Work and Gender in the 19th an 20th Centuries – Japanese Examples in a Comparative Perspective

by

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The theme of this session will attempt to clarify how work boundaries and definitions change through time and space. This paper will primarily focus on how boundaries have been drawn between genders, their differences and their respective definitions related to work and the workforce.

The perception of work depends on which gender does the work, and the meaning associated with the work differs depending on gender, even in the case of the same work. This results in gender specific work that takes on a different social value. The same generalization can be made about the workforce.

This paper will examine these gender specific differences through a comparative analysis of the German and Japanese weaving industries in the home industry period, specifically the period of transition from the home industry to mechanized factory production. In Germany, primarily males engaged in weaving in the home industry period, whereas females in Japan performed this same work during the same period. The comparison of the weaving industries in Japan and Germany therefore provide a clear example of how these gender differences affect the characteristics of this work and the definition of the workforces.

German Male and Japanese Female Workers in the Home Industry.

Here, the development of the German and Japanese weaving industries will be outlined using statistical data of male and female workers. Important points for comparing the German home industry with Japan are as follows.

In Germany, the weaving industry was initially made up of municipal handicraft businesses that were regulated by "ZUNFT", namely guild laws. These regulations excluded women from participating in this business. In the

18th Century, the weaving industry was involved in merchandise production and it expanded into the countryside initially as a second job. Weaving gradually replaced the primary business of the household, which normally was carried out by the male head of the family[1]. In the German rural home industry the labor of all family members was required. The standard structure of these rural home businesses involved the husband being in-charge of weaving and the wife and children carrying out an assistant role. However, in many instances the wife also engaged in weaving. In households where there was more than one loom, often there was mix of journeymen and apprentices. When an apprentice had reached a certain level of expertise, he would move on to a loom, and in many cases the wife would have to give up her loom and return to her assistant duties[2]. The percentage of women working in the home industry in Germany at this time was low, according to Table 1. Judging by the ratio of female workers, we see that men dominated the home industry in Germany.

Table 1. Ratio of Women Workforce in the German Home Industry (1882)

Kinds of cloth	Silk (including velvet)	Wool	Linen	Cotton	Mixed weaving
Ratio of women (%)	24	16	35	26	19

Source: Robert Wilbrandt, *Die Weber in der Gegenwart, Sozialpolitische Wanderungen durch die Hausweberei und die Webfabrik*, Jena, 1906., p.39.

The rural home industry in Japan began in the mid 18th Century with silk weaving, and expanded to include commercial cotton weaving production. In spite of a temporary recession, the volume of weaving production in the Meiji period (1867-1911) rapidly increased due to an increase in domestic demand, which was stimulated by active overseas trade and the spread of a market economy. This increase in demand also aided the remarkable development of rural home industries[3].

After the Meiji period, the forms of organization in the weaving industry can be classified into 4 categories: factories with more than 10 workers, home enterprises (to include small manufacturers with less than 10 workers), manufacturers/ entrepreneur of putting out system and putting-out weavers. The former three classifications are generally termed independent enterprises. Table 2 indicates the number of weaving sites by management form per household

unit. The most numerous among these weaving sites was the putting out weavers who were utilized by manufacturers on a per piece wage base.

Table 2. Number of Weaving Sites

	Independent Enterprise				Putting-out Weaver Ratio
Year	Total number	Factory (more than 10 workers)	Home Industry (less than 10 workers)	Manufacturer, Entrepreneur of putting-out system	
1877		76			
1888		278			
1898		926			
1902	144,599	1,618	142,957		241,384 (62.6%)
1907	160,818	3,701	139,677	17,440	329,108 (67.2%)
1911	161,045	3,806	145,201	10,690	283,733 (63.8%)
1919	299,430	7,075	277,449	14,906	257,142 (46.2%)

Source: Takako Sanpei, *Nihon Kigyoshi* (Japanese Weaving Industry), Tokyo: Yuzankaku 1961, p.208. Kamitachi, op. cit., p.11.

