What was it like to be a 'boiled octopus' in the silk mills of Japan before the First World War? Janet Hunter looks at the life and conditions of the women who bore the brunt of Japan's rapid industrialisation.

It is easy to view the growth of Japan's economy over the last century as an unmitigated success story. Notwithstanding the debacle of 1945, Japan's current position as an economic superpower bears witness to the country's status as the only non-Western nation to acquire both a modern industrial sector and an empire before the Second World War. However, these undoubted achievements too often conceal the problems which Japan, like other late-developing countries, faced, and the burden which rapid industrialisation placed on her people. Among those who paid a high price for national growth were industrial workers.

As Western style factories and the mechanisation of production spread in the late nineteenth century, tens of thousands of individuals, mostly from rural backgrounds, took up factory work. By the late 1920s over 2 million Japanese workers were employed in large, mechanised factories, providing the core of a new, permanent working class.

The silk industry was one of the first branches of industry to be mechanised along factory lines, and throughout the period up to 1929 silk was Japan's most important export. A mechanised cotton spinning industry developed from the 1880s, and by the time of the First World War cotton had become Japan's other major export. These textile exports, by enabling Japan to import capital goods and technology, played a crucial role in the industrialisation process. Moreover, the dynamic success of these industries in both domestic and export markets was the first indicator of the ability of the Japanese economy to compete with the industrialised economies of Western Europe and the United States. At their peak in the 1920s these two industries employed more than half a million workers, over 80 per cent of them female. The growth of a modern industrial sector in pre-war Japan thus depended largely on the labour of women.

Early industrial workers enjoyed relatively favourable conditions. The workers in the first government-owned, model steam-powered silk mill, set up at Tomioka in 1872, were a privileged group. Mostly the daughters of former samurai, they had been persuaded to work in the mill after more conventional recruiting methods had foundered on popular fears of the savage, barbarian habits of foreigners. Workers in other early silk mills, usually in rural areas, tended to be local girls from a range of social origins. Most had prior experience of handicraft silk production within the home, and were anxious to utilise their labour during the slack agricultural season. Workers in the early cotton mills, which were more likely to be located in urban areas, also drew on local residents, both male and female, some of them recent migrants from agricultural areas.

As the scale of production grew, demand for labour increased. Both silk and cotton mills began to try and recruit workers from further afield. The character of the labour force also started to change. The proportion of women from relatively prosperous backgrounds, and of
daily, usually married, workers from the neighbourhood, declined, as did that of male workers. They were increasingly replaced by the young daughters of impoverished rural families. These girls, most of whom were aged between twelve and twenty, were usually housed in dormitories at the mills. Bound by contracts of one to three years, these workers were regarded by employers as short-term, temporary migrants, who were uncommitted to the industrial labour force and would return to their rural homes after a few years to marry. Their motivation for working was assumed to be 'to help the family finances' or to earn pin-money or dowry, justifying employers' payment of low wages.

The growth of the workforce focused attention on working conditions. From the late 1890s graphic accounts of the hardships of mill life shocked many Japanese. A succession of reports, autobiographical accounts and surveys led contemporaries to conclude that many female workers, particularly in the silk industry, were living and working in conditions which were unacceptable. The following extract, written in 1898 by a journalist: concerned to enlighten the Japanese public on the conditions of what he termed the 'lower social strata of Japan', is typical:

When I encountered silk workers I was even more shocked than I had been by the situation of weaving workers... At busy times they go straight to work on rising in the morning, and not infrequently work through until 12.00 at night. The food is six parts barley to four parts rice. The sleeping quarters resemble pigsties, so squalid are they. What I found especially shocking is that in some districts, when business is slack, the workers are sent out into service for a fixed period, with the employer taking all their earnings... Many of the girls coming to the silk districts pass through the hands of recruiting agents. In some cases they may be there for two to three years and never even know the name of the neighbouring town. The local residents think of those who have entered the ranks of the factory girls in the same manner as tea house girls, bordering on degradation. If one had to take pity on just one group among all these workers, it must be first and foremost the silk workers.

