Cotton Textiles, Division of Labour and the Economic and Social Conditions of Women: A Preliminary Survey

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The paper that follows is an uneasy combination of two projects. Part One attempts to describe the transformations of the Chinese cotton textile industry, focusing on the scale, location and personnel of production, and earnings and skill requirements in various kinds of textile work. It makes only minimal references to any other economic activities. Part Two looks at a related but clearly separate issue: changes in both the normative and actual gender division of labour in China, the social and cultural impact of situations in which the normative division of roles was in serious conflict with strategies for economic maximization, and the implications of different configurations for the status of women both within their household and in the larger society. Necessarily, then, it digresses to look at some other activities as well: principally agriculture and silk production. Much of it is also economic history only in a loose sense, focusing on questions such as how work that involved greater or lesser amounts of seclusion affected perceptions of women's status and particularly speculatively) the self-perceptions of these women. I hope, though, that by juxtaposing these different kinds of inquiry, I can shed additional light on some of the complexities of assessing the significance of both labour conditions and quality of labour in this historically critical sector.

Part I: Cotton Textiles in China: Chronology and Economic Overview:

The history of Chinese cotton textile production is a long one: this had become a fairly substantial sector by the mid-1300s, and remains an important one today. The majority of the work force has almost always been female, and until relatively recently, primarily rural. However, the location, organization, economic returns to the producers, and other aspects of the

effect of this work on the producers' lives have all changed markedly over this long period. This first section tries to sub-divide this history into several periods, which raise different issues.

1) ca. 1350-1580:

Cotton textile production was overwhelmingly located in the Lower Yangzi region. There were both urban and rural weavers, with urban weavers tending to be male, belonging to a semi-hereditary artisan class, and focusing on higher-end products, often woven for the state at fixed (and increasingly unrealistic) prices. Rural production quickly became dominant numerically, with the producers mostly female. These producers, in turn, fell into 3 rough categories:

a) female bondservants on large estates, often organized into fairly large units of production and spinning and weaving as part of the service they owed, with little or no cash return. Many of these women would have been household servants, but some would also have been part of dependent cultivator households.

b) free women producing cloth to meet an in-kind tax demand, and thus also largely unaffected by changes in the market value of cloth, but now producing in small, usually family-based units with 1 or very few looms.

c) free women also producing in household units, but doing so in order to sell the cloth on the market. In many cases, of course, the same woman might be engaged in both b and c. It is likely that relatively few of these women's households depended on income from cloth sales for a large share of their basic subsistence, and only a minority of the women would have been completely free of agricultural duties.

2) ca. 1580 -1710:

By late Ming times, the social basis of production had shifted dramatically, so that almost all cotton textile production was by rural women producing for the market. Category “c” above.) The majority of in-kind tax obligations were converted to silver (by stages, but with the most important change in 1581). Almost all of the registered artisanal families who were supposed to produce for the state at fixed prices had escaped this status in one way or another. And a combination of uprisings and legislation was eliminating most of the great estates and bound labour in the Lower Yangzi – a process that would be completed by the massive violence that accompanied the Ming-Qing transition in the 1640s. Some large and wealthy households would still have produced cloth in larger workshops, with a senior woman coordinating the work of daughters, daughters in law and female servants, but these were relatively few in number, mostly concentrated on luxury products, and increasingly likely to be focused on silk rather than cotton.

For the rural women who now made up the large bulk of the producers, a few salient facts stand out. First, in most cases the adults among these women would previously have worked alongside their husbands in the fields, but did less and less field labour as the textile economy grew. For most of them, as we will see, this involved an improvement both in their earning power and their social status. Second, the limited data we have suggests that the real returns to textile production in this period were generally quite high on average but also quite unstable, with very large year-to-year fluctuations (driven, I think, more by changes in the nominal price of rice than that of cloth). At the same time, shrinking average farm sizes and rising rice imports to the Delta suggest that many families now relied on textile sales to meet a significant share of their basic

living expenses, so that changes in the amount of rice a piece of cloth could buy were critical. These wildly fluctuating returns (in sharp contrast to the earlier period, when price was largely irrelevant to the actual producers) produced a number of important effects, particularly insofar as they created a clash between an increasingly firm ideal of a gender division of labour in which women should stick to textile work (more consistent than field work with culturally prestigious female seclusion and foot-binding) and economic realities which made it a great sacrifice to adhere to that pattern in years when the real price of textiles plunged.

3)ca. 1710-1860

The basic social organization of cotton textile production did not change much in this period, though there is some evidence that big merchants may have established greater control over the production process of higher grades of cloth, which were most likely to be traded over long distances. The two biggest changes, as far as we can tell, involved the location of production and the real returns to production. At the beginning of this period, cotton textile production was still heavily concentrated in the Lower Yangzi, but over this period various other centres of production emerged. First North China (which had long produced raw cotton but not processed it) had begun spinning and weaving its own cotton in the 1600s, thanks in large part to technical innovations, and now began to do much more of this; meanwhile Guangdong (which did not grow cotton) began acquiring raw cotton in return for sugar and developed a substantial weaving industry, serving both its regional market and an export market in Southeast Asia.(Marks 1997) In the late 18th and 19th centuries, a number of other areas began to produce cotton cloth as well, often thanks to direct promotion efforts by the Qing government: it has been estimated that by the very end of

the Qing most Chinese counties produced some cotton cloth. One result of this, as I have argued elsewhere, was serious pressure on the returns to cloth production in the Lower Yangzi, which faced increasing competition for markets in the rest of the country, and rising prices for the primary products it imported from areas which, as they became more densely populated, no longer had such large surpluses of rice, raw cotton, etc., to sell.

Price data for this period, though better than what we have for earlier years, is still far from ideal. What we have, though, seems to suggest that the wild year to year fluctuations of the 17th century became much less frequent as the rice market stabilized and the Qing provided a more stable currency; raw cotton prices do seem to have had more spikes than either grain or cloth prices, but these would not have mattered much for the large number of women who got their raw material from their own family's farm. The average level of returns appears to have been fairly high for the first 60 or 70 years of the 18th century: certainly higher than those available in other work for women, and high enough that (for instance) a widow during those years could support herself and a couple of children on the proceeds of textile work -- even assuming for the moment that she had to do both the weaving and the much less lucrative spinning. (The market for yarn appears to have been surprisingly small, and spinning earned very little per hour; on the other hand it could be done by girls as young as 9. Households that could shunt most of this task onto children who otherwise would have earned no income could raise the returns to adult woman workers quite dramatically.) In the latter part of this period, the price of cloth (as measured in rice) declined fairly steadily – at least in the Lower Yangzi-- and raw cotton prices rose, so the returns to female labour fell quite significantly, but there is nothing to suggest that women abandoned this work on a large scale. Some seem to have offset the decline in real prices (which seems to

have been sharpest for lower grades of cloth) by moving into production of higher grades (which presumably involved some increase in their skills), but very little is known about this.

4) ca. 1860-1949

One important development of this period was the growing use of machine-spun yarn: first from Britain, then from India, then from Japan, and then (to a lesser extent) from modern mills in China's coastal cities. By the 1930s, machine-spun yarn represented about 70% of Chinese consumption.(Zhao 1977:232.)

Mechanized weaving (foreign and domestic combined) made a smaller, though certainly significant impact, reaching 1/3 of Chinese production and consumption by the 1930s; but since total Chinese consumption rose roughly 40% between 1905/9 and 1932/6, handloom production also increased over this period, even in per capita terms, though it began to decline after 1927. (Zhao 1977: 232, 238.) Longer term trends are less clear, in part because the massive civil wars of the 1850s and 1860s make it particularly hard to come up with a decent baseline for comparisons. It seems probable that total production declined during the exceptionally bad years from 1870-1900 and quite clear that output then began to climb again, continuing until the Second World War.[1] Whether per capita output in 1937 was much above levels that prevailed ca. 1850, before the great civil wars began, is unclear. Trends in handloom production specifically are hard to settle for the same reason. My own sense is that the second half of the 19th century saw a very pronounced decline (due primarily to war, destruction of irrigation facilities needed for cotton-growing, and

1 For various competing scenarios leading to different conclusions about the overall trend form 1870-1937, see Feuerwerker 1995:152-158.

decreasing income/demand, rather than foreign competition) far exceeding the slight net gains of the 1900-1937 period; others have a more pessimistic view of things ca. 1850, and so think the overall decline of handloom production was slight or even non-existent. Handloom weaving also became further dispersed geographically during this period. In part this continued the long-term trend toward geographic dispersion discussed in the previous section, but there was also a new dimension related to foreign trade. Foreign yarn imports (which, being largely exempt by treaty from China's internal transit taxes, could often undersell even raw cotton in areas that did not grow the plant themselves) accelerated this trend. Thus, whatever the net trend in rural cloth production nationwide, there were a number of places that saw modest growth output, while some old centres of production, particularly in the Lower Yangzi and parts of North China, that suffered serious declines.

While handloom production did not collapse under competition from machines, the decline of spinning means that total labour days worked in cotton textile production (spinning required either half or 4/7 of the total time required to turn ginned cotton into cloth, depending on the type of spinning wheel used). A rough estimate suggests a decline of perhaps 20% just between 1905/9 and 1932/6. If my estimates of cotton cloth production circa 1750 are correct (very much an open question), then total labour days worked in handicraft cotton cloth production dropped by almost 60% between 1750 and 1932/6, while China's population probably more than doubled. Even if we accept Xu Xinwu's low-end estimate (which I think I have shown is implausible: Pomeranz 2002, 569-571) for 1750, there would

be a slight decline in total labour days worked over this period.2 An important and at the moment unsolvable problem is what percentage of the vanished labour days were child labour (spinning was often done by girls as young as 9 years old) and/or labour done by people who would otherwise have earned nothing. My guess is that this decline was geographically concentrated in the Lower Yangzi and some parts of North China (principally Western Shandong and Henan).