Both Germany and Japan incorporated the same putting out system. Farmers would also engage in piecework weaving using a borrowed loom to generate a second income, and in 1905, the average number of workers per household was 1.3[4]. Although there are no statistics available for the average number of putting out weavers per household prior to 1901, there is no doubt that these weavers were the most prevalent group. The home industry for purposes here, is normally defined as “a family business where the family members engage in the business of weaving, however this definition also includes additional non-family members up to a total number of 10 workers”[5].

By 1905, the average number of workers in the home industry was 1.7 workers per household, which was only slightly more than the number of workers at the weaving site of putting out weavers. The majority of independent home industries at this time, solely engaged in weaving as their primary source of income, while a small group maintained weaving as a side business[6]. The difference between putting out weavers and home enterprise is that home

enterprises belong to the independent management category as they engaged in the purchase of raw material, production and sale of finished product.

The definition of “cottage industry” involves a home business supported by family labor and dependent weaving sites of putting out weavers. Putting out weavers and independent home industry, although differ in management form, belong to the same category as they both utilize family labor and the actual weaving process is carried out at home. The percentage of weaving places in Japan in this type of “cottage industry” in 1905 reached 92.5%, and the comparative percentage of workers in Japan who worked in this type of “cottage industry” was 73%[7]. “Cottage industry” was the basic business structure for the weaving industry up to the 20th century. According to Table 3, workers in these cottage industries were mostly women. This is completely the opposite situation to the rural home industry in Germany.

Table 3. Number of Male and Female Workers Classified by Weaving Sites(1911)

	Number of weaving sites	Number of male workers	Number of female workers
Factory	5,106	15,554	117,318
Home Industry	139,705	12,649	217,793
Manufacturer, Entrepreneur of putting-out system	11,854	5,498	30,120
Putting out weaver	294,150	7,877	373,669
Total	490,815	38,578	738,899

Source: T. Sanpei, *Nihon Mengyo Hattatsushi* (History of the Development of Japanese Cotton Industry), Tokyo; Keioushobo, 1941, p.232.

Another difference is that the German home industry developed initially as a side job to farming to become the main business. Although this carried major importance for the weaving industry, a large portion of Japanese farm households maintained weaving as a side job. In the rural areas during the pre industrialization period in both Germany and Japan, household labor was

allocated as required, and it was expected that all family members cooperate to support their livelihood. All family members participated in the family weaving business in Germany, but in Japan the work was divided according to gender, with men mostly involved in farming and women in weaving. The occupational statistics taken from the silk weaving district known as GUNNAI WEAVING (see Table 4) typically illustrates this point.

Table4. Agriculture, Weaving (Silk Spinning), Number of People Registered as Their Main Occupation: Nanboku Turu Gun (1879)

		Crops	Weaving (silk spinning)	Total
Minami Tsuru Gun	Men	11,476	48(6)	11,524
	Women	5,893	5,568(628)	11,461
	Total	17,369	5,616(634)	
Kita Tsuru Gun	Men	9,576	42(3)	9,618
	Women	1,604	8,044(2,070)	9,648
	Total	11,180	8,086(2,073)	

Source: S. Nishikawa/ T. Abe, *Nihon Keizaishi 4. Sangyoka no Jidai* (Japanese Economic History 4. The Period of Industrialization)", Tokyo; Iwanami Shoten, 1990, p87

Although the total number of male and female employees is almost identical in both the northern and southern regions, the female workers are mostly wives of farmers. Almost all of the male workers engaged in agricultural work and less than 0.5% of males engaged in weaving as their main occupation. In the southern district approximately 50% of female workers engaged in agricultural work and the remaining 50% in weaving, as compared to the northern district where weaving was predominant. Almost all men who worked in the textile industry were connected with the dyeing process and had nothing to do with the actual weaving itself. Weaving in cottage industries in the rural areas was a woman's domain.

Traditionally in Japan and Germany it was a woman's job to make the clothes for the family. However, in Germany when weaving evolved to a market economy, the job itself transferred from women to men. In Japan weaving remained a woman's job, whether it was for family or for the market, or produced at home or in a factory.

The Male Domain of the Craftsmen

Although weaving almost exclusively remained as a job for women in Japan, there is one exception, the world of high quality handicraft weaving. This professional weaving skill was carried out by males in the Nishijin district of Kyoto, famous for it's production of superior silk weaving.

