

## **Textile Production and Gender Roles in China, 1000–1700**

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**W**ork produces a whole range of goods, not just a material product, a commodity with a calculable economic value. It can express an identity, confer respect or prestige, and naturalise social hierarchies. This paper explores the links between changes in gender ideology and changes in the organisation and technology of the production of textiles, initially a female domain of skills and management that came increasingly under male control as the economy expanded and diversified from Song times on.

The classic gender division of labour in China was encapsulated in the saying: "Men till, women weave" (*nan geng nü zhi* 男耕女織). The growing of food-grain and the production of textiles were considered equally fundamental in providing for the welfare of the common people and the strength of the state: this belief remained central to Chinese statecraft for more than two millennia, ever since it was first formulated by the political philosophers of the fifth century B.C. and institutionalised in the tax system. In early texts "weaving" was a synecdoche for the whole process of textile production; women were responsible for making cloth from start to finish. In the sense that we are what we do, womanhood in early imperial China was defined by the making of cloth: with a

few rare exceptions, a weaver was by definition a woman, and a woman was by definition a weaver. Although men worked outside the home and women inside, both were portrayed as productive members of society.

But like many proverbs describing ideals, the saying “men till, women weave” persisted long after its universality had lapsed. In the period after 1000 A.D. China experienced a long-term elaboration and expansion of the economy, marked by urbanisation, commercial growth, the development of large-scale markets, and complex new divisions of labour in all productive sectors, perhaps most notably in the production of textiles. The growth of the textile industry involved new forms of organisation of production that made men the skilled workers and marginalised women. In the early Song dynasty textile production was still considered a female domain; by the late Qing it had come under male control and was no longer automatically identified with women. What I am interested in here is the social effects of this shift. When women were no longer primary producers and the repositories of an important field of technical knowledge and skills, did this affect their status or result in a reformulation of what a woman was expected to be? And if so, how did the shift in gender roles intersect with other hierarchies such as status or class?

To make links between changes in the organisation of production and changes in gender *roles*, clearly it is necessary to go beyond the straightforwardly quantitative questions of women's productivity or of the strict cash value of their work. One must take into account the symbolic as well as the market value of different kinds of cloth in Chinese society.

### **Cloth and the Chinese Social Fabric**

Gifts, exchanges or levies of cloth were fundamental in creating the social and political ties of every sphere of Chinese society. While the market value of cloth changed over the centuries, its symbolic role remained crucial in defining and maintaining relationships.

In Chinese thought clothing distinguishes humans from beasts, and among humans it distinguishes between the rulers and the ruled. “The noble wear sweeping robes, resplendent as mountain dragons they rule the empire; the humble wear coarse wool or hemp garments, in winter to protect them from the cold, in summer to shield their bodies” (*Tiangong kaiwu*: 31). Clothing was fundamental to the Chinese idea of dignity and propriety; the naked body was neither beautiful nor erotic. The legendary Yellow Emperor invented proper clothing, replacing the skins of animals and the feathers of birds with silk and hemp, “making jackets in the image of Heaven.” Of the silkworm the early Confucian philosopher Xunzi says: “Its merit is to clothe and ornament everything under Heaven, to the ten thousandth generation. Thus rites and music are completed, noble and base are distinguished, the aged are nourished and the young

reared.”<sup>1</sup> Clothing is the mark of civilisation. Not only does it distinguish ranks and provide ornament, it is linked to the reproduction of human society through descent, the care of the old, the raising of children, and the proper distinction and complementarity between the sexes.

It is no coincidence, then, that the making of cloth provides several of the most fundamental metaphors of social and intellectual order in Chinese thought. The disentangling, ordering, smoothing and combining processes that produced yarn, the timeless continuity of the long, strong warp threads and the regular patterning of weft threads that joined them provide many of the metaphors by which the Chinese understood the world. As the seventeenth-century writer Song Yingxing points out, “to govern” (*zhi* 治) is the same word as “to reel silk,” “civil disorder” (*luan* 亂) as “ravelling a skein,” “canonical texts” (*jing* 經) as “warp threads,” and “philosophical discourse” (*lun* 論) as “silk yarn” (*Tiangong kaiwu*: 31). And from these moral threads were woven the fabric of Chinese civility. To give just a taste of the range of metaphorical uses derived from textile terminology: the word *jing* 經, whose primary meaning is “warp threads,” also denotes the cosmologically and ritually important north-south axis of a city, as well as the tracts or meridians along which energy circulates through the body, and the regularity of the female menstrual cycle.

Textiles were an essential element in the forging and reinforcing of social bonds. Gifts of cloth were indispensable for most ceremonies and social exchanges, as is made plain by etiquette books and popular encyclopaedias (Sheng 1990: 125). Their role was especially prominent in weddings. Marriage was a joining of families, and fine cloth was one of the groom's family's gifts to the bride. Marriage was also a transition: “The wedding is not [a cause] for congratulations; it is [a case] of generations succeeding each other” said the Han author of the *Bohu tong* (Mann 1991: 208). The parental generation had lost their powers of biological reproduction, but were often reluctant to cede the reins of other forms of power to the new couple. The inter-generational struggle was classically demonstrated in the tyrannical treatment of a new bride by her mother-in-law. But a bride could hope to sweeten her reception by coming with capital in the form of a dowry or bridal goods. At certain periods this might consist of land or bond-servants given to the young woman out of her natal family's possessions (Birge 1992). As a more general rule, it comprised clothes, jewels, quilts and household goods, and cloth in large quantities. Girls from poor families usually had as dowry only the textiles they had produced themselves (or goods purchased with the money they had earned making textiles).