Meanwhile whatever productivity gains households achieved by no longer having to do their own spinning – and whatever small amount of earnings they lost by not doing so – were far overshadowed by the income they lost from unfavourable price trends. The rice buying power of cloth had declined by probably 35-50% in the century prior to 1860 (Pomeranz 2000 316-26), but now it fell much more further. By 1931, a day's work weaving in Dingxian, Hebei (North China) earned only 5% of what it had in the Yangzi Delta circa 1750:3 and earnings from weaving per piece had, if anything

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2 Hours worked in rural textile production, 1930s vs., 1750s. (20th century data all from Zhao 1977:232-8):
If total handloom cloth output in 1932/6 is 2,260 million square yards, and 73%, or 1,650 million square yards are produced with machine spun yarn (thus requiring 3 days per bolt), and another 610 require 7 days per bolt, then its 455,000,000 bolts at 3 days per bolt, or 1,365,000,000 labor days plus 168,000,000 bolts at 7 days or 1,176,000,000 labor days for a total of 2,532,000,000 total labor days
And if in 1905/9 it's 1,876 million square yards, but only 24% or 450 are produced with machine spun yarn, requiring 3 days per bolt, while 1,426 are produced with hand-spun yarn, requiring 7 days per bolt, the its 124,000,000 bolts at 3 days a bolt, or 432,000,000, plus 393,000,000 bolts at 7 days a bolt, or 2,751,000,000 labor days, for a total of 3,183,000,000 labor days.
Compare this with my estimates for China ca. 1750. If 1 bolt of cloth = 3.63 sq. yards = 1.45 pounds of ginned cotton. (Huang 2002: 535). If that's correct, then 1,500,000,000 pounds of cotton, minus about 260,000,000 for wadding (Pomeranz 2000: 337) would equal 1,240,000,000/1.45 = 855,000,000 bolts, or 3,104,000,000 sq. yds. This would require 5,985,000,000 labor days – vastly more than in 20th century, but still well within the reach of the population at that time. (Assuming no men at all ever wove of spun, it would require slightly less than ¼ of females working a 210-day year.)
3 Sidney Gamble's surveys in *Dingxian A North China Rural Community* finds that the average price of thread in 1931 was 57 cents per catty, and a spinner made about 12

been a bit higher in the North than in the Yangzi Delta back in the 18th century. In the nearby weaving center of Gaoyang, nominal earnings per piece of cloth fell by 75% just between 1921 and 1932, which, put them far below even the low levels in Dingxian; this partly reflects the large share of Gaoyang's output that went to Manchuria, and thus was adversely affected by Manchurian "independence" in 1931, but it seems to reflect a more general decline as well.[4] Spinning (already very poorly paid in 1750) did not suffer a comparable collapse, and there is some evidence that an improved spinning wheel became more widely used, cutting the amount of spinning time per bolt of cloth; even if we grant that, however, the per day earnings of a woman doing all the tasks to turn ginned cotton into cloth would have fallen almost 80% by 1931. Even if we take the most favourable comparison

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cents of that. He further finds (p. 303) that a weaver earns an average of 30cents for a bolt which was 42 ft X 1ft 2" (priced at $1.80); meanwhile wheat is .076 per jin, and wheat flour .09 per jin (p. 121).
So weaving earnings are .30 for a piece that is roughly 48 sq. ft, which is 5.33 sq. yards, which means1.47 18th century bolts. This makes 4 jin of wheat for 1.47 bolts or 2.7 jin of wheat per bolt, or 1.9 jin of rice per bolt. By contrast a mid-18th century weaver would earn 30-46 catties jin of rice per day (Pomeranz, "Beyond the East-West Binary," *Journal of Asian Studies* 61:2 (May 2002), p. 561). Even a woman who had to do all the work of spinning, weaving, etc herself would have earned about 6 jin of rice per day (n 561)
A 20th century spinner, meanwhile, if she earns 12 cents a day, earns 1.6 jin of wheat, or the equivalent of 1.1 jin of rice per day (whether converted by caloric or price methods). So the differential between weaving and spinning has shrunk to less than 2:1. versus somewhere between 40:1 in the 18th century.
Total production of a bolt from raw cotton to cloth earned 42 jin of rice over 7 days; now it's 1.9 for a day's weaving, plus 1.1 for each of 3 days spinning, plus about the same for the other 2 days, which would give you 7.4 jin over 6 days or 1.24 per day.
4 For the size of a bolt of the *yongj* cloth woven in Baodi and Gaoyang see H.D.Fong, *The Growth and Decline of Rural Industrial Enterprise in North China* (Tianjin: Nankai University Institute of Economics, 1936), p. 65; for earnings per bolt see pp. 46, 68, 69. For the Manchurian problem, see p. 61. By comparison, most of Dingxian's exports went to the Northwest, which was not as severely affected by fighting until later (Sidney Gamble, *Ding Xian: a North China Rural Community* (Stanford University Press, 1954), pp. 304, 308-9. Even 1923 earnings in Baodi (p. 46) seem to have been well below the 1931 Dingxian levels when adjusted for the size of the piece of cloth woven, though I have not been able to find 1923 Diangxian data, or any comparable same-year data on food prices or on the amount of work that went into each piece of cloth.

– assuming that an adult woman in 1750 had to do all the stages of textile production herself and use the inferior spinning wheel, and comparing her to a woman who could buy yarn and do only weaving in 1931 – per day earnings would be down by just under 70%. (For details of the calculations, see Appendix).

Such a sharp decline raises a number of questions, many of which are beyond the scope of this paper and conference. Many that do seem relevant have to do with the position of weaving as a skilled occupation for rural women. The 1931 weaving earnings cited above were below those in some unskilled trades --women sorting pig bristles earned slightly more per day in the same year in the same county (Gamble: 311) – though they were still probably higher than day wages for women in agriculture (which was rare in this region, anyway). If this situation was prolonged, one would expect it to have significant implications sooner or later for the cultural prestige of weaving, its place as the ideal form of "womanly work" and ticket to a good marriage, perhaps on the value attached to foot-binding, and on relations among the generations. (The difference in value between a day's weaving and a day's spinning had been on the order of 50:1 in 1750, and was now less than 2:1.)

At the same time, emerging factories for cotton textiles largely drew on the labour of young women, just as rural production had – but not, for the most part, on the same biological individuals. Spinning mill workers in Shanghai came very disproportionately from the very poor and disaster-prone Subei region, which produced almost no textiles, and in which women tended to work in the fields. Those who did not come from Subei (and tended to get the slightly better jobs in the mill) were either natives of the mill districts themselves, or, after 1930, from silk-producing areas devastated by the Depression. Statistics suggest that child labourers (under 15) were a

very small percentage of the workforce after roughly 1920, though they figure prominently in eyewitness accounts; to what extent this represents a reporting bias among observers and to what extent it represents child labourers being kept off the official work rolls is unclear. Weavers in Shanghai factories – who earned a good deal more than spinners – were often women who had learned this skill in rural households, and were among the relatively few employees likely to come from relatively prosperous Delta districts that had long produced cotton cloth (e.g. Changzhou). This was perhaps the one way in which weaving skill might still provide a ticket to upward mobility for a peasant's daughter – at least in this region. Even for spinning positions, many mills insisted on basic literacy, suggesting an above average "quality of labour," despite the youth and poverty of many of their workers.

It seems less likely, however, that the mills did very much to increase the human capital of their workers once they hired them. Though a very few mills outside of Shanghai supervised their employees' off-work hours closely and enrolled them (like it or not) in instruction which aimed to make them better wives, mothers, and citizens – a model well known from Japan – this was rare even in those cases, and I know of no cases in which such measures were adopted in pre-1945 Shanghai. (Women recruited from the countryside by labour contractors were often housed in dormitories, but the dormitories were run by gangsters, not the mills, and were purely for control, not education of any sort.) An apprentice system, begun after 1945, had a more serious educational component, but did not last long enough to be very significant. (Honig 1986:78-114.) Shanghai textile mill workers appear to have remained in Shanghai their entire lives; mills elsewhere often employed women who expected to return to their villages, or who commuted daily from their villages while working in the mill, but once women entered Shanghai

mills they appear to have stayed in this industry (though often moving from mill to mill) past marriage, and for as long as they continued to work (Hongi; Cochran; Köll). Unlike handicraft textile production, which was often favoured over farm work in part because it was consistent with culturally-prestigious bound feet and relative female seclusion, mill work required the ability to stand and walk for long hours, and – except for the very few companies that had dormitories for their unskilled female workers that the firms themselves managed (on the Lowell or Osaka model) such women were considered to be out in public to an extent that raised questions about their morality and potentially their marriageability. Clearly workers in the mills learned some skills, which were coveted by those with even grimmer prospects – as shown by the fact that some young women paid bribes to sneak into the mills and work unpaid for a while, while learning the trade – but there is reason to doubt that there was much spill-over of human capital acquired in the mills to other sectors.

5) ca. 1949-1978:

The communist revolution rapidly transformed the textile sector. Rural weaving and what was left of rural spinning were almost completely destroyed as a matter of conscious policy (in part by a state near-monopoly on the purchase of raw cotton). New rural industries were created, but for the most part they used little female and child labour, so women were largely restricted to agriculture, agricultural sidelines (e.g. raising chickens) and housework. Urban textile mills, on the other hand, grew rapidly. Total cotton textile output recovered to pre-WW II levels by 1952, and then grew about 150% from 1952-1974 (Zhao 1977:240, 259); that output was now overwhelmingly from power looms, while handlooms had still accounted for about 2/3 of production on the eve of the war. Textile mills, heavily

concentrated in Shanghai at the time of the revolution, were increasingly dispersed to many cities. In some cases, the urbanization of textile production also involved the masculinization of weaving, though spinning seems to have remained predominantly female.

Though textile mills were not a particularly high priority for a regime obsessed with heavy industry, mill workers nonetheless partook in the general privileges of urban residents, including secure employment, guaranteed housing, health care and retirement, education for their children, etc. As was the case for urban industry generally in this period of Chinese development, these investments in greater skills and better lives for urban workers were largely financed by the setting of fixed prices that effectively transferred wealth from the countryside to the cities.

Efforts to improve productivity in textiles during period focused on disciplining the workforce (there was very little technological change, even once textile machinery elsewhere began to change rapidly in the 1960s) -- there appear to have been some gains realized through this during the 1950s, but no further gains thereafter. (Zhao 1977) Workers did not rotate among multiple tasks. Little effort was made to develop export markets, though China quite likely would have had a comparative advantage in textiles.

6) Since 1978:

Cotton cloth output in 2002 reached 32.3 billion square meters (34.6 billion square yards), roughly quadruple the level of the mid-1970s. And while the reform era has seen a striking rebirth of rural industry, including many related to textiles (e.g. sewing, embroidery), but the work of turning cotton into yarn and then cloth remains overwhelmingly urban. The term “urban,” however, does hide an important locational shift, as cotton textile

production has moved sharply from major metropolises (especially coastal ones, with the country's highest land and labour costs) to smaller cities and towns. There have also been major shifts in ownership, with many state-owned firms being sold off or turned into public-private partnerships, and many new private firms started. In addition, China's textile firms have made major efforts to capture overseas markets (largely ignored in the 50s-70s and still representing only12% of cloth and 5% of yarn produced) adding to cost-cutting pressures. Many firms now rely heavily on rural migrants (some fully legal, some not) for the bulk of their work force, though state firms, at least, have tended to maintain a small group of experienced and urban-born workers in the more skilled jobs. The guaranteed housing, medical care, etc., that once accompanied urban factory employment have largely disappeared. Work in the mills has speeded up considerably – partly the result of the introduction of new technology, but also the imposition of tighter discipline and a turn to piece rates. Workers tend more machines each than they used to, and the machines move faster/ (Zhao and Nichols 1998: 78-90). Workers continue to be largely female, and there is a renewed trend towards hiring of teenagers, particularly among the lower-paid rural migrants.