Initially the Nishijin District incorporated an apprenticeship system. The typical term of apprenticeship was between 10 and 12 years, and if the apprentice had developed a sufficient level of skill and was granted a guarantee from his master, he could then begin his own business as an independent craftsman. However, like the German 'ZUNFT' regulations only males could become artisans.

From the mid 18th Century, as it was becoming more difficult to start one's own business as an independent master, artisans and apprentices in the middle of their service term, left the Nishijin district. The effect of this move was the transference of Nishijin weaving techniques and the development of new weaving districts, including: Kiryu, Ashikaga, and Yonezawa to name a few. The apprenticeship system was not employed in these new districts. The manufacturers of Nishijin attempted to protect their privileged status in Kyoto by exercising guild laws, however, they were unable to oppose the market principles and even the apprenticeship system began to weaken at the beginning of the 19th Century.

Silk weaving in the Kiryu district at the beginning was mainly carried out by men who produced high quality silk cloth; however, many women gradually began to take up this occupation and produced a standard grade cloth with widespread application, which gradually replaced the quality silk cloth of the district[8]. One reason for this change may be related to the lack of guild laws. In these new districts, this work did not develop as male crafts, but mainly as female putting out weaving.

Even after the breakdown of the apprenticeship system, Nishijin continued as a handicraft center and remained male dominant in the production of the highest quality woven products. For example, in 1879 in the Nishijin

district, of those weavers who engaged in special patterned weaving, an advanced skill that required a long service term for qualification, 3,664 were men and a mere 212 were women[9]. Conversely, almost all relatively plain silk crape and cotton was produced by women. By 1910, the percentage of female workers exceeded 95% in the Japanese weaving industry[10], however, only ten years earlier in the Nishijin district, only 54% of the weavers were female, indicating an extraordinarily high percentage of male weavers[11]. These statistics do not included independent weavers in the worker category, and the actual number of male workers is thought to be much higher. Although both men and women engaged in weaving in the Nishijin district, boundaries were drawn between genders, and men were attributed with a much higher value as “superior quality weavers”. An example of this can been seen in a national “survey of factory worker conditions”, and it was noted, "Only men can create the exquisite weaving of Nishijin”[12]. This attitude together with the high esteem placed on male weavers, effectively provided the basis for the natural determination of genders[13]. This allowed Nishijin to acquire a privileged and special status within Japan's weaving culture. They established a world of professional craftsmen, and the meaning of "work" in weaving was considered "only for men" or "work appropriate for men".

Even in Germany crafts were exclusively male dominated. Guild laws were implemented for silk and linen weaving, and only men were permitted to attain the prestigious status of master weaver[14]. For cotton weaving where the guild regulations did not apply, the gender hierarchy was not as clear as in the case of silk and linen and many professional weavers would use the title “master weaver” although they had not officially acquired the title[15]. This resulted in a group of pseudo-craftsman. It is important to note when comparing the German model to Japan that the category of “craftsman or artisan” included the general meaning of weaver, probably due to the fact that males were in charge of weaving in Germany. The influence this had on the weaving industry will be examined later.

Working as Wives - Weaving as a Side Business in Agrarian Households

How was the female workforce, which was primarily made up of weavers, characterized? To examine this point this chapter will focus on putting out weavers who were the most widespread group.

Often in weaving districts mothers or mother-in-laws would teach weaving skills to their daughters, or girls would go into service for a manufacturer in order to acquire skill, and the term of the service was for a period of three to seven years. During this term of service, the manufacturer would provide the trainees with food, clothing, shelter and spending money. At the beginning trainees were required to perform preparatory work such as spool thread or stock the creel, and later would learn weaving skills. A portion of wages for this work was usually paid as an advance and not to the workers themselves, but to their fathers[16]. After completing the training period, these girls would either continue at the manufacturer, or weave out of their homes using either their own handloom or a borrowed loom from the manufacturer. After marriage these women would continue to work out of their husbands home.