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<sup>1</sup>*Huainanzi* (The Book of the Prince of Huainan, a compendium of natural philosophy compiled c. 120 B.C.), quoted in Kuhn 1988: 250; *Xunzi* (The Book of Master Xun, a philosophical treatise written c. 240 B.C.), *ibid*: 301.

Throughout Chinese history young women worked hard on their trousseau or dowry. The twelfth-century writer Hong Mai 洪邁 mentions a young woman who died unmarried at twenty-one and was buried with the thirty-three bolts of open weave, seventy bolts of plain silk and about fifty metres of coarse silk that she had woven for her dowry (Sheng 1990: 137). The cloth that a bride made and received was both trousseau and marriage capital, a symbol with a real cash value. It was female property over which the bride herself generally retained control. Hong Mai relates the tale of a dog-butcher who converted to Buddhism and wished to give up his business; his wife told him she still had several bolts of cloth in her wedding chests that they could use as capital to start up in a new trade (Ebrey 1991a: 111). Among the elite the cloth was more likely to be used to make fine quilts and clothes, a trousseau to astonish and overawe the groom's mother and sisters. Like the poorer woman's marriage chest of saleable cloth, the elite trousseau was a means to establish the new bride's high status and right to respect.<sup>2</sup>

Textiles also played a fundamental role in another ritual of transition: funerals and mourning. With their death, the old regained the power they had lost to their children, acquiring the status of ancestors. Thus the warp-threads of the descent line were unrolled another generation into the future. As with weddings, funerals played an important role in affirming or renegotiating rank, and in cultivating the links between the bereaved family and the community in which they lived (Watson 1988). Clothing played an integral role in funerals and mourning. The Chinese did not wear black as a sign of bereavement, but undyed or white cloth. In the first stages of mourning the very coarsest, untailored and untrimmed hemp cloth was worn. In the later stages of mourning other plant fibres could be substituted for hemp and the edges of the cloth could be trimmed. The Han compendium of ritual *Liji* says beancreeper cloth may be worn in the later stages of mourning (Kuhn 1988: 22), but most people were likely to substitute ramie, or later on cotton. Mourning grades and the corresponding variations and sequences of mourning garments were determined by the mourner's degree of relatedness and relative status to the deceased. Thus mourning clothes made visible the hierarchies of the social web (e.g. Freedman 1970; Ebrey 1991b).

Cloth was also a key symbol of the power of the state over its people. In the eyes of the Chinese state, man and wife were equal contributors to reproducing the social order: "men till and women weave."<sup>3</sup> The basic tax unit was the peas-

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<sup>2</sup>It was also a medium for maintaining inter-generational bonds, not those of hegemonic patrilineal descent, but of descent through the female line. Some articles of clothing, like the jewellery passed down from mother to daughter, might become heirlooms. Song elite families were likely to pass wedding robes down from one generation to the next (Sheng 1990: 110). And of course elite dowries could also be converted into capital, to buy land or set up a business (see for example McDermott 1990: 26).

<sup>3</sup>In the West too we tend to think of this as a natural division of labour, but it is by no means universal. In several West African societies, for example, men are the weavers

ant household whose tax dues, until the Single Whip reforms of the late sixteenth century, included both grain produced by the male workers, and textiles produced by the female workers, generally of roughly equal value. Non-peasant households were taxed on similar principles. The women in landlord households also produced textiles, and in periods when commutation to cash was not permitted, urban households that did not produce textiles themselves had to purchase cloth in order to pay their taxes. Even after the Single Whip tax reforms substituted cash for payment in kind, state levies of cloth continued and the state remained by far the largest consumer of textiles.<sup>4</sup>

Textiles were fundamental to the functioning of the Chinese state. From the Zhou dynasty until the late Ming, a period of over two millennia (roughly 700 B.C. to 1580 A.D.), every household was liable for taxes in cloth and yarn as well as grain. The government needed huge quantities of basic textiles to clothe the army. Initially hemp and ramie were levied, but in the Yuan dynasty cotton started to replace them in taxes as well as domestic use. Silk cloth too was required in huge quantities by the state: for the court to clothe itself in fitting majesty, for the government to pay bureaucrats and soldiers, to alleviate hardship, to reward loyal service, to purchase horses from the Tibetans, buy off the current nomadic enemies in the north, or impress tributary monarchs in Southeast Asia. Silk yarn was levied from peasant producers to be woven into satins, damasks and brocades in imperial manufactures. Until the late Ming, hundreds of millions of bolts of cloth were levied and redistributed directly by the Chinese state every year; thereafter merchant middlemen played the predominant role in distribution.

Cloth also served as a medium of exchange and as a standard currency in early China. In later times it continued to be the usual medium of exchange in many local markets, and its use as currency revived whenever coinage was short or its value in flux.

By spinning and weaving, women produced not only objects of value but also persons of virtue. Learning these skills inculcated the fundamental female

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and women work in the fields (Schneider 1987). Michel Cartier has shown that in ancient China the timing of the silkworm cycle precluded combining sericulture with work in the fields, thus establishing a division of labour that kept women at work inside the house well before female seclusion had been developed into a symbol of social and moral order (Cartier 1984).