In some cases the rural industrial boom that began in the 1970s has built on the accumulation of skills among urban workers during the previous period. It has been quite common, for instance, for a group of linked rural firms to jointly hire machinists from urban factories to provide technical assistance, or for rural firms to receive such help as part of sub-contracting arrangements with urban factories. Something similar may have occurred in the burgeoning rural needle trades, too, though I have not come across examples. Since cotton cloth and yarn production has not relocated to the

countryside, there presumably has not been much transfer of skills from those factories to the countryside.

In factories (whether public, private, or mixed) that employ both local workers and rural migrants it is generally true that some percentage of profits are directed (through taxes or direct donations) to subsidize local social services, including education and public health.[5] Since many textile plants do employ both kinds of workers, this is presumably true of them, too, though relatively low profit margins in this industry may impose some limits. Thus rural migrants who work in the mills without becoming permanent residents – and who are paid less, and acquire fewer skills – are presumably subsidizing the acquisition of human capital by permanent residents. This is particularly true when – as seems to generally be the case with the young women on the lower rungs of the textile industry – the migrants come without their families. On the other hand, remittances sent by those women to their home villages do often seem to enable other families to remain in school longer or to start small businesses. The extent of these benefits to the women's natal villages is a subject of debate. (Rozelle, Hare.) From a historical perspective, if these women do return to their villages (as they are supposed to) and marry. they might well resemble their counterparts in the early Japanese textile industry more than their predecessors in China, who tended to remain in the cities once there.

5 To some extent, of course, any firm paying taxes does this, but it appears that more is often expected of firms that are not giving all their jobs to local residents.

Part Two: Textiles, Division of Labour and the Conditions of Women

This section reviews some of the same history as above, but from a different perspective. For one thing, the focus is less on human capital as we would see it, and more on a subject-centred view, trying to understand whether participation in various kinds of work was helping women lead what *they* might have considered better lives. Some of the criteria would no doubt be common to them and to us – health, longevity, consumption levels, etc. – but others would not be; there is considerable evidence, for instance, that large numbers of women over many generations regarded being able to have bound feet and to spend the vast majority of their time within their family's courtyard as goals to aspire to, while we would see this as limiting both their capacities and their autonomy. To the view that their growing involvement in textile work over the centuries did generally better the lives of women in these subject-centred terms --an argument made perhaps most aggressively by Li Bozhong – I will frequently counterpose arguments – probably best made by Mark Elvin – that the growth of female textile production generally represented a serious additional burden for women, while the extra income this work generated either was insufficient to compensate them for what they lost or was largely enjoyed by others.

Despite the contradictions that seem to exist, scholarship does clarify one important point: the complexity of various situations in time and place indicates that if we wish to understand how the textile economy affected those who worked in it directly or indirectly, the family and the individual cannot be sharply counter-posed. The binary of family versus individual tends to force us in directions that research with a narrow temporal or spatial scope might support, but that falls apart when other times or places are considered. It may be too simplistic to believe that for women, a given shift in the gendered division of labour either was compensated by increased

autonomy *from* the family (see the following discussion of Stockard's work, for example), or represented increased exploitation *by* the family. [6]

Two Contrasting Visions

In two provocative papers, Mark Elvin has argued that the Yangzi Delta prefecture of Jiaxing experienced continuing growth and a rising material standard of living in the late empire, but at the cost of increasing environmental fragility and overwhelming work burdens for women. .[7] He also suggests that under the stress of ecological/economic necessity, the "traditional" gender division of labour broke down. Women, he argues, became increasingly heavily involved in farming as part of highly labour-intensive strategies to cope with an environmental and demographic crunch; they also became more involved in buying and selling, and various other activities in public. They paid for this, however, with work lives so demanding that their mortality rates increased. By contrast, Elvin considers two frontier prefectures—Guiyang in Guizhou and especially Zunhua, near the Great Wall in Northern Zhili—where people pressed less heavily on the environment, material life was more spartan, and women were much more confined but lived considerably longer.[8] Using two different methods, Elvin

[6]This is, for instance, very much the orientation of Gates, Hill, "*China's Motor: A Thousand Years of Petty Capitalism* (Ithaca: Cornell University Press, 1995)..

[7] In saying that the material standard of living rose despite these other problems, Elvin differentiates this position from the "involutionist" position, which posits that rising workloads merely insured bare survival, and which now seems untenable. See Pomeranz, Kenneth. "Beyond the East-West Binary: Resituating Development Paths in the Eighteenth Century World" *Journal of Asian Studies* 61:2 (May, 2002): 539-590, for one refutation; Elvin, Mark. Review of *The Great Divergence* in *China Quarterly* 167 (September, 2001): 749-753, p. 749 for a strong statement by Elvin agrees that Chinese living standards were indeed quite high in comparative perspective even as late as the late 18th century.

[8]Elvin, Mark, "Blood and Statistics: Reconstructing the Population Dynamics of Late Imperial China from the Biographies of Virtuous Women in Local Gazetteers," in Harriet Zurndorder, ed., *Chinese Women in the Imperial Past* (Leiden: E.J. Brill, 1999): 135-222,

comes up with life expectancies for Guiyang women of 32.0 or 30.4; a remarkably high 50.0 or 48.1 for Zunhua; and a dismal 24.5 or 18.3 for Jiaxing (Elvin himself says that the last number is implausibly low.)[9] These estimations are subject to large errors, but there is no particular reason that those errors should affect relative longevity across these prefectures.

Li Bozhong sees a very different late imperial Jiangnan, in which an improving material standard of living went along with generally improving or stable life expectancies for both males and females (except perhaps for newborns, given the importance of infanticide for population control in his story). Both men and women worked more, but this represents a benign decrease in "underemployment." And where Elvin sees the "traditional" gender division of labour breaking under new stresses, Li argues that it was not *until* the Qing (and at first only in Jiangnan), that "man ploughs, woman weaves" came to describe the lives of ordinary families as well as their aspiration. Consequently, though the phrase "husband and wife work together" (*fu fu bing zuo*), a term so elastic that it could fit almost any work routine—had once been as proverbial as n*an geng nu zhi*, rhetoric now shifted to match changed realities, and *fu fu bing zuo* largely disappeared.

I have suggested elsewhere that such a shift might have been partly a matter of more families feeling they could "afford" to keep women sequestered amidst the rising incomes of the high Qing,[10] but Li emphasizes economic efficiency, arguing that improved techniques for farming, sericulture and rural textile production made all three kinds of work more

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pp. 4, 8-19.Elvin has since extended some of these arguments in his book *The Retreat of the Elephants* (Yale UP 2004), but I have not yet had the chance to update my notes to correspond to this slightly different version.

[9]Elvin, "Blood and Statistics," p. 142.

[10]Pomeranz, Kenneth. *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton: Princeton University Press, 2000), p. 249.

skilled and more specialized. As quality requirements for marketable cloth increased, and as more silk-reeling moved from homes into specialized sheds near market towns, the women involved also ceased to help in the fields.[11] Thus economic growth was associated with better lives, greater skill levels, a *sharper* gender division of labour, and a mixed picture for sequestration (more women working away from home, but also more working indoors instead of in the fields, and probably more footbinding). And while Li focuses on Jiangnan, he suggests that as several other areas of China began their own "proto-industrialization," they moved in similar directions. Interestingly, although the early Qing references to rural cotton textile production in Shandong collected by Xu Tan often refer to both men and women spinning and weaving, later quotations mention only women.[12] This cannot represent the literal truth—we know that some North China men wove and even spun during slack periods even during the Republic—but it may indicate a trend in *normative* gender roles that tracked what Li describes for Jiangnan in an earlier period.[13]

Despite their differences, these competing perspectives both rely on a trans-cultural logic of income maximization under certain largely physical constraints—and ground at least partial explanations of cultural change in

[11]Li Bozhong. "Cong 'fufu bing zuo' dao 'nan geng nu zhi'" (From "Husband and Wife Work Together" to "Man Plows, Woman Weaves"). *Zhongguo jingji shi yanjiu* 11:3 (1996): 99-107; Li Bozhong. *Agricultural Development in Jiangnan, 1620-1850* (New York: St. Martin's Press, 1998)*;* Li Bozhong. *Jiangnan de zaoqi gongyehua* (Proto-Industrialization in the Yangzi Delta) (Beijing: shehui kexue wenxian chubanshe, 2000).

[12]Xu Tan. *Ming Qing shiqi Shandong shangpin jingji de fazhan* (The Development of a Commodity Economy in Shandong Province During the Ming-Qing Period) (Beijing: Zhongguo shehui kexue chubanshe, 1998), 89-92.

[13]Francesca Bray has, however, suggested an almost precisely opposite shift on the level of rhetoric and representations: one in which *men* became more prominent in representations of weaving over the course of the late empire. She has not denied that actual weavers became more female over time. See Bray, Francesca, *Technology and Gender: Fabrics of Power in Late Imperial China* (Berkeley: University of California Press, 1997), 239-252.

that logic. Both agree that labour effort per person increased, and that women's work producing for both local and long-distance markets became more important—though in different ways. Li argues that women's earnings increased; Elvin does not address that point, but argues that every bit of income became increasingly essential as non-market sources of security disappeared. Both assume that deliberate fertility control was important, though they differ on how much "population pressure" there was. And both agree that the rigidity with which male and female spheres were separated (understood both in terms of space occupied and tasks performed) is a separate matter from the material welfare of women. Indeed both suggest that these things moved in opposite directions. While we might expect that women's material welfare and the flexibility possible for them would move together—either because greater freedom to move across space and undertake varied tasks will give enable people to help themselves or because an increase in the importance of somebody's earnings to their family will make others more solicitous of them, and/or allow them to make more claims on the family pot—a different logic seems to have animated the late imperial Chinese family system.[14] Apparently norms of female seclusion were powerful enough to demand adherence when a family's resources allowed them to do so, thus corresponding with increased wealth and material benefit for women.

[14]Much of my sense of the logic of that system is drawn from Skinner, G. William. "Family Systems and Demographic Processes," in David Kertzer and Tom Fricke, *Anthropological Demography: Toward a New Synthesis* (Chicago: University of Chicago Press, 1997): 53-95.