Regarding children, whether they would enter a manufacturer, and how long they would work was a decision for the parents, and it was natural for daughters to be expected to contribute to the livelihood of the family. There is a lyric, "ten years of service for the parents"[17], from a weaving song of the Chichibu weaving district, and it indicates the typical custom of poor families to send their daughters into service so that they would have one less mouth to feed. Of course, even after acquiring weaving skills, whether these girls continued to work at the manufacturer or worked out of their own home, their earnings went to the family. The decision of where to work after the service term was part of the financial planning strategy of the family, and was based on how necessary the daughter would be on the farm or how much could be earned by weaving, and if there was sufficient space to place a loom.

The position of girls who entered into service at a manufacturer was similar to that of an apprentice, however these girls did not receive this status and were called trainees or servants[18]. These weavers did not begin a career of

weaving with the expectation that they would eventually own their own business; their futures were decided for them and based on the family needs as they were a member of the family. The skills of these girls were seriously considered as an asset to supplement the family income, but not to become a "professional artisan"

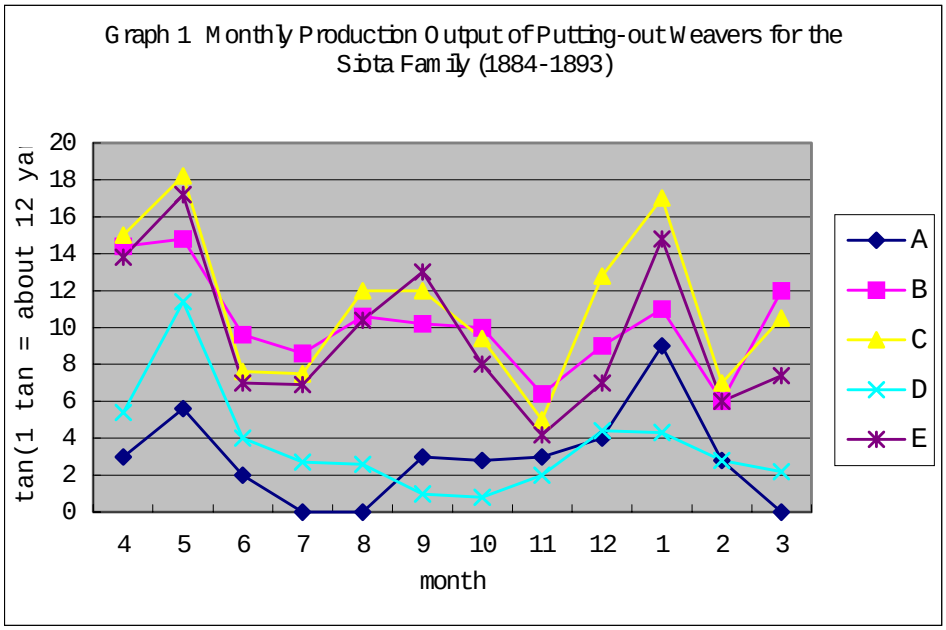
The social conditions of a cotton weaving district are described in the 1899 book, "The Lower Classes of Japan" by Yokoyama Gennoske.

> "In this district, weaving was the most important social qualification for women. In the middle and upper classes needlework was considered important, but in the lower classes learning weaving skills was held high in a young girls education. If she did not have these skills, she was regarded as not having the proper qualifications to fulfill her duties as a women, and her chances at marriage became extremely slim. "[19]

More so than cooking and housework ability, or basic learning or etiquette, weaving skills were required for women of this weaving district in this time, and it was considered a social requirement in order to live[20]. Weaving was the decisive factor in determining the value of women. How weaving and living for women was strongly connected was passed down through the oral history of the cottage weavers at this time. "A long time ago 'women's work' meant spinning and weaving, and if a woman did not have these skills, then she was not acknowledged as being mature (a weaver born in 1885).[21]" "A condition of marriage was to be a good weaver and to be able to work hard, and in order to ascertain a woman's ability, people would go around the village asking about the woman's weaving ability.[22]" "Whether a woman was proficient or inferior at weaving determined their value as a wife, and there were some instances of divorce because a woman could not weave (Ms.Maeda).[23]" Based on interviews with cottage weavers of this time, it is clear that even though a women as a weaver earned a significant sum of money, she was not perceived as an established professional, but as a good wife.

