain (Flynn/Giráldez:395). Western traders also profited from silver's arbitrage value. A unit of silver exchanged for more gold in China than in Europe, and the same unit of silver also had a higher interest rate in China, with the yearly compound rate being eighteen to twenty percent (Peng Xinwei:540).

But with the collapse of the *ancien régime*, the Napoleonic wars, and the end of the Spanish empire in Latin America, there ensued a worldwide depression whose effects were probably visible by the 1820s in China. Lin Man-houng, using British Foreign Office documents, has calculated figures comparing world silver production since 1790-99: the total world silver production decreased by 6.6 percent in 1800-09; 49.5 percent in 1810-19;

and 56.6 percent in 1820-29. When the total value of silver and gold in various years is compared with the total value of silver and gold in 1790-99, it appears that there was a decrease of 4.8 percent in 1800-09, and 49.7 percent in 1810-19 (Lin 1993). Opium smuggling also undermined the Qing monetary system and added to the declining stocks of silver in the first decades of the nineteenth century. Thus, according to Lin, China's silver drain and loss were due to three intersecting trends: Chinese imports of opium, paid for with silver; economic depression in Europe, with a corresponding loss of foreign markets for Chinese tea and silk; and the decline in world silver production (Lin 1991).

Von Glahn counters Lin's tripart analysis by emphasizing the drastic reduction in the world output of silver as the determining factor for China's monetary woes in the 1830s and 1840s. Supporting Louis Dermigny's thesis that the "considerable appreciation of silver in the West raised the demand to hold silver stocks (especially in the USA whose exports of silver to China fell eighty percent)," von Glahn proposes that China's domestic economy was severely affected by the general worldwide monetary crisis. For one thing, "the value of silver (relative to gold) on world markets exceeded the domestic value of silver in China, eliminating the incentive to export silver to China" (von Glahn:256).

For China's domestic economy, the silver shortage exacerbated a serious devaluation in copper coinage, the medium by which wages and retail exchanges were processed throughout the empire. The complex relations between silver and copper tended to drive both metals out of legal circulation whenever the market value of their ore content exceeded their denominated value. In effect, the government could exert no effective control as silver coinage had never been standardized and only professional

money-changers could determine silver's relative value to copper which also circulated in official, counterfeit, and foreign forms (Bello).

This discussion on money and currency for the trade history is also relevant for evaluating the cotton trade both in the domestic and foreign spheres in the mid-Qing period. We have argued that in Qing China, local markets and wider interregional, or external trade were not in competition with each other, and thus were seemingly independent of each other. But in fact, the two different currencies used in payment, copper cash for local transactions, and silver for wider empire or international exchange in the cotton trade were drawn into the early nineteenth century monetary crisis, and thus factors to reckon in the overall assessment of China's cotton industry (cf. Zurndorfer 2004c:8-9).

In his provocative book *Ch'ing ka teikoku no kōzō to sekai keizai* (The Structure of the Chinese Empire and the World Economy) Kuroda Akinobu maintains that the copper/silver monetary distinctions helped promote economic stability within China because they allowed the possibility of commerce across its land and sea borders, without 'disruption' to the local economy. This may in part explain why the Chinese cotton cloth industry was seemingly unaffected by decreasing overseas exports. But as he also argues, and persuasively, in the long term this double-money system inhibited the formation of a national currency and an economy equipped to participate in international markets. In that way, whatever strength and financial success the overseas cotton trade had achieved in the early nineteenth century, the industry remained subject to the waxing and waning of silver flows into, and out of coastal China. Moreover, interior China felt the brunt of monetary crisis in the long term as price impulses through currency devaluation were transmitted long distances way beyond the littoral.

In sum, cotton may have been 'king' for a long time in China, but its reign from the mid-eighteenth century became just as dependent on economic forces outside China as those from within. China's own economic history had become an integral component to global integration and dislocation. In other words, the trajectory of China's development during the mid-Qing era was a matter of convergence, or converging forces, that sealed the fate of its divergence thereafter.

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