Men, Women, and Household Economy in Late Imperial Jiangnan

Some Chinese women have produced for the market since ancient times, but a distinct female role in production for use beyond the household began receiving more attention with the rise of the mid-imperial textile economy which often emerged from state demand for specific in-kind contributions.[15] (In other cases, estates forced the wives and daughters of their bondsmen to weave, so that the demand was again involuntary and in-kind;[16] for many formerly bound households that became tax-paying free commoners after 1500, it may have seemed natural to instead render cloth to the state.) By the end of the Ming, state demand for rural cloth had been largely absorbed into cash taxes, but selling silk and cotton textiles had become crucial for many rural households, especially in Jiangnan; these households ranged from very poor families who sold cloth to eat through the much more prosperous for whom "survival" meant maintaining certain appearances and behavioural standards.

A crucial, often overlooked point is that women's earning power appears to have been particularly volatile—but became less so over the late imperial period. In good periods, rural textile producers might even out-earn their farming husbands, and if one smooths out short-term fluctuations in prices it appears that in "the 18th century" their earnings came surprisingly close to men's. Even a woman who transformed raw cotton into cloth

[15]Nishijima Sadao. "The Formation of the Early Chinese Cotton Industry," in Linda Grove and Christian Daniels, eds., *State and Society in China: Japanese Perspectives on Ming-Qing Social History* (Tokyo: Tokyo University Press,1984): 17-78, pp. 24-5, 30-33; Tanaka Masatoshi. 1984. "Rural Handicraft in Jiangnan During the 16th and 17th Centuries," in Linda Grove and Christian Daniels, eds., *State and Society in China: Japanese Perspectives on Ming-Qing Social History* (Tokyo: Tokyo University Press, 1984): 79-100, pp. 87-89.

[16]Nishijima, "Early Chinese Cotton Industry" p. 62; Walker, Kathy LeMons, *Chinese Modernity and the Peasant Path: Semicolonialism in the Northern Yangzi Delta* (Stanford: Stanford University Press, 1999), pp. 37-39.

completely on her own out-earned male agricultural labourers, though not tenant farmers. A woman who could mostly weave while her children or an elderly mother-in-law handled less demanding tasks would earn much more, though precise figures depend on how we value the labour of young or elderly family members.[17] On average, rural women making cloth were certainly closer to matching their husband's earning power than they had been when farms were larger and women had helped cultivate them,[18] and much closer to their husbands in earning power than were English women of the same period.[19]

But people—especially poor people—did not live "on average" in "the 18th century," but from year to year. Consequently, I have estimated the rice-buying power of a piece of middle-grade cotton cloth for selected years;

[17] For the relevant arithmetic, see Pomeranz, "East- West Binary," pp. 548-51, 558-62, and Pomeranz, Kenneth, "'Facts are Stubborn Things': More on Eighteenth Century Jiangnan's Economic Performance in Comparative Perspective," *Journal of Asian Studies* 62:1 (forthcoming February, 2003)

[18] Li, *Agricultural Development,* pp. 141-151 those people who see the move into textiles as a case of decreasing returns per labour day, e.g Huang, Philip, *The Peasant Family and Rural Development in the Lower Yangzi Region, 1350-1988* (Stanford: Stanford University Press, 1990)*;* Huang, Philip, "Development or Involution in Eighteenth Century Britain and China?" *Journal of Asian Studies* 61:2 (May, 2002): 501-538; Brenner and Isett, "England's Divergence") have thus made a basic mistake, confusing a comparison to the returns to grain farming done by men and textile production done by women with the real issue, which is the earning power of the same people (in this case women) as they moved from one task (farming, in which they had been much less productive than men, as reflected in their much lower wages) to cloth-making. See also Pomeranz, "East-West Binary," Pomeranz "Facts are Stubborn Things."

[19] For the China/Europe comparison, see Pomeranz, Kenneth, "Women's Work, Family, and Economic Development in Europe and East Asia: Long-term Trajectories and Contemporary Comparisons," in Giovanni Arrighi, Hamashita Takeshi, and Mark Selden, eds., *The Rise of East Asia: Perspectives of 50, 150 and 500 Years* (London: Routledge, 2003).

the results are *very* crude, but give some sense of how volatile women's earnings were (1750 = 100):[20]

1634	110
1644	50
1654	20
1664	300
1674	67
1684	77
1694	47
1750	100
1780	88
1800 *	133
1835	44
1840 **	48-68

* See footnote 20
** depending on which price estimate is used for raw cotton

Even this shaky data yields some reliable inferences. First, the rice-buying power of cotton cloth did not track that of silk (which rose modestly in the 18th and early19th centuries, and sharply after 1860);[21] thus, my conclusions here do not necessarily represent all textile work, much less all women's work. Second, changes in the rice-buying power of cotton cloth were largely driven by rice prices, which fluctuated much more than cloth

[20]Data drawn from Zhang Zhongmin. *Shanghai cong Kaifa dao Kaifang, 1369-1843* (Shanghai from Founding to Opening) (Kunming: Yunnan renmin chubanshe, 1988); Wang Yeh-chien, "Secular Trends of Rice Prices in the Yangzi Delta, 1638-1935," in Thomas Rawski and Lillian Li, eds., *Chinese History in Economic Perspective* (Berkeley: University of California Press, 1992): 35-68; Kishimoto Mio, *Shindai Chūgoku no Bukka to Keizai Hendō*. (Prices and Economic Change in the Qing Dynasty) (Tokyo: Kenbun shuppan, 1997). 1840 data from Pomeranz, *Great Divergence* 323-326..

[21] On ratios of silk to rice prices see Zhang Li, *Peasant Household Economy under the Influence of International Trade, Industrialization, and Urbanization: A Case Study of Wuxi Peasants' Response to Economic Opportunities, 1860s-1940s*. Ph.D. diss. (University of California, Los Angeles, 2002), pp. 111-118 ; the pre-1860 data is extremely thin, but nonetheless suggestive.

prices until about 1700, and were still somewhat more volatile thereafter.[22] Raw cotton prices were also volatile, and would complicate the picture further, since some weaving families produced their own raw cotton while others bought it. For the most part, though, raw cotton prices seem to have moved enough in sync with rice that they would usually reinforce both the long-term trends and the short-term fluctuations.[23] Third, because rice prices were more stable after about 1700 (because growing and better-organized long-distance imports made local harvest fluctuations less crucial), so were female earnings. The volatility of real earnings from cotton textile work probably also declined over the very long haul, beyond the 200 years reflected in these data, as markets became better developed. This would be consistent with recent literature suggesting that rather than a "Song economic revolution" followed by long years of stagnation or decline and then a new late Ming boom, the Song-Yuan-Ming period may have seen a much more gradual diffusion and elaboration of institutional and technical

[22]See Wang, "Secular Trends," p. 50 for a graphic depiction of annual deviations from the 31 year moving average of rice prices, which decreases markedly after about 1700. This accords with a general sense that this was a period with fewer of the massive disorders that would send prices wildly up or down.

[23]For spotty data on raw cotton prices at Shanghai see Zhang Zhongmin, *Shanghai*, pp. 205-6. From the late Ming until the late Kangxi period, general trends in raw cotton prices seem to map those for rice fairly well, so that they would make the fluctuations even wilder, but in the same direction. In mid-century, raw cotton prices, like those for rice, seem to have shown far less pronounced swings amidst a general rising trend (stronger for cotton than for rice).After 1790, rice prices were roughly flat for 10 years, doubled over the next five, and then fluctuated modestly around that new, higher price until the Taiping Rebellion. Cotton prices hit several extremely high spikes between 1790 and 1810 (as much as 6 times the usual price), but in general seem not to have shown much of a trend: Zhang Zhongmin says that on the eve of the Opium War they were roughly double early Qing prices, which is where Kishimoto's scattered data (*Shindai Chugoku no Bukka,* p. 139) suggest they had gotten by the 1790s. This bump in raw cotton prices would probably depress the surprisingly high real earnings for weavers estimated above for 1800, bringing that year back into line with the general downward trend after 1750, and strengthening further the point that short-term fluctuations became less important in the high Qing.

changes that first emerged in the Song.[24] If we accept this, at least provisionally, it might also offer another perspective on the changing role of textile earnings in the family budget. Insofar as a great deal of rural textile production was originally either for home use or to meet an in-kind demand from tax-collectors or estate-owners, even huge fluctuations in the rice-based value of that cloth would not have affected the producers much. But once many rural families sold their cloth, prices became crucial, making economic life painfully unstable until markets became more predictable.

Interestingly, a recent book on North China suggests in passing (and unfortunately, with limited evidence) that that region also experienced an intermediate stage: one in which earnings from marketed textiles were particularly important in funding rural families' ceremonial expenses.[25] This would be interesting in the present context because ritual expenses were large but irregular and thus perhaps well-matched to an unstable income source, at least to the extent that one could wait for years in which cloth sales had been lucrative to hold weddings. Such a deployment of women's textile earnings would have kept them culturally distinct from men's—as some have suggested they were when textile production was tied to state demand.[26] There might also be some continuity here with the observation that women continued to produce at least some of the textiles they brought with them into marriage, even once such goods were easily purchased for cash.[27]

It is also interesting in this connection that documents referring to female infanticide in Ming /Qing Jiangnan (and other parts of East and South

[24] See Von Glahn, Richard. "Introduction" in Paul Smith and Richard Von Glahn, eds., *The Song-Yuan-Ming Transition* (Cambridge: Harvard University Press, forthcoming).
[25]Xu, *Ming Qing Shandong*, pp.89-90.
[26]e.g. Bray, *Technology and Gender*, pp. 186-96.
[27]Bray, *Technology and Gender*, pp. 188, 254.

China) all emphasize the high price of marrying off daughters, rather than the cost of supporting children more generally.[28] But for now we can only speculate that Jiangnan also experienced such a transitional period in which textile sales became crucial to rural families' *social and cultural* reproduction/subsistence, but not yet to their biological survival. At any rate, many rural families had become dependent on textile earnings to purchase food by the end of the Ming, when those earnings were still highly irregular. Given this instability—and since new farming techniques required precise timing[29] -- it is not surprising that Li and Elvin see a late Ming "de-gendering" of work, with both men and women switching among tasks in a scramble to make ends meet as rewards for different kinds of work changed.