During the farming season these women would engage in farm work. Graph 1. indicates the monthly productive output of these putting out weavers

for a manufacturer in the Ashikaga region, which is one of the most famous weaving districts in Japan, and is divided by land size. We can clearly see that the total output changes depending on the season, and weaving production decreases during the months of planting and harvesting. During this time, the women are helping out on the farm and are unable to weave.



Source: Wasedadaigaku Keizaishi Gakkai (Association of Economic History at Waseda University) (ed.), *Ashikaga Orimonoshi* (Weaving History of Ashikaga), Ashikaga; Ashikaga Seni Dogyokai, 1960, p.687.

If there was enough labor for farming, or if weaving was considered viable, then wives and daughters would solely concentrate their time on the production of cloth[24]. Housework was done usually by women, however there were occasions where they were released from these duties. In order to fully concentrate on weaving, often the mother-in-law would do the housework, or they would hire someone to do this job. If there were young children in the house, even young boys, they were sometimes instructed to look after the infants[25]. In the case of those farms that did not have help to look after young children, the children were tied to the loom[26], often not breast fed, even though they cried for their mothers[27]. Even in the 20th century, these rural women had nothing in common with the moral code of middle class women of the time who were primarily responsible for the children and the house. Instead, all family

members, with the exception of young children were considered as important labor to maintain their family livelihood. The weaving work done by women was integrated into the family economy.

Land was the most precious possession for rural families, and these putting out weavers did not live in the poorest of households. Their houses were spacious enough to place a loom, and through farming and weaving were able to maintain their livelihood.[28] It was unthinkable to have to give up their land, and moving the family to the cities was something to be avoided at all costs[29]. Consequently, putting out weaving was considered important in order to continue the family business of the farm, allowing them to remain on their homestead. Therefore, putting out weaving was placed as a secondary form of income to the main job of the farm, and this was another reason why these competent weavers were appreciated as good wives.

Weavers proudly spoke of when they completed their term of service at the manufacturer and received a sewing chest as reward for their talent, and of when they returned home wearing a new kimono[30]. Although they were proud of how helpful they had been to their families, they did not consider themselves as skillful professional artisans. The comments of one weaver born in 1888 were that “a woman's skill was all important, and that the affairs of the home were decided by this skill[31]”. This attitude probably reflects this woman's position as a wife.

Common expressions of the time about weaving clearly show us what meaning was applied to this work. For example, "to become a mature woman you must untangle a knot without cutting the thread, and is a basic requirement of marriage,[32]" or " a wife needs a good head and patience to straighten a tangled thread. If you can untangle a thread, your home will be in good order.[33]" Another common expression was " when looking at a thread, if you can imagine the cloth and the stripe pattern falls in place as expected, then you will get along with your mother -in-law or your home will be in good order.[34]" It was also said, "If you don't compose yourself , your cloth will be affected. Consequently, if you continue to weave everyday, your family life will be trouble less[35]". Here, we can see the connection between weaving and family life is strongly emphasized.

Weaving was not only a job for women, but it acquired a gendered meaning of “a wives job". The rural community weaving culture was strongly perceived as “a woman's culture” and particularly associated with wives.

For farmers, weaving was an indispensable job to maintain their livelihood, yet it was not assigned a high social value. The discourse at the turn of the century in Japan emphasized the differences between genders as strong vs. weak, independent vs. dependent, comprehension vs. patience. National government officials reported for weaving in the rural communities, that the “labor for the weak, namely women and children and the elderly could be utilized”[36], and therefore weaving came to be associated as a job for the “weak”. A journalist at this time considered that “it was a necessity for industrial work requiring great skill and involving complicated technologies to be performed by men[37]”. Looking at this from the opposite side, it suggests that weaving could be performed by women implying that it was “easier work”. Moreover, weaving as a woman’s territory and as a side job in agricultural households, was not socially acknowledged as “professional artisan work”.

Mechanization and Gender

The change over from the handloom to the mechanized powerloom in Germany and Japan did not advance smoothly, and from a technological and economic perspective mechanization was slower than originally anticipated. In Germany at the turn of the century, the silk weaving section was finally mechanized[38]. In Japan the powerlooms did not become widely used until the mid-1920's[39]. This late introduction in Japan and Germany was due to the gender specific nature of weaving.