<sup>4</sup>Sometimes the tax rate was based on numbers of people, sometimes on size of holding, but at a very rough average, rates of taxation for peasant households from the Han up to the Ming varied around two bushels of grain and two bolts of tabby silk (somewhat more for plant fibre cloth) per taxable couple (able-bodied persons aged between fifteen and sixty). There was an ideal equivalence between a bushel of food-grain and a bolt of plain silk, although market prices often departed greatly from this depending on fluctuations in relative supply and demand; see for example Tong 1981: 66 ff, 108 ff; Liang 1980. On the circumstances leading to the Ming reforms see Huang 1974.

values of diligence, frugality, order and self-discipline. Little girls of gentle birth were taught to spin and weave from the age of eight or nine, when their brothers started learning to read and to carry arms. "The wife is the fitting partner of her husband, performing all the work with silk and hemp," says the *Liji* (Kuhn 1988: 20). Long after elite households had turned to buying the cloth for their needs on the open market, patriarchs admonished their daughters to spin in order to learn respect for the hard work of their inferiors and to weave hemp to learn frugality. The moral value of personal involvement in spinning and weaving is clearly illustrated, for example, in the late Ming popular encyclopaedia *Bianyong xuehai junyu* of 1607. Figure 1 is the last in a sequence of woodblock drawings showing the women of a gentle household working in harmony to spin and weave patterned silks which, in the final tableau, they present to the grandparental couple so they can choose their clothes for the coming year.<sup>5</sup> This, it seems to me, is not a realistic depiction of contemporary life among the rural gentry (who by then would be more likely to buy patterned silks than to produce them at home). It is rather a parable of virtuous femininity and of the role of women's work in upholding the social order (Mann 1991; McDermott 1990).<sup>6</sup>

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<sup>5</sup>The section of the *Bianyong xuehai junyu* devoted to farming and textiles is one of many inspired by the *Gengzhi tu* (Agriculture and sericulture illustrated), presented to the Song emperor by Lou Shou in 1145 and first printed in wood-block version probably early in the thirteenth century. Lou's accompanying verses and the imperial responses were in high literary style, and in 1593 the author of the *Bianmin tuzuan* (Collection of pictures for ordinary people) produced a series of illustrations on the themes of the *Gengzhi tu*, but much more roughly finished, accompanied by short poems in equally simple and accessible style. The *Bianyong xuehai junyu* series uses the same poems but the content of the illustrations is slightly different (Kuhn 1976).

<sup>6</sup>Stone-Ferrier's study (1989) of the moral symbolism of spinning in seventeenth-century Holland offers an interesting parallel, showing the moral importance attributed to traditional gender divisions of labour in a period of social instability in Holland.



Figure 1. Women presenting the patterned silks they have woven to the senior couple; last scene from the series of sericultural illustrations in the *Bianyong xuehai junyu* of 1607, modelled on the *Gengzhi tu*; copy in the Sinological Institute, Leiden, published by Kuhn 1976: 367.

### Medieval Divisions of Labour and the Value of Women's Work<sup>7</sup>

There were four main types of establishment producing textiles up to the Song: (i) peasant households which relied essentially on family labour; (ii) large elite households, rural or urban, in which the mistress organised the production of textiles by family members, servants, and hired female workers; (iii) state manufactures, run by officials, using permanent or temporary conscripted workers,

<sup>7</sup>For a more detailed account, see Bray forthcoming: Part 2.

male and female; and (iv) urban workshops of various kinds. State manufactures and urban workshops owned complex drawlooms on which fancy weaves and designs (damasks, brocades, satins or gauzes) could be produced. They specialised in the production of high-value textiles, mostly complex silk weaves; they did not produce their own raw materials but acquired them from tax goods or on the open market. Peasant and manorial households produced their own raw materials, both silk and plant fibres (hemp in the north, the finer ramie in the south), which in peasant households were all made up into simple weaves (tabbies or twills) using cheap and simple looms; manorial households frequently owned drawlooms as well as simple looms and produced complex silk weaves too.

Up to the Song, redistribution of grain and cloth was almost exclusively the prerogative of the state. The taxation system required that all peasants everywhere produce grain, yarn and textiles for tax. Changes in regional impositions defined the map of textile production and specialisation. It was not possible for individual households to opt out of producing silk if they lived in an area with a sericultural tax, or for individual households, whole villages or even districts to give up subsistence production and specialise in commodity production as many did in the Ming and Qing, buying their food on the open market. The tax system imposed a generalised gender division of labour in which all peasant women produced cloth, while peasant men were kept outside growing grain and fibre-crops. So the demands of a state redistributive economy maintained a discrete female productive sector and highlighted the prominence of the female contribution to the household economy.

Women's work required the following equipment: each household needed the basic flat loom needed to make tax cloth; it also served for subsistence needs. If a family raised silkworms, they needed trays and mats and a room or shed to keep the silkworms, as well as a basic reel for reeling the raw silk off the cocoons, and a spindle-wheel for spooling and quilling. The spindle-wheel could also be used for spinning hemp and ramie. This equipment was almost entirely made of cheap materials—ordinary wood, bamboo, hemp cords—and could be made and maintained at home or purchased from a village carpenter. But peasant households could not afford the capital or the space for the elaborate looms needed to make complex cloth (even though peasant women might have acquired the skills to use them working in a nearby manorial household).<sup>8</sup>

Silk took longer to weave than bast fibres, perhaps eight to sixteen days as compared to two days for a bolt, though it varied according to whether the loom had treadles, and how skilled the weaver was. The Western Han mathematical treatise *Jiuzhang suanshu* 九章算術 gives an example in which “a woman skilled at weaving” is said to weave at rates of between 2.5 and 5 Chinese feet a

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<sup>8</sup>A drawloom could be as much as sixteen feet long, with a tower as high as fifteen feet (*Tiangong kaiwu*: 31).

day, depending on how fresh or how tired she might be (quoted in Tong 1981: 67). At forty feet to the bolt, that means it took a good weaver eight to sixteen days to produce a bolt, presumably of tabby silk.

The market values given in early texts indicate that as well as contributing half the household tax, peasant women could sometimes earn income from the textiles they produced. Plant-fibre textiles (except for very fine ramie) were a less valuable and transportable commodity than silk, and had only local markets. But silk cloth was transported throughout China and beyond: light and valuable tabbies that peasant women could produce on their simple looms were in demand everywhere. Not only did they serve as a universally recognised currency, they also formed the basic material for elite clothing.