Indeed, one would hardly expect a stable gender division of labour (except perhaps among the rich) while economic returns to the epitome of approved "womanly work" varied as wildly as they did in the 16th and 17th centuries. Rigidity about male and female tasks was dangerous, in that there was too much to lose. The more predictable textile earnings of the 18th century would have made a firm division of labour less risky, while smaller farms meant that losing women's farm labour involved little sacrifice. Forgoing potential income from peddling, etc., however, would have remained a genuine sacrifice to cultural respectability, though a generally affordable one during this relatively prosperous period. Thus Elvin's claims about a "de-gendering" of work and technology amidst economic and

[28]For the Ming, see the citations in Chang Jianhua, "Ming dai niying wenti chu tan" (A preliminary inquiry into infanticide in the Ming Dynasty). (Paper presented at Nankai University Conference on Demographic Behavior and Social History, May 2001) 1-4; for the Qing, Lee, James, and Wang Feng, *One Quarter of Humanity: Malthusian Mythologies and Chinese Realities* (Cambridge: Harvard University Press), pp. 47-48, 60-61.
[29]Elvin, Mark, "The Unavoidable Environment," (Paper presented at All-UC Economic History Group Meeting, Davis, CA, October, 1999), pp. 42-3; Li, *Agricultural Development*, pp. 68-75.

environmental stress may hold for late Ming and very early Qing Jiangnan, while Li's picture of greater investment in specific skills and a sharper gender division of labour would hold for the high Qing – and this appears to generally fit the textual evidence. While Elvin cites material from late 19th century gazetteers saying that in Jiaxing and Shanghai even young married women conducted many transactions in public (much to the consternation of the authors), he notes that most of these materials are copied from earlier editions; they probably refer to the 17th century.[30]

There are thus grounds for thinking that while the late Ming breakdown in the Confucian *sexual* order probably did not extend beyond specific elite circles, as Matthew Sommer has argued,[31] other parts of the gender system may have been visibly breaking down even among peasants, at least in the closely-watched Delta region; this may well have led people not used to seeing respectable women in public to infer a broader breakdown of mores. At the same time, a firmer gender division of labour in the high Qing suggests that commercialization per se need not erode "traditional" gender roles. There are parallels here to Richard Von Glahn's observation that in 15th-17th century Jiangnan, the god of wealth was seen as subversive of the sexual order—being not only a prolific seducer but a rapist—and his economic favours as huge but fleeting (and generally conveyed through women), while in the 18th century he assumed a stabilizing and beneficent guise. Von Glahn himself links this religious

[30]Elvin, "Blood and Statistics," p. 151. Lu Hanchao, "Arrested Development: Cotton and Cotton Markets in Shanghai, 1350-1843," *Modern China* 18:4 (October, 1992): 468-499, pp. 481, 483, cites sources from the 18th and 19th centuries indicating that in this period male household members handled the market transactions.
[31]Sommer, Matthew. *Sex, Law, and Society, in 18th Century China* (Stanford: Stanford University Press, 2000), pp. 1-2, 15-16.

change to the greater stability of Qing markets, though his focus is largely on monetary affairs.[32]

But can we describe 18th century textile producers as relatively prosperous and secure, except in contrast to the undoubtedly wild 17th century? Some historians, on the contrary, see this as an era of painful population pressure, in which the returns to women's labour were extremely low, perhaps even below subsistence. Relative predictability at those levels would hardly seem likely to support a more rigidly gendered division of labour (unless all other female activities earned even lower returns). My other scholarship addresses this question; some important points now seem well established.

First, it is no longer possible to claim that the returns from textile production in 18th century Jiangnan were at a bare subsistence level. The case for that proposition turns out to rest on faulty math and other errors, and at least 3 different methods of calculation converge on a common result: one which suggests that women in mid 18th century Jiangnan who engaged proportionately in all parts of the process of turning raw cotton into cloth would earn about enough per day to provide rice for a bit over 4 adult person-days.[33] To the extent that an adult woman could delegate spinning, cleaning, etc., to others and concentrate on weaving, she could make much more, since weaving paid over 30 times as much as those tasks. But—probably because weaving paid rather well and spinning quite poorly—there appears to have been relatively little yarn for sale; concentrating on weaving generally required having kin who would provide yarn. Despite some

[32] Von Glahn, Richard, "The Enchantment of Wealth: the God Wutong in the Social History of Jiangnan," *Harvard Journal of Asiatic Studies* 51:2 (December, 1991): 651-715, pp. 691-694, 697-698, 701-714.
[33] Pomeranz, "East-West Binary," pp. 547-550, 561.

exceptions,[34] the market did not generally replace the family (or extended family) in organizing this part of the division of labour. Thus as previously noted, it is somewhat misleading to think of the value of "a woman's labour" outside of her particular family structure: teenage girls or an elderly mother-in-law, for instance, might be economically quite valuable insofar as they could supply yarn for their 35 year old mother/daughter-in-law to weave, but become economic liabilities overnight if that woman died and nobody else in the family could weave.

Sometime after 1750, the rice-buying power of low and medium grade cloth began to decrease. But this was decline from a fairly high level, and it was probably quite some time before it affected women's earnings enough to undermine Jiangnan's basic pattern of relative prosperity and a sharply gendered division of labour. That problem would seem more likely to belong to the late 19th and 20th centuries.

The average quality of both the cotton cloth and the silk produced in Jiangnan appears to have improved over the first two thirds of the Qing.[35] Thus the above-noted downward trend in the rice-buying power of a fixed quality of cloth after 1750 does not necessarily represent the earning power of actual weavers; to the extent that they switched to higher qualities of cotton cloth (which often sold for roughly twice as much as middle-grade cloth, without taking twice as long to make), rural Jiangnan weavers would have maintained more of their earning power—both absolutely and relative to those doing other tasks—than these numbers suggest. "Higher quality" did not always refer to more durable or comfortable cloth: often this was more a matter of styles, colours, and fashion trends. The important point is

[34] Li, *Jiangnan de zaoqi gongyehua,* pp. 63, 71, 76, 82-83.
[35]Li, *Jiangnan de zaoqi gongyehua,* pp. 53-57, 60-61, 63-65,81-82, 84-85.

that they fetched a higher price and to the extent that weaving in each style was a local specialty, these gains may represent an investment in highly specific skills. On the other hand, it leaves us in some doubt about how much of the higher prices were actually captured by dyers and other male townspeople. And to the extent that this proliferation of market niches increased control of the cloth trade by outside guest merchants who tied producers to style-sensitive markets, the increasing marginalization of local marketing (some of which, as we saw, had been done by women) might represent another instance of earning power being at odds with flexibility in roles.

Meanwhile spinners, whose product was much more generic, had less chance to buffer unfavourable price trends. While price data for yarn is extremely fragmentary, it seems very unlikely that prices could have risen enough for spinners to maintain their real incomes between, say, 1750 and 1850. Thus, while Li may be right that mid-18th century spinners were somewhat better off than some other scholars have suggested,[36] I am sceptical of his claim that spinning was a consistently viable way for adult women to support themselves. Yet there still needed to be almost four hours of spinning for every hour of weaving. Who did it and why?

Some answers are clear. Many Jiangnan spinners were young girls (or elderly women, no longer strong or dexterous enough for the loom), who had no other way to add to the family income but consumed food. Moreover, most of these girls were providing yarn that their mothers wove

[36]Li, *Jiangnan de zaoqi gongyehua,* pp. 66-71; Pomeranz, *Great Divergence,* pp. 320-322. (The forthcoming Chinese edition corrects some errors in these estimates, but the differences do not affect the basic argument.) See also Lu, "Arrested Development," p. 480. For the best-known statement of the contrary view see Huang, *Peasant Family,* pp. 84-86; its errors are discussed in Pomeranz, "East/West Binary," and "Facts are Stubborn Things."

(not selling the yarn), and so were maintaining an integrated household enterprise which was reasonably remunerative; separate calculations of the value added by each person involved may be somewhat beside the point. When women in their prime spun, it was often for the same reason: to supply themselves with yarn needed for the more lucrative project of weaving. Relatively little yarn was sold, it appears, though more evidence on this point may yet surface.

The small size of the yarn market is somewhat puzzling. Since a woman could make much more money by freeing herself from spinning and doing more weaving, even if she had to pay well above the apparent going rate for yarn,[37] why didn't the price of yarn rise and the amount sold increase? Surely there were families—such as those of widowers with teenage daughters—which could produce yarn but not weave it, and needed extra income. Explaining why such households did not sell yarn is particularly difficult for those scholars who assume that women had few other ways of earning any money, and that most households needed every dime just to survive; but even those of us who take a more sanguine view would have reason to expect a larger yarn market than we thus far found.[38]

With yarn hard to buy it is somewhat artificial to speak of the earning power of an individual textile producer without specifying not only the date and the woman's skill level, but also the familial context. A skilled weaver, for instance, contributed more to her family's income than her 13 year old daughter could, and everyone must have known this; but it must have been equally obvious that this daughter's presence roughly doubled how much weaving her mother could do, and thus added to the family's income almost

[37] Pomeranz, "East-West Binary," pp. 559-562.
[38] Note that in 20th century rural North China there was a large market in homespun yarn, despite returns that were probably as bad or worse than those in 18th century Jiangnan.

as much as a second adult woman could contribute. This is one more reason to take to heart Skinner's observation that a given family system (and economy) does not simply make sons more valuable than daughters, or vice versa: it generates an optimal mix of family members of particular ages and sexes.

Beyond Jiangnan -- and Beyond 1850

Jiangnan not only traded with a larger Chinese economy but also often was seen as a model region, not least in having so much of the female population involved in the "womanly work"[39] of textile production. Efforts were made to encourage fibre production and female textile work elsewhere in the empire. Those making these efforts envisioned moral improvement, increasingly reliable tax payments (thanks to the diversification of families' incomes) and greater economic welfare for the families themselves. Whether because of this or not, there was a great diffusion of commercialized rural cloth production during the Qing, although it was still work done largely by women.[40] There are reasons, then, to expect a recurrence of Jiangnan's evolving gender division of labour, but also reasons to expect differences.

[39]See Mann, Susan, "Household Handicrafts and State Policy in Qing Times," in Jane Kate Leonard and John Watt, eds., *To Achieve Security and Wealth: The Qing State and the Economy* (Ithaca: Cornell University Press, 1992): 75-96; Bray, *Technology and Gender*; and Sommer, *Sex, Law, and Society* for three different, but compatible arguments highlighting the ways in which female attention to textile work (as opposed to either "idleness" or various other income-producing activities) was thought to improve their character and help stabilize the society.

[40]See e.g. Xu, *Ming Qing Shandong,* pp. 89-92 on Shandong. I discuss various possible reasons for this in Pomeranz, *Great Divergence,* pp. 243-251, and in Pomeranz, Kenneth, "Agricultural Labor Productivity in the Yangzi Valley, Japan and England, 1750-1850," paper delivered at International Economic History Association Congress, Buenos Aires, Argentina, July, 2002.