German home weavers who owned their own looms shared a similar identity as independent craftsmen[40], and they actively endeavored to increase the social value of weaving work and the master weaver. For example, after the 1848 revolution, the “weaving Innungen” was established and it's regulations restricted its membership to men of a certain age to have either passed the journeyman examination and to have worked as a journeyman for a minimum of

3 years, or to have passed the master weaver examination[41]. For these weavers having to work as machine operators in a factory deprived them of their autonomy and pride as ”master weavers”, and they felt that their professional qualification had been degraded. In opposition to this, they tried to stop the further mechanization of the weaving industry by demanding the introduction of protective regulation for hand loomed goods and a special tax on products made by powerlooms, and they petitioned to limit mechanization and for a ban on female labor in the industry[42]. Further they regarded cheap female labor, which had rapidly increased with the introduction of mechanization, as “dirty” competition and their hostility toward the situation intensified[43]. However, due to this problem their wages decreased, and more than anything else, they felt that cloth weaving had lost it's “masculine character”.

The advancement of mechanization by 1910 in Japan was not nationwide and was restricted to the suburban areas where wages for piecework weavers was relatively high. Many manufacturers were reluctant to introduce powerlooms because mechanization required a considerable capital outlay for equipment. They tried to compensate for the low productivity of hand weaving by lowering their wages, so that their products could remain competitive[44]. In 1927, it was recorded in a department of social affairs survey that “women and children and the elderly were relatively easy to get to work as home weavers as they typically were unable to work outside of the home”[45]. Finally, in the twenties the advancement of mechanized weaving spread throughout the nation, and with the introduction of electricity to rural communities, women could continue weaving at home as putting out weavers with the aid of small electric looms[46]. The timing of mechanization was affected by the gender related characteristics of this work, resulting in the image of a wife's side business in Japan and professional male craftwork in Germany.

<u>“Master"/ "Expert" (possessing the highest level of skill) - Characteristics of the Workforce</u>

Within the Japanese textile industry, scutch and dyeing were considered to be male occupations. The definition of workers in these two sections were completely different as compared to female weavers.

Tojo Yukihiko examined the situation of labor and management between 1888 and 1908 which was prior to modern labor management relations. Here, workforces were classified into 3 categories: “same occupational group”, “supplementary earners”, and “workers at poverty level”[47]. The “same occupational group” was a closed group consisting of masters and subordinate workers. At this time in Japan there wasn’t a clearly institutionalized regulatory system like the craft unions in the west. However there were traditional regulations for male occupations like plasterers, carpenters, and heavy industry jobs such as turners and shipbuilders. The skills required for certain kinds of occupations were acquired within and monopolized by the groups. The “same occupational group” had a definite hierarchy beginning with apprentice, advancing to journeyman and finally master and they established a closed society similar to the artisan world[48].

According to Tojo’s classifications, dyers and scutchers of the textile industry belonged to the “same occupational group”. In other words, men would work as journeymen after completing an apprenticeship and use this skill to support themselves. There were three possible avenues for workers of “same occupational group”. If a man worked in a family business then he would eventually inherit the business, or a worker could begin his career as a journeyman and later have his own business as a master. The last possibility was to continue to work as journeyman until retirement. However, workers of “same occupational group” had an artisan identity and obeyed the occupational moral code.

Weaving was not included in the category of “same occupational group”. But this did not mean that weaving did not require any skill. Putting out weavers primarily made hand loomed cloth for kimonos that were destined for the Japanese domestic market. This kind of hand weaving involved the weaving of complex patterns and stripes, which was considerably different to the mass production cloth for export produced in the factories. If this were in Germany,

many of these types of cloths would be considered the work of proud craftsmen. Weaving in Japan did not belong to “same occupational group” as it was not performed by men, rather it has come to be associated as a job for women.

As previously mentioned, many women involved with putting out weaving went into service in order to learn a skill and here note that the reality of which is no different than a man going into an apprenticeship to qualify for a certain occupation. However the objective of these men was to earn a living and to be independent, which was another criteria for workers of “same occupational group”. This is in contrast to women who came back to their families and engaged in weaving when it was necessary, and their labor was considered to supplement the family income. Even though the skills were passed down to these women, the idea to qualify them as professional artisans or master weavers was not a consideration from the beginning. Women weavers were in the literal sense “supplementary earners”.

