

Woodwork : The Sendai City Vocational Apprentice School

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This chapter will examine how apprentice schools, which had been designed as part of the Meiji government's policy of increasing production and promoting industry, came to be established and developed in the various regions. As stated previously by Tejima Seiichi, there were two types of apprentice schools: producing-center apprentice schools established in the production areas to contribute to the modernization of the traditional industries, and urban apprentice schools established in cities with populations of over ten thousand people. The latter were established to serve indirectly in the development of domestic industries. The two types of apprentice schools were classified by the reason for their establishment. The former primarily corresponded to the traditional industries, and the latter to industries of foreign origin.

Tejima, moreover, classified apprentice schools into ordinary and advanced schools. While the former were expected originally to train workers, the latter were additionally expected to play a supplementary role in elementary education. According to Tejima, the urban and the advanced apprentice schools were the upward type of apprentice school and the producing center and ordinary apprentice school were the downward type of apprentice school. While many of the former were being upgraded to full-time technical schools on the basis of the Regulations for Technical Schools established in 1899, the latter were either downgraded to part-time technical continuation schools on the basis of the Regulations for Vocational Continuation Schools established in 1893 or discontinued. The case studies examined in this chapter all pertain to the apprentice schools of the upward type.

I. The Process of School Establishment

The Sendai City Vocational Apprentice School was established in September 1896 and used a provisional classroom in Kami Sugiyama Dōri Ordinary Elementary School in Sendai City. The founding of this school was largely due to the leadership shown by Endō Yōji, the mayor of Sendai City at that time, Yokozawa Tarikichi, a schoolmaster of Akita Normal School, and others.

Endō Yōji, who also acted as chairman of the Miyagi Prefectural Assembly, was at the forefront of political circles and rendered important services to education. As a result of his decisive judgment and efforts, the vocational apprentice school was established in Sendai. Yokozawa Tarikichi was a native of Sendai City who had been educated at the Tokyo College of Technology, a school for the purpose of training apprentice school teachers. In September 1894, while teaching at the Akita Normal School, he presented to Mayor Endō a statement of his educational views entitled *Regarding the Promotion of Commerce and Industry in Sendai City* because of his concern about the stagnant commerce and industry in Sendai. His statement proposed "the initial establishment of an ordinary technical school and an ordinary commercial school as one of the measures to develop Sendai as a commercial and industrial city."

Mayor Endō adopted Yokozawa's ideas and presented a bill to the City Assembly after having persuaded some of the City Assembly members who were against it. In March 1896, the City Assembly approved a bill to establish the school. The reasons for the establishment of the school presented to the City Assembly were as follows:

As a result of the lack of an industrial philosophy on the part of the city's general populace, large mechanized industries have not yet developed in Sendai. The general populace continues to rely upon artisan training based upon the apprentice system, and thus progress remains at the stage of private, small industries. Since there will be a tendency for the apprentice system to decline henceforward, the objective of establishing a vocational apprentice school is to nurture modern workers and to contribute to the development of large mechanized industries in the future.

At that time, Sendai City had completed the founding of ordinary elementary schools, and it was occupied with the establishment of upper elementary schools. It was financially very difficult to establish both a vocational apprentice school and upper elementary schools. For this reason, opposition to the mayor's bill had been expressed at the City Assembly. Among other reasons behind the oppo-

sition, some assembly members held that an apprentice school would be beneficial only to the industrial circles and not to the citizens. Supporters of the bill stated that unlike upper elementary schools, whose buildings had to be constructed entirely with city funds, the establishment of an apprentice school could be nationally subsidized. An apprentice school could also act as a substitute for an upper elementary school as it was designated as the same type of school. In addition, industrial development of the city would benefit not only industrial circles alone but also the development of the entire city. After long deliberation, the City Assembly approved the bill for the establishment of an apprentice school. Yokozawa Tarikichi was invited to become the first principal of the school.

II. Curriculum

The school's first curriculum offered was a woodwork course, which was divided into carpentry and joinery. There were eight subsidiary subjects consisting of drawing, ethics, reading, composition, calligraphy, arithmetic, science, and physical education. Reading, composition, and calligraphy were elective subjects. Among the subsidiary subjects, particular emphasis was placed on drawing related to woodwork. As for the hours spent on practical training, in the first semester of the first year, out of a total of 48 hours a week, 16 hours or 33 % of the time was allocated. In the second semester training time was increased to 20 hours or 40 % out of a total of 50 hours a week. In the first semester of the second year, out of a total of 52 hours a week, 27 hours or 52 % of the time was allocated and was increased to 29 hours or 54 % of the 54 hours a week in the second semester. The number of hours was rapidly increased to 45 hours or 80 % of the 56 hours a week in the first semester of the third year, which was increased to 50 hours or 83 % of the 60 hours a week in the second semester. Training time was allocated so that most of the subsidiary subjects were completed by the end of the second year. This curriculum emphasized practical training in line with the school's intention to nurture carpenters and joiners who would have immediate value at a job site.

Those with more than an ordinary elementary school graduation were qualified to enter the school. The period of study was for three years of regular work and one year of training at a job site. Students thus graduated from the school after four years. Enrollment was limited to 80 students for the carpentry course and 40 students for the joinery course. A certificate of completion of school work was granted to those who finished the three-year curriculum, and the status of "worker"

was also granted to those who completed one year of job-site training. The characteristic of an education subsidiary to elementary education was not seen in this school. Regarding the curriculum, the period of study, and the admission qualifications, this school would fit Tejima Seiichi's definition of an advanced urban apprentice school.