Elite women were also involved in textile production, often very profitably, in urban mansions and on rural manors. The involvement of city ladies in textiles seems to have been most marked in the period from Han to Tang; thereafter their place was apparently taken by an ever-increasing number of private workshops. But rural manors or gentry households continued to be involved in textile production at least until the Ming. Unlike the peasantry, manorial households could afford the considerable investment for complex looms and were thus able to produce fancy silks commanding higher prices than tabby, although not the very finest kinds, all of which were produced in city manufactures and workshops by professional weavers.

The mistress of the house was usually the person in charge, though if a junior wife had special skills she might take her place. Skilled or inventive women could add greatly to the wealth of a household, even one that was rich to begin with. I quote below the case of the Han general Huo Guang's 霍光 junior wife, who learned to weave figured silks worth thousands of cash per bolt (and see Kuhn in this volume). Another example from the same period is given in the *Hanshu*, which tells us that the senior wife of General Zhang Anshi 張安世 not only worked at textiles with her own hands, but also managed a workforce of seven hundred servants, producing textiles for sale that greatly contributed to the family's riches (Tong 1981: 39). In many country manors the mistress of the household had a small labour force consisting of the other household women (wives, daughters and servants), and perhaps some hired "weaving-women" from the villages nearby. The "Agricultural treatise" by Chen Fu, written in 1149 and describing rural conditions in the Lower Yangzi, devotes a section to sericulture. Chen makes calculations of quantity and profit based on a family of ten with enough labour to raise ten frames of silkworms. The total output of tabby was calculated at 31.2 bolts of silk, worth almost 3,000 kg of rice at current prices; this would have been more than enough to feed the family of ten through the year.<sup>9</sup>

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<sup>9</sup>Ten frames of worms yield 120 *jin* (72 kg) of cocoons; each *jin* gives 1.3 *liang* (50g) of basic silk thread (*grège*), and 5 *liang* make 1 small bolt of light tabby (half the

In these larger households women did all the spinning and weaving. Children were often given the task of sitting up in the tower of the drawloom, changing the patterns. Whether urban or rural, manorial textile production was a female domain, organised by the mistress of the household. Young boys might be involved, but no man gave orders.

As late as the Song, complex weaves made on drawlooms formed only 4% of total production even in the most urbanised and advanced silk-weaving regions of Sichuan and the Lower Yangzi (Kuhn 1987: 308). The most valuable silk textiles were produced in state manufactures, and increasingly in private urban workshops. Up till the fall of the Northern Song, the most sophisticated looms and the most skilled workers were to be found in the silk-weaving centres of Sichuan and the north. The state itself ran the manufactures that produced the most elaborate and valuable silks, using silk thread levied in taxes. The looms and much other equipment used in state manufactures were very specialised and expensive, constructed by skilled carpenters (Kuhn 1987: 326 ff).

The state manufactures were divided into separate workshops for different stages of production (dyeing, reeling, quilling, weaving), and the workforce was correspondingly specialised. Depending on the period, the workforce consisted either of unfree hereditary craftsmen and women, or of conscripted free craftspeople. Scanty documentation means that it is difficult to be categorical about the gender division of labour, but plainly this way of organising production was radically different from that of the peasant and manorial households: first, it depended on outside raw materials and labour; secondly, the work process was divided between separate groups of specialised workers; and thirdly, a large part of the workforce was male, and men were the managers. Urban workshops, though mostly smaller, were similarly organised.

To summarise: all but a tiny proportion of the textiles produced in China before the end of the Song were simple weaves made by rural women in peasant or manorial households. It is not just that the workforce was female: rural textile production was a *female domain*, in which technical knowledge as well as the responsibility for production were controlled and managed by women. Rural women in peasant and manorial households produced not just the bulk of the low-value cloth used for common wear, but also by far the major part of the high-value cloth in circulation.

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tax weight). Using 3 hand-driven reels, it would take 10 days to reel all the cocoons (i.e., each reel produces enough for a bolt a day). One bolt was worth 1.4 *shi* (93 kg) of rice, says Chen (*Nongshu*: 21; calculations of equivalents are given by Kuhn 1988: 388).

### **Commercialisation, Diversification, and the Marginalization of Women's Work**

The scope and value of women's work in textiles was affected by a series of factors, not all initially unfavourable, starting in the Song. First sericulture and silk weaving spread to new areas, so that a larger number of women became involved in the production of high-value textiles. The increase in commerce and prosperity and the growth of urban populations increased demands for silk cloth, not simply because there were greater numbers of people able to afford to wear silk, but also because urban dwellers who did not weave themselves had to buy silk to pay their taxes.

During the Northern Song the state made great efforts to encourage the growth of sericulture in the southern provinces. But until the northern provinces were invaded by the Jürchen and then the Mongols, the north remained far in advance of the south, both in the quantity of silk it produced and in the sophistication of its processing techniques. Various handbooks to help officials improve peasant sericulture were written and circulated in the Song (Kuhn 1988: 173). But the real triggers for change were the loss of the north in 1126, the mass migration of northern peasants and craftsmen to the Yangzi provinces and further south, and the establishment of the Southern Song capital in Hangzhou. With imperial manufactures and a myriad private workshops producing luxury silks for a growing market of literati and wealthy merchant families, Hangzhou and the other Lower Yangzi cities became the nucleus of a regional and eventually a national economy, buying up raw materials and processing them into high-quality goods that were sold all over the empire.