Weaving could only be considered as a side business subordinate to the main family business. As weaving work was dependent on the allocation of labor in the house which was again dependent on the circumstances of the main work of the house, these woman did not become artisans. Weaving work was not only work for women, but the work itself took on a gender specific character, which in effect acquired a feminine association. As men considered weaving as work for women, they would not have anything to do with this type of work. An artisan community was formed for the dyers and scutchers in the same textile industry and the possibility existed for them to have a skill and achieve master status. However, for female weavers, it was impossible to achieve such a social status, and even though they had attained a high level of skill, they were only considered excellent at their work.

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[1] As for the German rural weaving industry, see Peter Borscheid, *Textilarbeiterschaft in der Industrialisierung. Soziale Lage und Mobilität in Württemberg*, Stuttgart 1978; Karl Emsbach, *Die Soziale Betriebverfassung der rheinischen Baumwollindustrie im 19. Jahrhundert*, Bonn 1982; Hans Medik, *Weben und Weberleben in Laichingan 1650-1900. Lokalgeschichte als Allgemeine Geschichte*, Göttingen.

[2] Emsbach, op.cit., p.130.

[3] Concerning the development of production output during the first half of the Meiji period, see Takamasa Ichikawa, *Nihon nousonkougyoshi Kenkyu. Kiryu-,*

Ashikagaorimonogyo no Bunseki (en. Research of Japanese Rural Industy. Analysis of Weaving Industry in Kiryu and Ashikaga), Tokyo:Bunshindo 1996, p.128, Graph 4-5.
[4] Haruki Kamidachi, *Meijiki Nousonorimonogyo no Tenkai* (en. Development of Rural Weaving Industry in Meiji Period), Tokyo:Tokyodaigaku Shuppankai 1975, p.10.
[5] Ibid., pp.10,11.
[6] Ibid., ;Masayuki Tanimoto, *Nihon ni okeru Zairaitekikeizaihatten to Orimonogyo. Shijokeisei to Kazokukeizai* (en. Traditional Economic Development and Weaving Industry. Formation of Market and Family Economy), Nagoya: Nagoyadaigaku Shuppankai 1998, p.265.
[7] Ibid., p.264.
[8] Takako Sanpei, *Nihon Kigyoshi* (en. Japanese Weaving Industry), Tokyo: Yuzankaku 1961, p.208.
[9] Ibid., p.211.
[10] Ibid., P.485.
[11] Noshomusho Komukyoku Komuka (en. Ministry of Agriculture and Commerce, Department of Industry, Industrial Section), Kazuo Ogouuchi(comment), *Shokko Jijyo* (en, Factory Workers Conditions), Tokyo: Koseikai 1971(revived, first ed. 1904), p.170.
[12] Ibid.
[13] At that time because the women's protective laws were being promoted, discourses pointing out gender differences appeared in abundance. See Toshiko Himeoka, Gender and Work. Constitution of Women's Protective Laws in Japan and Germany, in: *Shisou*(Thought), No.898, 1999, p.45-74.
[14] Concerning the relationship between the German weaving industy and craftswork, see Karin Zachmann, Männer arbeiten, Frauen helfen. Geschlechtersspezifische Arbeitsteilung und Maschinisierung in der Textilindustrie des 19. Jahrhunderts, in: K. Hausen(Hg.), *Geschlechterhierarchie und Arbeitsteilung. Zur Geschichte ungleicher Erwerbschancen von Männern und Frauen*, Göttingen, 1993, p.71-96; Canning, Kathleen, *Languages of Labor and Gender. Female Factory Work in Germany 1850-1914,* New York, 1996, p.16-84.
[15] Emsbach, op.cit., p.223.
[16] Mitsusaburo Inoue, *Hataoriuta no Onnatachi. Kikigaki Chichibumeisenshi* (en. Women and Weaving Songs. Oral History of Chichibu Meisen Weaving), Tokyo: Tokyoshoseki 1980, p.76.
[17] Ibid., p.37.
[18] In official statistics the term "apprentice " was used, but this meant no more than "go into service". It was different from the term "apprentice" as in "master qualification system".
[19] Gennosuke Yokoyama, *Nihon no Kasoshakai* (en. The Lower Classes of Japan), Tokyo: Iwanamishoten 1949(revived, first ed. Tokyo: Kyobunkan 1899), p.306. This district is Niikawa region in Toyama Prefecture. The weaving industry in Niikawa was declining in the time period of Yokoyamas survey, but his claim could be true in other weaving areas.
[20] Ibid.; Sadako Fukui, *Momen Kouden* (en. Oral History of Cotton), Tokyo: Hoseidaigaku Shuppankai 1984, p.89.
[21] Ibid., p.178.
[22] Ibid.
[23] Fukui, op. cit., p.97.
[24] See Tanimoto, op. cit., pp.447-451.
[25] Ibid.
[26] Fukui, op. cit., p.97.