There is no doubt that many girls took up textile employment in ignorance of the real conditions which they would face in the factory; and mill owners and their agents were hardly anxious to enlighten them, or their families. A labour journal in 1901 castigated the indirect recruiting system through which most workers were hired:

In order to get cheap workers every recruiting master employs the meanest tricks to catch girls from among simple farming families. This slave dealer, pretending to be a gentleman, goes to a country farmer who knows about nothing beyond tilling the land, and tells invitingly of work in silk spinning and the good wages his daughter can earn. These honeyed words are believed by the simple-minded farmer, and without consulting even his wife nor, of course, his daughter, he enters into a contract with the man; the latter pays him 1 yen as contract money, a sum which has to be repaid twenty times over if the contract is not fulfilled.

Hours were immensely long, especially during the peak season, and one report in 1901 found twelve to thirteen-year-olds sleeping as little as four hours in twenty-four, ending up so tired they could not even eat. A 1903 government report commented:

In one silk area, Suwa, the length of working hours are unequalled throughout the country. Average daily working hours do not fall below fifteen, moreover... working hours are repeatedly prolonged to increase production, meaning that daily working hours are often as
much as eighteen hours. In factories in some areas working hours are fixed by factory regulations so when they want to extend working hours beyond the specified time they often move back the hands of the clock. Where this happens, if one factory's siren announced the end of work at the correct time, girls working in other mills would also know that they should have reached the end of their shift, so all the factory owners have provisionally agreed not to use their sirens.

In cotton spinning almost all factories operated machinery continuously, with workers taking day or night twelve-hour shifts. If a worker's replacement failed to turn up, a worker could find herself working two shifts of her own and someone else's in between, a total of thirty-six hours. Night work continued until 1929.

The conditions were extremely unhealthy. The air was permeated with dust and fumes and the atmosphere was intensely humid. In the silk reeling mills, reelers' hands were constantly exposed to the boiling water in which the cocoons were placed to soften them. Safety conditions were minimal at least until around 1914, and toilets and other hygiene facilities totally inadequate. Workers were frequently penalised for not paying sufficient attention to their work, for taking time off to go to the toilets or for talking to other workers. In the early days many workers were not permitted meal breaks, having to eat their meals next to their machines, often keeping them running.

Many of the dormitories in which workers lived were equally grim. As late as 1923 one writer commented that:

the dormitories for women workers can be described in a single word - pigsty. With the progress of the times and the growth of the [cotton] industry dormitories do appear outwardly to have undergone a complete change. The external appearance of the dormitories and company housing of companies such as Toyobo and Kanebo [two of the largest spinning companies] suggest that inside as well they must be superior to a middle-class residence. However, this is like saying that someone is a gentleman or lady just because they are wearing beautiful clothes.

Many workers slept together in one room, often sharing bedding. One mill reported a single room for over 700 girls as late as 1926. Light and ventilation were usually inadequate, and residents suffered from extremes of hot and cold in summer and winter. The nutritional standard of the food provided was invariably very low.

Employers, particularly in times of expansion like the late 1890s, sought to restrict worker mobility by confining workers to the factory compound and retaining part of their wages. Government inspectors in 1903 reported that in the silk areas:

girls are not at all free to go out of the mill. In the Suwa region, for example, they are normally banned from doing so. If permission is granted because of some mishap, the worker is supervised by an official who accompanies her. When a mill does have fixed times when workers can go out, it is usually for only one hour after the evening meal, with no more than five girls allowed out on any one evening. In mills lacking a bath girls are sometimes allowed out together at a specified time to go to the bath house, but in all cases exit permits usually have to be handed over.
In retrospect, it is easy to see that employers were not necessarily acting in their own best interests by economising on labour and working conditions. As factory recruiters spread their net ever wider, the reputation of some mills went before them, leading to the supply of labour drying up in particular areas. Competition to recruit labour became ever fiercer and costlier, and the lies told to prospective employees and their families about what they could expect ever more exaggerated. The growing costs of securing adequate labour were a drain on finances which employers could ill afford. Even more serious was the damage inflicted by very high labour turnover. In silk, where many employees were on seasonal contracts, some experienced workers did tend to return annually to the same mill; but even here, and throughout the cotton industry, many workers left after no more than a few months. Turnover in some factories was over 100 per cent per year.

Production at the mills suffered from shortages of experienced workers; many workers did not remain long enough to get properly trained or for the mill to recoup their recruitment expenses. Excessively long hours also took their toll, with productivity on night shifts considerably lower than in the day.

From 1 to around 3 am the bodies of the girl workers are like those of 'boiled octopuses'; some are in a dream, some fall asleep at the machines, some are lying down in corners, but even so the supervisors themselves are overtaken by drowsiness and cannot keep effective watch, and the soulless machines turn endlessly.