As the supply of fancy silk fabrics made in urban workshops increased, so too did the demand for raw silk. The major part of the complex weaves (damasks, satins, brocades and gauzes of various kinds) that constituted maybe 4% of total production during the Song were produced in state manufactures and the rapidly expanding sector of private urban workshops, where production was organised by men, and women participated only as auxiliary workers. Government manufactures used both conscripted and hired workers, and still employed some women weavers (Kuhn 1993). Private workshops used family and hired labour, and the hired labour seems mostly to have been male. Some men acquired their skills through apprenticeship. Others were taught a craft during their military service, working in an army or imperial manufacture, and weaving of complex silks was one of the skills they might learn (Tong 1981: 164 ff). Craftsmen looking for work would assemble in public places, standing in groups by a bridge or a temple waiting to be selected; often jobs were given out by a guild chief. Young workers could be hired and trained up in a kind of apprenticeship. While foremen were usually hired long-term, other workers might be hired as journeymen. Chinese mores did not allow women to stand out in public

places competing with men to be hired, or to work with a different group of strange men every few days; also if a woman had small children it was unlikely that anyone would want to hire her. Moreover men were more likely than women to have been trained in the special skills increasingly needed to compete in the fancy silk market. In sum, increasing numbers of urban men were acquiring specialist skills in textile production.

Meanwhile rural women were still producing both raw silk and tabbies, but the demand for silk yarn was growing, prompting an incipient rural-urban division of labour. The switch by the Yuan state from taxing tabby to taxing only yarn must have encouraged many rural households to abandon weaving tabbies and concentrate on sericulture and reeling (Sheng 1990: chap. 5; Kuhn 1988: 384 ff). A number of technical improvements disseminated in the Song and Yuan allowed sericultural households to increase and perhaps improve their production of raw silk. These included better breeding methods, and the development of several types of reels that improved the quality of the thread or increased the speed with which it could be reeled off.<sup>10</sup> In a society without engineers, it is the workers directly involved in a technical task who are most likely to think of improvements and innovations; most of the spinning and reeling improvements of the Song were probably the work of women.<sup>11</sup>

Another good reason for many rural households to abandon the slow and painstaking weaving of silk tabbies, indeed to give up the exacting tasks of sericulture altogether, was the advent of cotton, a light, fine cloth, warm in winter and cool in summer, of which a bolt could be woven in a single day on a simple loom. Cotton is mentioned here and there in economic documents from the Song, but the industry was really established under the Yuan dynasty which taxed cotton at very favourable rates compared to other taxes. The Ming continued this policy and the area under cotton expanded extremely rapidly, till by the late Ming cotton was worn by everyone and was cultivated all over China.

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<sup>10</sup>Improved breeding techniques included heating the room or shed in which the silkworms were raised so that they matured faster, or using trays that allowed any sick or dead worms to be spotted and removed more easily; there were also improved techniques for killing the moths inside the cocoon, so that reeling could be postponed or spread out over a longer period (Kuhn 1988: 318, 340–43, citing among other texts Wang Zhen's *Nongshu* [Agricultural treatise] of 1313). On rollers: Kuhn 1988: 357 ff.

<sup>11</sup>One Song woman who was important in innovation, if not in invention, was Xu Wenmei, the wife of the poet-official Qin Guan who wrote the *Canshu* (Book of sericulture) in or just before 1090. The *Canshu* is one of the key documents describing improvements and innovation in silk production during the Song. It is a very short work of just ten paragraphs: half treat silk-reeling, half other sericultural equipment and machinery. The details are precise, and the text depicts Shandong methods which Qin prefers to those of the south. In the preface he indicates that his knowledge came from his wife, whom he married in 1067, and who was trained in Shandong methods as a girl (Kuhn 1988: 355).

No sooner did cotton become available than it became indispensable. The cloth was strong and durable, cheap, warmer than ramie or hemp in the winter, and it made padded garments almost as warm and much less expensive than silk; for summer wear it was absorbent and cool and made fine, light cloths that could be dyed in rich colours and calendered to a shine approaching the gloss of silk. The cultivation of cotton, however, spread much faster than its processing, and one of the earlier effects of its adoption was to create a regional division of labour that consolidated the role of the Lower Yangzi as the manufacturing centre of China, reducing the northern provinces to the status of an underdeveloped periphery that exported raw materials and imported finished goods (Chao 1977; Bray 1994). Big merchants controlled every stage of production. They bought up raw cotton, put it out at local markets for peasant women to spin and to weave, had the cloth dyed and calendered in town or city workshops, and then exported it all over China for sale.

By the late Ming and Qing we can distinguish three distinct types of cotton production. First there was subsistence production, which probably accounted for most of the cotton cloth made in China until the late nineteenth century. In economic backwaters where the only exports were raw materials, there were few alternative productive occupations for women, and cotton was spun and woven in every home; either the cotton plants were grown on their own farms, as in Hebei, or if other crops were more profitable raw cotton was purchased, as in the opium districts of Shanxi. Secondly, if peasant women could contribute more to the family income by processing commodities like sugar or tea, they would give up weaving and purchase the necessary cloth. These two systems of production were essentially independent of the control of the cotton brokers. But in the manufacturing conurbations of the Lower Yangzi, and eventually of Nanjing and Guangdong, the inter-regional trade in raw cotton had given merchants tight control over production, which they exercised through a putting-out system. As exploitation intensified, the division of labour within and between households changed. In some families men continued to work in the fields while women would spin and weave, using raw cotton distributed at the village market every morning by brokers; in others men gave up farming and took over from their wives at the loom. In the very poorest households that could no longer afford to weave women were still involved in textile work, either as spinners or as piece-workers making fancy goods, both of which were very poorly paid.<sup>12</sup>

Similar changes took place in the silk industry. By the Ming-Qing transition the production of silk cloth was no longer a female domain. Rural women raised