[27] Ms. Ise Inoue born in 1887 explained: “Even though my baby cried, I closed my eyes and didn’t breastfeed him. I continued weaving till I finished the pattern, because I didn’t want to weave less than the daughter of my neighborhood did. This narrative suggests that it is more important for her to be appreciated as “a skillful weaver” than to be “a good mother”. Inoue, op. cit., p.155.
[28] Sanpei, op. cit., p.465. Daughters from very poor families went into service to manufactures in order to learn weaving skills, but they didn’t come back to their families. They continued to work in manufactures or factories.
[29] Mikio Sumiya, *Nihon no Rodomondai* (en. Problems of Works in Japan), Tokyo: Tokyodaigaku Shuppankai 1964, p.26.
[30] Inoue, op. cit., pp.100, 117-118.
[31] Fukui, op. cit., p.190.
[32] Ibid., pp.175-176.
[33] Ibid., p.175.
[34] Ibid., p.176.
[35] Ibid.
[36] Originally reported in the “Survey on Side Businesses of Farming Households” published by the Ministry of Agriculture and Commerce. Cited from Sanpei, op. cit., p.235.
[37] Yokoyama, op. cit., p.241.
[38] In 1880 in Silk weaving district Krefeld, in Rheinland, there existed only 800 powerlooms, while 34,000 handlooms were operated. Afterwards mechanization progressed so rapidly that the number of powerlooms increased in 1902 to 10,000. In contrast, the number of handlooms decreased to 6,000. Heinrich Braun, *Der Übergang von der Handweberei zum Fabrikbetrieb in der Niederrheinischen Samt- und Seiden-Industrie und die Lage des Arbeiters in dieser Periode*, Leipzig, 1906, p.34.
[39] Sanpei, op. cit., p.417.
[40] Jochem Ulrich, *Industrie und Gesellschaft am Niederrhein. Soziale Entwicklungen im industriellen Umbruch. Die Anpassungskriese in der niederrheinischen Textilindustrie dargestellt am Gebiet der heutigen Stadt Viersen 1890-1913*, Köln 1986, p.34.
[41] Braun, op. cit., p.100.
[42] Ibid., p.116f. This petition was not accepted.
[43] The participation of women in the weaving industry was only 29% in 1882, and by 1895 it had grown to 40%, mainly because of the expansion of factory work caused by mechanization. Especially in the factories with more than 20 employees, the ratio of female workers reached more than 50%. Wilbrandt, op.cit., p.39.
[44] Takeshi Abe, Men Kogyo (en. Cotton Industry), in: S.Nishikawa/Abe(ed.), *Nihon Keizaishi 4. Sangyoka no Jidai* (en. Japanese Economic History 4. The Period of Industrialization), Tokyo: Iwanamishoten 1990, p.207.
[45] Cited from Sanpei, op. cit., p.588.
[46] Abe, op. cit., p.208.
[47] Yukihiko Tojo, *Seishidomei no Joko Torokuseido. Nihon Kindai no Henyo to Joko no “Jinkaku”* (en. Registration System of Factory Girls for the Union of Silk Reeling. Changes of Japanese Modernity and “Personality” of Factory Girls), Tokyo: Tokyodaigaku Shuppankai 1990, pp.417-452.
[48] Ibid., pp.424-427.