First, in no other area (except perhaps parts of the Pearl River Delta) did commercial textile production become as important to the family budget as in Jiangnan. Nor, I suspect, did any other place rely as heavily on the reputation of its textiles for high *quality.* Moreover, the exceptionally small size of most farms in Jiangnan meant that there was much less reason for women to do agricultural work, in which they could not rival male productivity. Jiangnan may also have been unusual in the extent to which earnings from the production of *low-grade* cloth lagged behind those in farming, since the methods (and thus labour productivity) involved in producing coarse cloth seem to have been fairly uniform wherever this production appeared, while the labour productivity in Jiangnan agriculture was considerably higher than elsewhere. For all these reasons, families in other regions would have fewer economic reasons to focus on very specific female skills and develop as rigid a sexual division of labour as in Jiangnan.

At the opposite extreme from Jiangnan would be frontier zones: sparsely populated areas, often including many non-Han, where woods, marshes, and other unfarmed lands (Elvin's "environmental buffers") could still provide extra resources when crops proved inadequate. Most migrants to these areas, whether on the edges of the Han world or in internal highland areas, were males. The Chinese family system did not allow much migration by single women, either to cities or to peripheries, until 20th century factories with tightly supervised dormitories made this seem possible within the bounds of respectability.[41] The importance of male-only occupations (e.g. logging and mining) on some frontiers, and the real or perceived dangers from restive minorities would only have reinforced the low percentage of

[41]I discuss some of the implications of this in Pomeranz, *Great Divergence*, pp. 248-250. For a very clear treatment of the logic of the Chinese family system explaining this feature in comparative perspective, see Skinner, "Family Systems."

women in these migrant streams. As some frontiers became more securely Han (or more securely settled, in the case of some steep, previously unpopulated highlands), sex ratios would have gradually declined, but one can easily imagine reasons why even frontiers that were filling up quickly would maintain the sharp gender divisions of labour and strong tendencies toward female seclusion that Elvin sees in Guiyang and Zunhua. Where minerals or forest products dominated the cash economy, female production would be largely for home use. Highlands were often first settled during economic upswings by people selling forest products or cash crops to satisfy booming demand in core regions; when the economy slumped, such people often either left or, if they stayed, shifted to subsistence production (much easier once corn and potatoes became widely available).[42] In such situations, so-called "normal" family life might have taken root just as the local economy was becoming less commercial, leaving women focused on domestic production and with relatively little reason to go out. Frontier families (including, or maybe even especially, recently assimilated minorities) may also have favoured female seclusion as a way of demonstrating that they were on the right side of the ethnic/civilizational line.

One interesting exception to such frontier patterns, though, would seem to be the extension of tea planting in the highlands of Fujian and Hunan. Women frequently worked growing tea, often for wages and under the supervision of non-kin. They also breached seclusion in other ways. Robert Fortune reported seeing women, along with children and old men, selling tea seeds at temple fairs, and seeing "housewives"—presumably

[42]See e.g. Leong, S.T., *Migration and Ethnicity in Chinese History: Hakkas, Pengmin, and their Neighbors* (Stanford: Stanford University Press, 1997), pp. 118-123. I discuss one such case in Pomeranz, Kenneth, "Re-thinking the Late Imperial Chinese Economy: Development, Disaggregation and Decline, circa 1730-1930," *Itinerario* 24:3-4 (December, 2000): 29-74, pp. 50-53.

respectable adult women—selling cloth in Fuzhou markets. Shigeta Atsushi cites a gazetteer saying that in the early Qing, both men and women worked as local tea merchants (not just cultivators) in Anhua, Hunan. There is no mention of such activity later, when outside "guest merchants" took over the trade, perhaps paralleling the earlier disappearance of women trading in Jiangnan cloth markets.[43] Moreover, cultural diffusion went both ways: in some places, minority customs that gave women more scope for activities outside the home seem to have influenced regional practices even long after the Han had become dominant.[44] But in general, it seems likely that most late imperial frontier zones were indeed areas of particularly sharp gender segregation and division of labour, at least for Han[45] families. This is quite logical once we see these areas not as zones of particularly intense necessity and pragmatism (on the model of an ideal-typical American "frontier family") but instead as areas where families could meet their limited cash needs from the proceeds of male labour, where the absence of some labour-saving goods available for purchase in core regions might have made women's work within the home particularly time-consuming, and where the continued presence of large numbers of single (and sometimes non-Han) males commonly deemed dangerous might have increased pressures for female seclusion.

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[43]Fortune, Robert, *A Residence Among the Chinese* (Wilmington: Scholarly Resources, 1972) (Original publication 1857), pp. 4, 143, 248; Gardella, Robert, *Harvesting Mountains: Fujian and the Chinese Tea Trade* (Berkeley: University of California Press, 1994), pp. 103-5; Shigeta Atsushi, *Shindai shakai keizaishi kenkyū* (Research in the Social and Economic History of the Qing Dynasty) (Tokyo: Iwanami Shoten 1975), p. 217.

[44]See e.g. Stockard, Janice, *Daughters of the Canton Delta: Marriage Patterns and Economic Strategies in South China, 1860-1930* (Stanford: Stanford University Press, 1989), pp. 170-175.

[45] Some poor lowland women adopted as "little daughters in law" by highland tea pickers might plausibly have been re-categorized as "minority" women in the process.

More important, though—at least numerically—are the long-settled lowland regions that underwent rapid population growth (and/or re-growth after depopulation in the Ming-Qing transition): large parts of Hunan and Hubei, Sichuan, Jiangxi, Guangdong, Shandong, Hebei and Henan, and so on. In many of these places continued population growth in the latter half of the Qing went along with trends that are not easily categorized: trade across macro-regional lines (particularly along the Yangzi and the Grand Canal) often decreased, while *within* some of the same macro-regions, the regional economy diversified and internal trade increased.[46]

In many such regions, cloth production increased sharply as people within the region produced first low-grade and then middle-grade cloth that substituted for goods once imported from Jiangnan. As the process continued, some regions not only substituted local cloth for Jiangnan imports, but also began to sell cloth elsewhere. Yamamoto Susumu has traced this process for Sichuan from the mid-Qing into the Republic. He shows a leap-frog pattern in which areas that began importing cloth from Northern Hunan/ Southern Hubei (which used to buy from Jiangnan before its cloth production increased) subsequently began to produce their own cloth instead, and in some cases then began exporting to other parts of

[46]Pomeranz, *Great Divergence,* pp. 243-6. The long-term decline in trade along the Yangzi may have been even larger than I suggested. If Ch'uan Han-sheng and Richard Kraus, *Mid-Ch'ing Rice Markets and Trade: an Essay in Price History* (Cambridge: Harvard University Press, 1975), p. 77, are right about the scale of the Yangzi Valley rice trade in the 18th century, and Perkins, Dwight, *Agricultural Development in China, 1368-1968* (Chicago: Aldine Publishing, 1969), pp. 116-124 is right about the 1930s, these shipments had declined by a stunning 73% to 82%. Skinner, G. William, "Regional Urbanization in Nineteenth Century China," in G. William Skinner, ed., *The City in Late Imperial China* (Stanford: Stanford University Press, 1977): 211-249, p. 713, n.32 argues that Perkins underestimated the 1930s trade, perhaps quite substantially; but even allowing for that, the decline from 18th century levels would be very large.

Sichuan, which later engaged in its own import substitution, began exporting to still more remote regions, and so on.[47]

It is worth noting that the opening of treaty ports, however many other processes in late imperial history it may have interrupted, only accelerated this one. Qing efforts to promote cotton cloth production were, so far as I know, limited to areas in which it was possible to initiate or extend cotton *cultivation*, creating the needed raw material on the spot; while a few fairly prosperous areas, particularly in Guangdong and Fujian, traded for raw cotton (mostly with sugar) and so began extensive cloth production without cultivating cotton, most of China's poorer regions (where the big population growth was after about 1750) did not.

In some cases, we can explain increased local cloth production in economic terms, as the most lucrative available employment for women (and some men). Most places in the empire were far less productive in agriculture than Jiangnan was, but many, once they began, could catch up quickly in the efficiency with which they produced the cheaper grades of cloth. Thus it quickly became advantageous for them to make cloth themselves, rather than buy it in exchange for grain or raw cotton. If this is correct, rural textile workers outside Jiangnan might have been quite close to their husbands in earnings *per day*, though smaller supplies of cotton and smaller markets (due both to lower incomes and less transportation) would have meant that they worked for money far fewer days than their husbands did (while Jiangnan women probably worked almost as many days for income as their husbands).[48] In such an environment, it would also often

[47]Yamamoto Susumu. "Shindai Shikawa no chi-iki keizai Hatten (Regional Economic Development in Qing Dynasty Sichuan)." *Shigaku Zasshi* 100:12 (December, 1991): 1-31.
[48] See Li, *Agricultural Development*,pp. 150-151; Pomeranz, *Great Divergence,* pp. 101-2 and Xu Xinwu, *Jiangnan tubu shi* (History of Jiangnan Native Cloth) (Shanghai: shehui kexueyuan chubanshe, 1992), pp. 215, 469,472 553 for some estimates of days worked

make sense for men to both farm and do some weaving (unlike in Jiangnan), and this seems to have occurred fairly often.

In other cases—such as parts of Hunan, where the profit-maximizing use of additional labour might have been increased the double-cropping of rice—economics may not explain the growth of cloth production. Instead, cultural preferences may explain why women were kept indoors: foot-binding could be practiced without decreasing women's earning capacity, and textile work supposedly cultivated diligence and other positive values in women.[49] It is tempting to think that at least in the Middle Yangzi, the spread of such social ambitions was originally stimulated by rising prosperity during the 18th century export boom, but it certainly seems to have transcended that rationale. In much of North China, for instance, it is likely that there was a long-term decline in living standards from the high Qing to the Republic, yet female seclusion certainly was prized there.

In all likelihood, then, the general path we see in these densely settled regions differed both from that of Jiangnan and the frontiers. Certainly the growth of population density and of textile production coincided with increased ecological stress. Various "environmental buffers" disappeared as lake sizes decreased and forests disappeared, and in at least one North China case, fuel-gathering—usually a job for women and children—became

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per year in Jiangnan textiles; data for other regions before the 20th century are extremely scarce. On the work year in agriculture (probably no more than 200 labor days per 10 *mu* farm in the mid Qing), see Li , *Agricultural Development*, p.139.

[49]See Pomeranz, *Great Divergence,* pp. 249-250. A precise analysis of how profitable it would have been to mobilize female labor for double-cropping rice would depend, *inter alia*, on a careful breakdown of the tasks involved to see how many (such as pumping water without the aid of an ox, or transporting and spreading manure) were ones in which upper body strength conferred a large advantage – something on which I have been unable to find good information for the Middle Yangzi in this period.

much more difficult.[50] Some people in these areas brought new resources into play—growing peanuts or opium on previously useless land, making "black salt" and related products on the saline old beds of the Yellow and Huai Rivers—but they did so by *commercializing* these previously unclaimed resources, not appropriating them for home use, as Elvin argues that people did with the forest and hillside plants of Guiyang and Zunhua.[51] The gendered division of labour seems not to have become as sharp in other densely settled areas as in Jiangnan; in North China, as we have already mentioned, men wove and occasionally even spun during the long agricultural slack season.[52] The new kinds of production women engaged in mostly involved skills that could be learned very quickly, and so did not promote a sharp division of labour. And for the most part, we see much less of the increased consumption of goods that might have decreased domestic work and left more time for specialized labour that one sees in pre-1850 Jiangnan, and which became more marked in some relatively prosperous 20th century areas as kerosene, matches, and machine-spun yarn made significant inroads.