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<sup>12</sup>Tong (1981) quotes evidence from numerous local sources which I have tried to synthesise in an account focusing on the gender division of labour, both for cotton (Bray 1994) and for the silk industry (Bray forthcoming).

silkworms and sold thread.<sup>13</sup> In the cities and suburbs some silk cloth was produced in workshops, some in “loom households.” The former were staffed by male weavers and provisioned by female spinners and reelers; in the latter whole families worked together, the women toiling at the indispensable but inglorious task of making the yarn while their husbands wove and took the finished cloth to market. Of course this division of labour was a symbiosis, an interdependence, just like that between the workshops and the hired labourers—but the inherent hierarchy is clear in both cases. Furthermore the women's contribution to the household income was no longer distinct, it was subsumed. Where once they had been in charge of the whole process of producing silk fabrics, now they were neither managers nor weavers but humble spinners and reelers. This was true in urban and in rural “loom households,” where all the tasks were performed under the same roof, as well as in the urban workshops where most weaving had been performed by men since Song times. In short, in both commercial and household divisions of labour, women were now restricted to the worst rewarded and technically least demanding tasks. It is not surprising, then, to see a scholar writing on the industrialisation of silk production in the late nineteenth century describe the changes in the workforce as “the feminization of silk-weaving” (Schneider 1987: 435, summarising So 1986). By the end of the Qing, who would remember that once women had woven almost all the silk in China?

### Women's Work and Woman's Place

If women lose control of what traditionally was respected as women's work, of a female domain of knowledge, skills and production common to women of all classes and a necessary complement to the work of men, what are the effects likely to be? Here I would like to cite four anecdotes.

The junior wife of Huo Guang 霍光 [commander-in-chief in the late first century B.C. and an extremely wealthy man] presented to Chunyu Yan 淳于衍 twenty-four bolts of silk brocade with a design of grapes, and twenty-five bolts of damask patterned with scattered flowers. The damask came from the home of Chen Baoguang 陳寶光, whose junior wife could teach the technique. So [Huo Guang's wife] Huo Xian 霍顯 invited her to come in, set up the loom and make the cloth. The loom used 120 patterning devices, and it took sixty days to make a bolt worth ten thousand cash. (*Xijing zaji* 西京雜記, see Kuhn 1988: 203)

The story of Mistress Huang (Huang Daopo 黃道婆): she was born in about 1245. At the age of fifty she is said to have introduced the entire process of cot-

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<sup>13</sup>Of course there were still some gentry households that continued to weave silk cloth (described, for example, in the *Bu nongshu*), but the value added by weaving fell considerably during this period (Bray forthcoming).

ton cultivation and processing from the southern island of Hainan to the district of Songjiang 松江, just outside modern Shanghai. She is credited with having introduced the cotton gin, the technique of bowing, and the multiple-spindle-wheel.<sup>14</sup> After her death shrines were erected in her honour as “the First Cotton Cultivator”; her fourteenth-century biographer Tao Zongyi 陶宗儀 says that this middle-aged woman single-handedly developed a poor region into a prosperous centre of cotton manufacture. (Tong 1981: 203 ff; Kuhn 1988: 212)

In Shengze 盛澤 market during the Jiaqing period (1522–67) there lived a man named Shi Fu 施复, who had two wives. Neither had any children, so they set up a silk loom in their house and every year they would raise several frames of silkworms. The women wound the thread and the man wove, and so they lived very well. . . . The cloth was so lustrous and colourful that when the people at the market saw it they would all fight to buy it at the highest price. Shi always got several more cash for a bolt than the normal price. This allowed him to add 3 or 4 looms over the years so that his family became extremely well-off. (Quoted in Tong 1981: 228; unfortunately he does not name the original source)

Yi Anzu 毅庵祖 was a brewer by profession; in Chenghua 7 (1561) there were disastrous floods everywhere. . . . His brewing materials were all spoilt so he gave up brewing and bought a loom. On it he wove coloured ramie cloth of extremely fine workmanship. People fought to buy every piece that came off the loom, and it fetched a profit of 20%. After three weeks he added another loom, and subsequently acquired over twenty. (Zhang Han 張瀚, *Songchuang mengyu* 松窗夢語, quoted in Tong 1981: 229)

Combing through the literature on textiles, I found that almost all the anecdotes about textiles written up to the Song (and in the case of Mistress Huang, the Yuan) featured female protagonists as skilled workers, inventors of devices or processes, or expert managers. After the Song, men start to figure prominently in the literature, sometimes as anonymous workers (as in the late Yuan tale by Xu Yikui 徐一夔, “The weavers' reply” [*Zhigong dui* 織工對, quoted in Tong 1981: 201]), sometimes as named entrepreneurs. Shi Fu and Yi Anzu both weave; Shi's wives are acknowledged to have contributed to his business, raising the silkworms and reeling the thread, but they are not named, and although Yi certainly did not spin his own thread, we are not even told if he was married.

Feminist historians have suggested that the Song dynasty (960–1279) marked a turning point in Chinese women's status and power. Changes in property and inheritance laws, in the organisation of kinship, the rules of ritual performance, and the ideals and role models of elite and popular culture, initiated during the Song and elaborated in subsequent centuries, contributed to diminish women's autonomy and consolidate their subordination to men. Historians note that women were increasingly portrayed in terms of motherhood or marital fidelity to the exclusion of other roles

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<sup>14</sup>The last, according to Kuhn (1988: 212), was actually Song in origin.