Conditions at the mill rendered work in general less productive through worker exhaustion, malnutrition and sickness. Employees worked less efficiently than those enjoying better conditions, and took more time off for illness. Sickness among mill workers was exceptionally prevalent, and the high rates of tuberculosis, especially among cotton mill workers, became a national scandal in the first three decades of the twentieth century. The result of these seemingly shortsighted policies towards labour – not that different from many found in nineteenth-century Europe – was that Japanese labour was unproductive by international standards.

Only gradually did some employers begin to think that such management policies might be against their own best interests. For a long while mill owners and managers continued to hold a poor opinion of their workers, often taking the view that the kind of conditions they complained of were no more than they deserved. A 1898 report by the cotton spinners' federation was typical of the general tenor of management attitudes:

Many of the workers now being taken up by a lot of spinning companies are the daughters of poor people, who are almost totally uneducated and ignorant. When such people are brought together, they have no aim of independence and self-management, therefore no concept of endeavour and frugality, and many have no sense at all of saving on a regular basis. So, if they do not spend what's left of their earnings on food and drink, it immediately goes on clothes. They get money with one hand and let go of it again with the other. While they have money to spend they miss work, and live a life of idleness... in fact, many are absent for several days after payday.

Managers argued that the long working hours did not damage the health of workers. One commented:
The lifestyle of Japanese workers is undisciplined; they draw almost no distinction between work time and leisure time. They cannot even dream of devoting themselves wholeheartedly to their work during working hours in the manner of European and American workers. For that reason even though working hours may be longer we do not need to worry that this will cause overwork, and any legal attempt to limit working hours must take account of this fact.

The view that employers stood to benefit if they looked after their workforce better was rarely heard prior to the First World War, although the rhetoric of employer paternalism, and the concept of employers acting in loco parentis was frequently voiced. Not until the 1920s is there much concrete evidence of employers’ drawing the connection between better treatment and wages for workers, better worker skills and productivity, and hence greater employer advantage. There is some evidence that working conditions throughout these industries progressively improved through the inter-war years, producing in a few large cotton companies in particular a structure of management and non-wage benefits more reminiscent of post-war images of Japanese industrial relations. However, employer self-interest was only part of the reason for this change. Equally important was state intervention aimed at factory legislation and recruitment control. Such measures were bitterly resisted by employers on the grounds that such intervention infringed their freedom to deal with their employees and violated the ‘traditional harmonious relationship between management and worker’, – something which the conditions described above suggest had long been largely illusory.

However, these improvements were only part of the picture. On the other side changes occurred in the labour market, the industrial structure and the international economy, which adversely affected women workers. Extensive rationalisation in the 1920s cut the demand for labour. The Great Depression wrought havoc with the silk industry, which never recovered, and the 1930s witnessed the relative decline of the female-dominated textile industries. In periods of economic difficulty, the failure to view textile workers as long-term, committed members of the workforce (a view which seemed to be supported by the youth and high turnover among workers), and the prevailing conservative view that women’s role was essentially domestic, rendered their position particularly vulnerable.

What of the workers’ own experience of work? Contemporary report and historical interpretation have combined to convey an image of an exploited workforce whom poverty and sex made easy prey to rapacious industrialists, but whose contribution enabled Japan to compete with the West in early industrialisation. For many historians, the cheap labour of textile workers created profits for greedy capitalists while sustaining a semi-feudal village economy. Above all, they have been widely seen as passive victims of exploitation, suffering worse conditions than almost all other industrial workers, unable to fight back for a variety of reasons, including youth, gender, or capitalist and state oppression.

However, although data giving the workers’ perspective is not numerous, we have enough to suggest that workers were far from being the totally passive creatures they have been depicted as, nor were they beguiled by their employers’ ‘paternalistic’ strategies. At the very least they sang protest songs. Some were resigned to their lot, but others protested more vigorously against the extremes of sexual harassment, physical brutality and unhealthy hours and conditions. Workers’ willingness to assert their rights against what they considered unjust treatment, especially in the 1920s, have been seriously under-estimated. Though unionisation rates remained low, and workers’ position as women, as well as state restrictions, discouraged overt forms of protest, there were some incidences of organised strike activity as early as the 1880s. More significantly, relatively few workers completed their full contracts. Despite
restrictions and the loss of earnings which departure entailed, the number who managed to leave the mill for another which appeared to offer greater rewards, or to escape to their homes, was quite staggering. This was hardly passive acceptance.