But neither do we see the de-gendering of previously marked tasks that Elvin sees in Yuan and Ming Jiangnan. Married women may have cut opium plants, cleaned peanuts, and so on, but I know of no references to them personally marketing these or other products in the North. Other new ways that women earned money—e.g. making straw hats and hairnets for

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[50]Pomeranz, Kenneth, *The Making of a Hinterland: State, Society, and Economy in Inland North China, 1853-1937* (Berkeley: University of California Press, 1993), pp. 123-128.
[51]On peanuts, Pomeranz, *Making of a Hinterland,* p.137; on salt and related products, Thaxton, Ralph, *Salt of the Earth: The Political Origins of Peasant Protest and Communist Revolution in China* (Berkeley: University of California Press, 1997), pp. 46-49, 63, 86-8, 113-27, 146-8, 168-77.
[52] Xu Tan, *Shandong shangpin jingji*, pp. 89-90; Gamble, Sidney. *Ting Hsien: A North China Rural Community* (Stanford: Stanford University Press 1968 [1954]), pp. 53, 62.

export—seem to have been entirely contained within the home. There may have been an increase in female field labour and domestic labour, but not, it seems, in public visibility, except perhaps in places (e.g. Northeast Shandong) where large numbers of men were becoming migrants.[53]

As previously noted, imports of foreign yarn in the late 19th and early 20th centuries allowed areas that did not grow cotton to begin making cotton cloth (and sometimes, as noted above, made that yarn even cheaper than raw cotton shipped from elsewhere in China), spreading the process of still further.[54] This, of course, represented a further loss of markets for some of the older centres of cloth production. As best we can tell, most interior regions that lost cloth markets through these mechanisms did not find new niches by producing higher quality cloth the way Jiangnan had in the previous century; instead these regions (and particularly their women) lost an important source of income, sometimes with very serious results.[55] Some rural weavers – probably mostly in coastal areas from the Yangzi Delta down to Gungzhou – did however, find a new market overseas, tapping the desires of a growing overseas Chinese market for well-made goods with a familiar "Chinese" look. [56] (This example fits well into Kaoru Sugihara's more general argument about the importance of culturally-specific markets and intra-Asian trade in helping East Asian producers compete during a

[53] Pruitt, Ida, *A Daughter of Han: The Autobiography of a Chinese Working Woman* (Stanford: Stanford University Press, 1967) is a classic account of a poor woman from precisely this region forced to take on public roles in the very late Qing and Republic.
[54] See, for instance Huang, *Peasant Economy of North China*, p. 134 on Gaoyang.
[55]See Esherick, Joseph, *Origins of the Boxer Uprising* (Berkeley: University of California Press, 1987), pp. 70-72 for examples in North China. The Imperial Maritime Customs *Decennial Reports of the Trade, Navigation, Industries, etc., of the Ports Open to Foreign Commerce in China and Corea, 1892-1901* (Statistical Series of the Inspectorate General of Customs, 1903) describes a similar pattern for the area around Shasi (in the Hunan/Hubei cotton region) which lost many of its Sichuanese markets to imports of yarn.
56 Kraus, Richard, *Cotton and Cotton Goods in China 1918-1936* (New York: Garland Gpress, 1980), p. 121.

period when they often had disadvantages in capital and technology.) Others benefited from the growing Manchurian market (until 1931), where the weight and durability of handloom cloth apparently compensated for whatever disadvantages it had. China's growing urban markets were generally captured by machine-woven cloth, partly for reasons of style; it has also been suggested that in big cities second-hand clothing shops were so ubiquitous that even the poor did not care much about the superior durability of handloom cloth. The rural market – by far the biggest of all – was highly segmented, both geographically and by product type, with many of those segments hotly contested between machine- and hand-woven fabrics; we are a long way from knowing the precise effects of different variables on this competition. While it is difficult to be sure -- given the differences in quality, style, etc. and the paucity of comparable data – it does not appear that handloom producers who survived the onslaught of machines did so primarily through out-competing capitalist firms on price,[57] as "self-exploitation" models would suggest, though they certainly did cut prices to keep up with declining prices for factory cloth, and suffered as a result.

Interestingly, back in Jiangnan, the unusually sharp gendered division of labour endured and may have deepened between the Taiping and the Revolution, even as the specific tasks and economic dynamics involved shifted. In much of the Western part of the Delta (particularly around Wuxi) what had previously been cotton districts became silk districts after 1860; the impetus came not only from the declining returns to rural cotton weaving but from an opportunity created by silkworm blight in Italy and France. Silk production brought many more women out of their homes into centralized filatures, a process that already had been evident in the silk-reeling sheds

57 Kraus, *Cotton and Cotton Goods* 126- 129

that grew up in and around Eastern Delta market towns during the previous century.[58] Yet while pre-mechanized silk reeling had involved special skills, and seems to have been practiced by women for as long as they could keep it up, working in the mechanized filatures required less skill (though significant endurance); young women did most of this work, and usually abandoned it after marriage.[59] The actual tending of silkworms was also overwhelmingly female, but remained home-based and involved both married and unmarried women. These women may have had even less contact with non-kin males than pre-1850 cocoon producers: those women had often reeled the silk as well, and in some places that process had been supervised by skilled workmen hired in from outside.[60] While the Guomindang state tried to establish direct contacts with women engaged in 20th century sericulture, it did this through agricultural extension workers who were almost exclusively female.[61]

While returns from sericulture varied wildly—not only due to price fluctuations, but even more to the inherent risks of total crop failure—this does not seem to have encouraged a diversification of women's efforts, as the instability of cotton returns in the late Ming apparently did. On the contrary, many women in this region intensified their commitment to sericulture during the 1920s, rearing two crops of silkworms.[62] From the 1860s to at least 1900 was a lucrative time, to the point that there is no puzzle about women concentrating on silkworm cultivation, even with its fairly high risks. However, estimates for the 1920s onward vary enough that

[58]Bell, Lynda, *One Industry, Two Chinas: Silk Filatures and Peasant-Family Production in Wuxi County, 1865-1937* (Stanford: Stanford University Press, 1999), p. 97; Li, "Cong 'fufu bing zuo"; Li, *Jiangnan zaoqi gongyehua.*
[59]Bell, *One Industry, Two Chinas*, pp. 103-4.
[60]Fortune, *Residence Among the Chinese*, p. 374.
[61]Bell, *One Industry, Two Chinas*, p. 136.
[62]Bell, *One Industry, Two Chinas*, pp. 118-120.

one may need some explanation besides simple profit-seeking to explain what seems to have been an ever-greater degree of concentration on this one economic activity by women in silk regions.[63] The concentration on one activity was such that when the silk industry in Kaixiangong village collapsed in the 1930s, the women became largely idle (or left for Shanghai), rather than moving into any other kind of work.[64] At least in Bell's account, rural Wuxi women who did not work in sericulture were mostly women who lived on particularly small farms which were far from the area's urban core. Their husbands often left for jobs in cities (they lived too far out to commute and had too little land to focus their labour on it), leaving the family's women to tend the micro-plot. Thus they were doubly disadvantaged and perhaps doubly isolated: their move into farming can hardly be seen as breaching traditional gender barriers, but was akin to what women left behind by migration (or death) and unable to hire a farm labourer had done for centuries, with the difference that many of these women received remittances from their husbands.[65] From another perspective, the situation

[63]Bell, *One Industry, Two Chinas*, pp. 110-121 estimates that the returns to labor in sericulture were very low, and sees emphasizes population pressure, cultural opposition to married women working away from home, and various forms of state-merchant power as the reasons why ever more women were ever more involved in this work. On the other hand Zhang Li ("Peasant Household Economy," pp. 35-63, 119-189) uses the same survey data as Bell to conclude that the returns to women's labor in sericulture represented a considerable improvement over other options and earlier conditions. Zhang's evidence is compelling for the period up to roughly 1920, but the situation is less clear thereafter. On the one hand, Zhang raises several criticisms of Bell's estimates for the 1920s-1940s that appear to be valid (particularly in Bell's use of price data), but there are some gaps in her evidence as well—in part because the survey results generally do not distinguish between male and female labor, and seem to count labor inputs in rather idiosyncratic ways—so that the disagreement between her and Bell for this period is hard to resolve without access to the original survey data.

[64] Fei Xiaotong, Chinese Village Close-Up (An abridged compilation of Peasant Life in China (1939), An Interpretation of Chinese Social Structure (1946), Kaixian'gong Revisited (1957), and Present Day Kaixian'gong (1981) (Bejing: New World Press, 1983), p. 104.

[65]Bell, *One Industry, Two Chinas,* pp. 125-130.

of these women foreshadows the feminization of agriculture in parts of contemporary China (and earlier in Taiwan) as men moved into better-paying jobs; since this has occurred at the same time that farms again often become single households; many of the women taking over farming have not only fallen further behind their men-folk in income, but also in the range of their extra-familial contacts.

Looking at cotton-growing Tongzhou just north of the Yangzi across from Jiangnan, Kathy Walker describes what may be the closest 20th century analogue to Elvin's picture of the late Ming. Once largely a supplier of raw cotton to Jiangnan (an earlier incarnation of its textile industry having been mostly wiped out by Southern competition), the Tongzhou region began producing middle grade cloth for export (especially to Manchuria) after about 1880, using foreign yarn for the warp and homespun made from local cotton for the weft.[66] Most of the producers were tenants or part-tenants/part-owners on small farms, and both men and women wove in an attempt to fully utilize their looms and compensate for small, not especially fertile farms. The pattern became more firmly established during the Republic.

Walker argues that this rural industrialization did not make Tongzhou any more prosperous, and criticizes Thomas Rawski's claim that increased cloth consumption indicates an improvement in living standards; at least in Tongzhou, she argues, buying more manufactured cloth (which was less durable than homespun) represented a step *down* for people who were too busy trying to scrape together a subsistence income to make cloth for themselves anymore.[67] And since the cloth produced here used partly handspun yarn, lower earnings per piece of cloth were not offset by as sharp

[66]Walker, *Peasant Path*, pp. 94-95.
[67]Walker, *Peasant Path,* p. 223.

a decline in the amount of labour going into each piece of cloth as was the case in areas that relied completely on machine-spun yarn. Unfortunately, Walker provides almost no more general data on incomes or consumption, and the little she does have is from a wartime Mantetsu survey. But if she is right, her point would be quite important.