(e.g. Watson and Ebrey 1991). Yet feminist scholars have so far paid little attention to women as producers in pre-modern China, nor have they explored how changes in this domain might have modified or reinforced the changed gender relations inscribed in property law, medicine or moral tracts.<sup>15</sup>

One reason, perhaps, is that the significance of women's work has been masked by the enduring importance of household production in China—an indisputable fact, invariably remarked upon, but one which has not been sufficiently probed. The household can remain the basic unit of production over centuries, yet within this “unit” the composition, the division of labour, the control of skills and the claims to managerial or earning power may change drastically (e.g. Yanagisako 1979; Moore 1988). If we break open the carapace of the Chinese household, what historical processes are revealed?

The anecdotes I have just quoted are indicative of a shift in the representation of specialist knowledge and skills that went into producing textiles. As late as the Song and Yuan, textile production was still represented as a female and predominantly domestic domain. But this changed with the expansion and commercialisation of the textile industry between the Song and the Qing. It is important to remember that the post-Song transformation of the textile industry did not involve any radical technical improvements or inventions; as with most cases of proto-industrialization, changes in markets, investment and the organisation of labour were much more important than technical innovation. If we compare earlier illustrations of textile production like the Song *Gengzhi tu* (Agriculture and sericulture illustrated) with those in the *Tiangong kaiwu* of 1637, we notice that there are no men in the former, whereas men are shown in all the illustrations of the latter except those depicting the rearing of silkworms and the spinning of cotton (Figures 2 and 3).

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<sup>15</sup>Ebrey (1994) devotes a chapter to Song women and textile production, but it provides description rather than analysis of the significant changes that took place or took root during this formative period. Dieter Kuhn's 1987 study of technology and society is extremely suggestive in this regard; indeed in all his work on textile production (e.g. 1988) he explicitly distinguishes between female and male contributions and roles. My debt to him is incalculable; however, he has not yet essayed a gender history of Chinese textile production.

When it comes to the modern period, we find that historians make women's textile skills and earning power central to their arguments about female status and autonomy. Topley's and Stockard's studies of “marriage avoidance” or “delayed marriage” in late nineteenth- and early twentieth-century Guangdong are key examples. And of course the many studies of gender in the PRC take employment and pay into account.

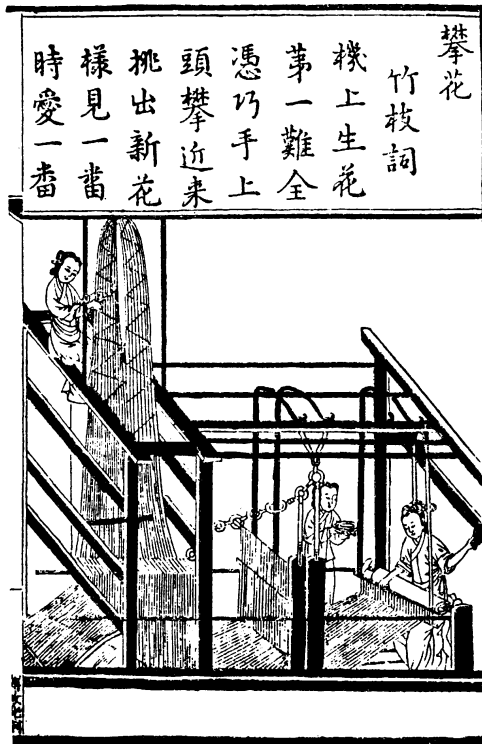
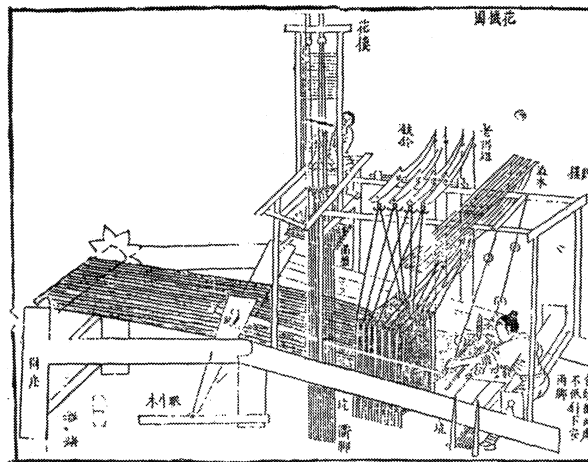


Figure 2. Woman at a drawloom, *Bianmin tuzuan*: 31. These illustrations too are modelled on the *Genzhi tu* series, first drawn in the Song; the only tasks which men are shown performing in this series are the picking of mulberry leaves and the construction of the frames on which the silk-worms spin their cocoons.

Figure 3. Man at a drawloom, *Tiangong kaiwu*: 321 (this is a woodcut from the Ming edition). In the illustrations to the chapter on textile production men are even shown reeling silk and weaving at a backstrap loom; women are shown in three pictures, one depicting the tending of silkworms, and two in sequence showing the preparation of cotton rovings and the spinning of yarn from the rovings.



This does not signify that men had invented equipment which then became part of a male domain of knowledge; it means that as commercial divisions of labour became established, women were excluded from many tasks that had previously been theirs. The skills to make fancy textiles came increasingly from state manufactures and urban workshops in whose hired labour force women had little place. The prestige skills of weaving high-value cloth were mostly taken over by men, whether in workshops or within the household, where the family women span and reeled the yarn for the man sitting at the loom. The only weaving that was associated with women alone was the making of humble cotton homespuns for subsistence needs. In sum, women had lost control of a respected domain of knowledge and competence.

Of course technical knowledge and competence do not necessarily translate into high social status or greater autonomy. A ruling class may well exercise very strict control over the artisans who produce the luxury goods that symbolise their status. Angela Sheng's paper cites the case of skilled women weavers who were treated by Warring States rulers as chattel slaves. Many centuries later, when the Mongols put large numbers of Chinese subjects to the sword, they spared all the craftsmen—but reduced them to the status of hereditary, unfree families under direct state control (Tong 1981). But in considering the implications of new representations of textile skills in late imperial China, I think we have to set this work in the context of the production, not of luxuries, but of the basic goods that an average, non-elite household depended on for its living and for the fulfilment of its obligations towards the state.