As a group, though, these workers were relatively unsuccessful in pressing for major reforms in the pattern of textile production, and those who absconded were soon replaced by others. One explanation lies in the conditions within the Japanese agricultural sector, from which most workers came, and which still employed nearly half the gainfully occupied population in 1930. Both male and female members of farming families had a long history of engaging in by-employsments at home and had for several centuries left their villages on a temporary or permanent basis to earn in other sectors. The income which came in from such employments helped to sustain the farm family unit, and in bad times or harvest failure the family had one less mouth to feed. The textile workers stood firmly in this by employment tradition. Other factors also contributed to a girl's decision to take up work in textiles. There existed a strong tradition of women's work in textile production. With subsidised board and lodging (however inadequate in quality) thrown in, income in textiles was often higher than the same girl could have earned working as an agricultural labourer or contributing to the family farm. For some, the stimulus was the often illusory attractions of urban life.

There is no doubt that there was in these women's approach to work a life-cycle factor which differentiated them from men. The mills provided a new outlet for employment which could be left on marriage, and a considerable proportion of female textile workers did conform to the stereotype of a few years' work followed by marriage, childbirth and work in an agricultural community. However, it is erroneous to assume, especially for the period after the First World War, that all these women workers were never more than 'supplementary' labour, who remitted all their earnings home and regularly returned to their home villages to marry. Many workers moved from one mill to another to enhance their situations, and many never returned to their villages at all. During the course of the early decades of the twentieth century there emerged from among this group a more permanent female industrial workforce who through work or marriage settled permanently away from their place of birth, became committed to the pursuit of non-agricultural employment, and constituted a significant part of the large flow of people out of agriculture at this time. Like their male counterparts, they were part of the process whereby the occupational structure was gradually changed to one characteristic of an industrialised country. Features common in early industrialisation, such as seasonal working, temporary industrial employment and short-term migration slowly declined as workers' rural ties were either weakened, or severed completely. Women did not participate in this process just by following their husbands or fathers; many female workers in textiles and other occupations took this step on their own account. Farmers' daughters were gradually transformed into autonomous industrial workers with a collective pride in their status of wage-earners, whose work contributed to the family well-being.

Both at the time and with the hind-sight of the late twentieth century, the process of Japanese industrialisation is open to criticism. Contemporaries highlighted the bad conditions, the squalor, the long hours, the lack of safety and the general 'exploitation'; it is difficult for the historian to do other than confirm this picture. From the modern era we can also see more clearly the gendered dimension of Japanese industrialisation. Here, as elsewhere, the fact that these workers were women made control of the workforce easier, and facilitated the payment of low wages. The strongly patriarchal family system formed the background of these workers' employment, of employers' treatment, and of the whole lifecourse of these girls and women. The patriarchal system rested on a bedrock of natural conservatism (of both the
individual and society as a whole), and was consciously reinforced by the Japanese state. A fervent rhetoric of domesticity permeated all arguments relating to women workers, who were always seen primarily as wives and mothers, or, if unmarried, as future wives and mothers. Indeed, almost all women did get married. Such ideologies of domesticity, and their reflection in the institutions of society as a whole, played a crucial role in creating the highly segmented labour market based on gender which is apparent not only in Japan, but in most other developing and developed economies as well. This dimension of gender was ignored, because it was taken for granted, by contemporary commentators on the situation of female textile workers in pre-war Japan. While workers slowly forged an identity as workers, and came to make autonomous decisions relating to compliance and protest in the context of the workplace, there is little evidence that the majority of workers seriously questioned the constraints which contemporary perceptions of gender imposed upon their lifecourse and their participation in the labour market.

However, it would be anachronistic to view the early twentieth century purely through late twentieth-century eyes, and to ignore the very real constraints and limited range of choices faced by contemporaries. The transition from an agricultural to an industrial society was never going to be easy, especially in the context of a fiercely competitive international economy. Perhaps more striking than the protests at the conditions was the absence of an effective and sustained opposition which could compel employers to alter their policies. This absence reflected a widespread acceptance that industrialisation was the only way forward for the nation and that the social costs associated with it were a price which had to be paid.