Walker also argues that as men took up the loom, Tongzhou women moved into agriculture for the first time, or at least the first time in quite a while. Prior to the 20th century, she claims, there are almost no references to women in this area doing farm work except for weeding, yet 20th century women often worked in their own fields, and even hired out as farm labourers. While this was due to the labour intensity of cotton production and to men beginning to weave, it also reflected a more general, highly gendered process of proletarianization. As peasants' holdings proved increasingly inadequate (due both to the emergence of a new landlordism and to population growth[68]), poor men and women had to hire themselves out more to make ends meet. Men, however, tended to get better-paying non-farm jobs, either locally or in the cities; if they hired out as farm labourers, it was usually short-term work between other jobs. Women, largely blocked from better jobs, were left to tend the family micro-plot and/or become hired farmhands. Though women were a minority of hired agricultural labourers, they worked the majority of hired days, in Walker's data. When the women who ran many small farms needed help, they hired other women, whom they could supervise more easily; big farms preferred women because they could pay them less.[69] Cotton production, which

[68] Walker, *Peasant Path,* p. 176. There are serious risks in basing the conclusion that women worked a majority of hired days on a 1941 survey, since wartime sent many men into armies or into hiding, but Walker sees the feminization of agriculture in Tongzhou as rooted in longer-term processes.
[69]Walker, *Peasant Path,* pp. 215-8.

involved less irrigation than rice, was also easier to feminize prior to the widespread use of power-driven pumps. Thus paradoxically, *work* was "de-gendered" in the sense that women took on tasks once considered exclusively male, but without a concomitant erosion of *spatial* restrictions and seclusion like that of the late Ming. Instead, Walker presents a grim scenario that combines additional work burdens, a stagnant or falling standard of living, and continuing or even increased seclusion. As noted above, the evidence for a falling living standards is thin, but this is certainly possible; and while the seclusion may also be overstated—it may be that proximity to rapidly changing Shanghai area blinded people to smaller local changes—Bell and Walker between them certainly give us plenty of reason to doubt that the increased economic importance of female employment outside the home in the 20th century Lower Yangzi enhanced their autonomy.

The outcomes that Bell and Walker describe thus differ strikingly, not only from the "common sense" that tells us individual earning power will enhance women's autonomy, but also from the situation that Janice Stockard describes for the Pearl River Delta, China's second most advanced region, where silk played a leading role. While young women's earning power there certainly did not create equality, it gave them considerable power to negotiate the timing and to some extent the terms of their marriages, or to resist marriage altogether. They could also resist certain other kinds of work—as Tongzhou cotton workers, for instance, could not—that might interfere with their ability to reel silk. And while this power was most effectively wielded before marriage, when a natal family eager to hold

on to a young woman's earning power might well back her up, spaces that benefited women more generally also appeared.[70]

Some avenues do seem available to advance this inquiry further. There are, for instance, some 1930s county-level data on purchases of imported and manufactured goods for Jiangsu and Zhejiang; it might be interesting to see to what extent these areas were using things that should have made managing the household a little easier for women, such as matches or kerosene, and how much of any growing consumption consisted of goods like cigarettes, which were consumed individually (mostly by males) and so would have done nothing to compensate or offset women's additional labor for the market. This might clarify both standard of living questions and issues of what happened to control of the "family income" as it became more easily separated into parts earned by each member.

It may, in fact, turn out that much of the difference between Stockard's relatively optimistic view of women's work and autonomy and the much darker views of Bell and especially Walker can be understood in terms of the geographic and job mobility of *men* during the same period. While men were never as restricted in their mobility as women, neither did they did automatically control their movements or earnings, at least as long as they were part of something larger than a simple conjugal household. The degree of that control varied, among other things, with the location of their work. Where men remained on the farm and in the village (as appears to have been the case for most of them in the region studied by Stockard), the movement of women into off-farm wage labour (or even into more remunerative and specialized labour within the household compound) may

[70]Stockard, *Daughters.* On "girls' houses" and married women specifically, see pp. 45-47; on reelers being excused from some other household work, see 152-3.

well have been to their advantage, increasing their perceived importance and sometimes creating a small fund that they (or a more senior woman in the family) could draw on directly. But where men as well as women did more of their work outside the household economy, both geographically and in terms of the mode of production—and men were able to move farther and faster, at least geographically—the erosion of a unified household economy may have actually left men in control of a larger share of the family income than before. In such a situation, particular family configurations would have mattered enormously: a young wife with good relations with her mother-in-law, for instance, would be in a far better position to insure that a large share of the earnings of an absent husband went to immediate household needs than otherwise.

After the Revolution

I will treat post-1949 developments more briefly, in part because I know less about them. But in this period, too, there seem to be interesting disjunctions between the economic and cultural impact of changes in female labour. For instance, given the very sharp decline in returns to rural textile work during the 1860-1949 period noted above, it may be that the government did not actually diminish female earning power that much when it engineered the demise of that industry in the 1950s. (This not to say that the decline of pre-revolutionary sidelines more generally was not important. In many places, especially in North China, it made a very large difference, as profits from sidelines had both smoothed fluctuations in agricultural earnings and had provided a good deal of the working capital for agriculture in poorer areas.[71]) But even if the lost economic returns were not large, the felt loss of

71 See, for instance, Friedman, Pickowicz, and Selden, *Chinese Village, Socialist State.*

status among some women was significant: moving into agriculture was widely (though not always) considered a step down by women, despite strong government efforts to valorise it. Women were almost never awarded work points comparable to those of men, even when their contributions to agricultural production were probably comparable.[72] In the latter part of the Maoist period, rural women often took control of other kinds of rural sidelines, such as raising poultry and vegetables; and since, unlike grain, these products could often be sold at free market prices, they sometimes contributed a very significant portion of the income of farm families as commune income largely stagnated. Still, it does not seem that this kind of work was ever accorded a status commensurate with its economic importance, even within families; it was state-mandated and "socialist" grain production, which remained predominantly male in most parts of the country, that was celebrated as "basic."

Urban proletarians were, of course, celebrated as the vanguard of the new China, and women in textile factories shared in this prestige as well as in the material benefits granted urban workers. In some cases, women factory workers were particularly celebrated as heralds of a new era, and women in a silk factory later interviewed by a western anthropologist were unanimous in saying that this strongly influenced their own feelings about the desirability of working there. In particular, those who had worked in a factory before the Revolution recalled that having this kind of job went form being a matter of shame for them before the Revolution to being a matter of pride afterwards.[73] Cotton mill workers were not celebrated in quite the

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Ion the irrigated and agriculturally more productive South, it was probably more common that agricultural surpluses had funded the expansion of non-agricultural activities.
72 E.g. Chan, Madsen and Unger, *Chen Village*; Margery Wolf, *Revolution Postponed;* Friedman, Pickowicz and Selden, *Chinese Village, Socialist State;*
73 Lisa Rofels, *Other Modernities*

same way as silk workers. Silk was in some ways a quintessentially Chinese product, and during the 1950s it could also be bartered to the Soviet Union or Eastern Europe on very favourable terms for much-coveted steel. It thus occupied a special place in both the reality and the mythology of national development, and the way that the young women in that particular industry were encouraged to think about themselves may bear some comparison to the patriotic appeals made to Japanese silk workers during the early industrialization there. (The USSR, having made huge investments in developing domestic sources of cotton, was not inclined to grant similar terms to Chinese cotton yarn or cloth.)

Discipline in textile mills, as in most other Chinese factories, drew in theory on Fordist models, but enforcement was intermittent, and many pre-revolutionary practices lingered.[74] As noted before, there was an increase in the speed and intensity of work in textile mills during the 1950s, and a brief period of very intense work (resulting in many breakdowns of both people and machines) during the Great Leap Forward, but after that there seems to have been little further effort to improve skills or intensify labour.[75] While some women moved to better jobs within the mill over time – whether thorough merit, seniority, or connections – there does not seem to have been a practice of rotating people among jobs in the mill to diversify their skills.

The post-1979 period has seen such diverse patterns of change in different sectors and regions that even a summary of the principal patterns would require far more space than I have here. As noted above, workers in cotton textiles have not fared very well : they are working harder and enjoy

74 Franz Schurmann, Ideology and Organization in Communist China; Andrew Walder, *Communist Neo-Traiditonalism: Work and Authority in Industry*
75 Zhao Gang, *Cotton Textiles in China*; Zhao and Chen, *Zhongguo mianye shi*

less security and benefits, and their wages have not kept up with those in many other sectors. Since even women in the once prestigious silk mills now perceive their jobs to be dead-ends, contributing little either to their futures or to the creation of a "modern" China (many say they would prefer to work in a semi-conductor plant, even if they earned no more there),[76] it seems likely that cotton textile workers from urban backgrounds have suffered a similar decline in their status and self-perception. For the rural migrants who fill many of the other jobs in the cotton mills, it is more likely that their jobs represent a step up, but thus far relatively little is known about their future life courses. That they are supposed to return to their villages clearly does not mean that all of them will; but so far it appears that this is a common pattern; what they bring back, other than some cash earned is an important, but as far as I know, unexplored question. The decline of village exogamy during the post 1949 period may in fact turn out to be a more significant contributor to economic development than would be immediately apparent. Since villages control much rural industry, there is an inevitable tendency to allocate jobs in which people will acquire valuable skills to those who will stay in the village. In the past, that meant men exclusively,[77] but this is no longer the case in much of China. Families, of course, often hoped to give their daughters skills that would facilitate a better marriage, but insofar as parents in exogamous villages had little expectation of benefiting from a daughters enhanced earning power, self-interest did not reinforce this desire in the same way that it would with a son. This is now changing, and parents in some places reportedly feel just as likely to be supported by their daughter and son-in-law when they grow old as by their son and daughter-

76 Rofels, *Other Modernities*

77 See, for instance, Ellen Judd, *Gender and Power in Rural North China* on the tendency during the early reform years to give jobs that did not teach skills to village women on the theory that they would marry out of the village (still the case in some parts of the country).

in-law. Similarly, the gradual decline in barriers to migration by single women, which also allows them to return to their place of origin as respectable, even admired, figures, may change the dynamics of investing in giving young women skills, and so in the acquisition of human capital more generally. If this is indeed happening, looking at what happens to migrants entering the textile mills after their first stint in the mill is over may turn out to be a very interesting project. The sector remains one of the largest employers of female non-agricultural labour – and may get even more so as textile quotas in various countries lapse within the next few weeks. And it is obviously a sector that has played a crucial role in the industrialization and the creation of an industrial workforce elsewhere.