To evaluate the changes in the social value of women's work, one factor we must take into account is the changes that resulted in women's fiscal contribution as subjects of the Chinese state. Until the mid-Ming all households were taxed in textiles as well as grain, and women's distinct role as producers was officially recognised; fiscal policy not only institutionalised a clear complementary division of productive labour between the men and women of a household, it also mandated the involvement of women of all classes in textile production. Post-Song, however, the possibility of substituting a monetary payment became increasingly common, allowing for a divergence between the productive demands on peasant women who had direct access to the raw materials for textile production, and on urban dwelling and elite women, whose households could substitute cash for their productive labour. After the economic reforms of the late sixteenth century taxes in kind were eliminated, so that even peasant households might give up basic production of grain or textiles for whatever commodities offered comparative advantage. The gender roles previously institutionalised by state fiscal policy no longer retained their meaning, and women's contribution to the state, insofar as it still existed, was masked in the new unity of household contributions in cash.

At the level of earning power, the increasing monetarization of the economy coincided with the development of new divisions of labour in which women's

productive role became subsidiary and marginalized. In the case of subsistence production of cotton, although such labour clothed the family, substituting for otherwise unavoidable expenditure, it did not generate cash income. Since the families in question were no longer called upon to put a monetary value on this female product, it may well have counted in their eyes as merely a subsidiary activity, as it has in the eyes of modern economic historians (Chao 1977: 28). In the case of commercial production, the value added by spinning and reeling was much less than that added by weaving yarn into cloth (Bray forthcoming). At the same time it is important to note that these changes take place within the context of a broad trend of social differentiation, in which levels of exploitation increased for men as well as women—the working woman's loss was not her husband's gain, but women ended up at the lower end of the scale. In workshops employing hired labour, it was clear that women reelers and spinners earned less than male weavers. In the case of household production, the shift to male involvement meant that the value of women's work was no longer distinct but became subsumed into overall household earnings.<sup>16</sup>

Furthermore, an important class difference between women emerged. In earlier times women of all classes span and wove, and women of all classes could produce quality cloth like silk tabby. By the Ming-Qing transition elite women's involvement in productive activities was becoming increasingly symbolic.<sup>17</sup> So lower-class women were distinguished from their female social superiors by their need to work at textiles, at the same time as they were subordinated to their husbands or fathers by the new division of labour within the household. These changes, I believe, contributed to new representations, popular and elite, of what a woman's role should be.

Throughout Chinese history the role of woman as mother has always been honoured and idealised. Sinology has tended to focus on this role and to conflate female social success in China with the bearing and rearing of sons.<sup>18</sup> I think it

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<sup>16</sup>Hence no doubt the alacrity with which many unmarried women took up work in Western-style textile mills in the late nineteenth and early twentieth centuries (see So 1986; Stockard 1989). The rapid spread of the Jacquard loom in rural production in Republican China in the 1920s and 1930s was also important in reclaiming weaving as a female occupation (Chao 1977).

<sup>17</sup>Their role as managers both of labour and finance has frequently been underestimated, as recent work by Joseph P. McDermott shows. Yet in the late twentieth-century West we probably accord more importance and status to this kind of responsibility than Chinese elite men did.

<sup>18</sup>This is no doubt connected to the biological essentializing that has marked constructions of womanhood in the industrial West. Tani Barlow (1994) argues that there was no parallel essentializing of “the female” in imperial China, that a woman's identity, like that of a man, was multivalent since it was construed in terms of a web of relationships.

is possible to argue that the role of wife was equally important; however, the balance between the productive and the reproductive, the material and the symbolic value of that wifely role shifted significantly during the period under discussion.

The material value of an elite wife's work and skills is made explicit in early texts on conjugal relations such as the *Liji*, where it is straightforwardly equated with the production of textiles. Fiscal policy up to the mid-Ming inscribed the value of female textile work in all classes. Anecdotes describing how a wife or concubine contributed by her skills, inventiveness and diligence to the fortunes of her family form a recurrent theme in earlier literature, but are absent in later texts; by Ming-Qing times working-class wives may still help their husbands, but they are no longer depicted as independent economic or productive agents. In late imperial elite ideology, as expressed in such genres as "family instructions" (*jia xun*), we see references to wives as managers of resources but not as earners. At the same time there is an increasing emphasis on the wifely virtues as a *moral force* crucial to maintaining the social order; it is interesting to note that spinning and weaving are mentioned as a means of teaching one's daughters frugality, diligence, and respect for the hard physical work of the lower classes which otherwise they would not experience.<sup>19</sup>

In the course of the Song dynasty the neo-Confucian philosophers elaborated new doctrines of social morality that emphasised women's dependence on and subordination to men. Educated elites were the first to follow the new precepts, but by the sixteenth and seventeenth century most of the ideas, including the conception of gender relations, had been internalised at every level of society. I do not believe the progressive decline in women's control of knowledge and the social value of their work that I have just described determined these beliefs, but I do think it provided fertile ground for doctrines representing women as materially and intellectually dependent. Furthermore, the Song institutionalisation of patrilineal descent groups and virilocal marriage helped create a cultural orthodoxy which represented a woman's primary function as marrying and bearing heirs for her husband's lineage, and I feel sure that women's progressive loss of productive autonomy provided important reinforcement of this maternal stereotype.

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<sup>19</sup>The moral contribution of wifely virtues to the social order was a recurrent theme from pre-Han times, but became particularly conspicuous as a key theme in works of morality written for elite or aspiring families during the period of political instability and social flux of the early Qing (Mann 1991).

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