III. The Extension of the Metalwork Course

Since the modern industries extant in Miyagi Prefecture at that time were primarily light industries such as silk reeling and spinning, a sericultural school with a curriculum related to silk yarn would have merited consideration. Nevertheless, the Sendai City Vocational Apprentice School concentrated on the woodwork course alone. The school was much removed from modern mechanized industries, and it was designed as a worker training institution for carpenters and joiners who were engaged in the manual industries of housing and furniture. It was extremely difficult to gather applicants for the school because of the inevitable opposition from the woodwork industry and elementary teachers. There was a general sentiment at that time that such workers did not need education and that artisan training had been solely dependent on the apprentice system. The industry derided worker training in the form of school education, and elementary school teachers were vehemently opposed to the vocational apprentice school on the grounds that expenditure on the school would interfere with regular education.

Despite such unfavorable conditions, in March 1899, owing to the efforts of school-related people centering on Mayor Endō and Principal Yokozawa and the national subsidy, an independent school building was completed and an opening ceremony was held. In April of the same year, a metalwork course was offered in addition to the woodwork course; concurrent with the completion of a new metal factory, the school was renamed the Sendai City Worker Training School. At the time of the promulgation of the Vocational School Act in April 1899, the school was again renamed the Sendai City Technical School and it later became the City-Run Sendai Technical School in April 1901. The Sendai Vocational Apprentice School thus gradually removed itself from the traditional industries. As a low-level technical school, it became responsible for the supply of workers to the modern industries. In April 1899, the Sendai City Technical School revised its school rules extensively. As a result, admission was offered to applicants who were older than 12 years of age and had completed more than two years of upper elementary school. The period of study

was four years, and enrollment was limited to 100 students for the woodwork course and 100 for the metalwork course. The metalwork course was divided into four sections: sheet-metal processing, founding, metal working, and finishing. The woodwork course was divided into carpentry and joinery as it had been before. The curriculum even for the woodwork course consisted of such modern subjects as architectural drawing, manufacturing methods, freehand drawing, sketch drawing, practical geometry, chemistry, and physics. The addition of the metalwork course presumably gave impetus to the transformation of the school from worker training to modern technician training.

IV. Tho School Management

The school personnel at the time of the founding totalled only four. Principal Yokozawa himself took charge of six subjects and a school-master who had graduated from the Technical Teacher Training Center annexed to the Tokyo College of Technology took charge of five subjects. The two others were a secretary and an assistant. At the time of its founding, the school was thus managed in reality by two teachers who had received instruction from Tejima Seiichi, principal of the Tokyo College of Technology.

In April 1899 when the metalwork course was added and when the school was renamed the Sendai City Technical School, the number of school personnel soared to 13. The school not only employed those who had graduated from the Technical Teacher Training Center attached to the Tokyo College of Technology as teachers but also appointed local artisans or alumni of the school as assistant teachers, teacher aides, and assistant teacher aides. Four years after its founding, the school thus began to exhibit a tendency toward transformation from a low-level technical school to a secondary level technical school.

In 1896 the number of students enrolled in the school's first class was 33, and the students' ages and backgrounds were diverse. The period of study for elementary school at that time was eight years with four years for ordinary elementary school and four years for upper elementary school. Concerning the academic background of the students in the first class, four had graduated from ordinary elementary school, 16 were attending upper elementary school, and 13 had graduated from upper elementary school. There was about a four-year gap in the ages of the students. As a result of the gap in the students' academic background and ages, management of the school was very difficult. Nevertheless, it was possible to maintain class order with the appointment of two senior students as class president and class vice-

Table 4.1. Sendai School Students by Class Origin, 1898 (%)

| | First Year | Second Year | Third Year | Total |
|----------|---------------|----------------|---------------|---------|
| Samurai | 5 (29) | 13 (38) | 7 (39) | 25 (36) |
| Commoner | 12 (71) | 21 (62) | 11 (61) | 44 (64) |
| Total | 17(100) | 34(100) | 18(100) | 69(100) |

Source: *Sendai kōgyō kōkō 70 nen shi* [A 70-Year History of Sendai Technical High School], 1971, p. 27.

president. The relations between teachers and students was maintained using the traditional master-apprentice relationship.

With regard to the occupations of the parents, 67% of the total, namely 22 parents, were artisans involved in carpentry, joinery, and other skills, followed by civil servants; three were engaged in agriculture and commerce, and there was one odd jobber. The number of parents who were not artisans was few. The education offered by the school in its initial phase needed to reorganize artisan training from that based upon the traditional apprentice system to that based upon the modern school system. In an 1898 survey on the school's educational matters, the social class of the students was as shown in Table 4.1. The majority (60 to 70%) of the students in every grade at this school consisted of those who came from the commoner class and the remainder (30 to 40%) were children of low-ranked samurai in the period of the fief governments.

Table 4.2. Sendai School Applicants and Those Admitted by Year and Residence

| Classification | Residence | 1897 | 1898 | 1899 | |
|----------------|-----------------------------------|------|------|------|-------|
| Applicants | Sendai City | 16 | 17 | 12 | |
| | Rural Districts in the Prefecture | 1 | 0 | 7 | |
| Those Admitted | Sendai City | 16 | 17 | 12 | |
| | Rural Districts in the Prefecture | 1 | 0 | 7 | |
| Classification | Residence | 1900 | 1901 | 1902 | Total |
| Applicants | Sendai City | 31 | 16 | 31 | 123 |
| | Rural Districts in the Prefecture | 5 | 14 | 10 | 37 |
| Those Admitted | Sendai City | 26 | 14 | 26 | 111 |
| | Rural Districts in the Prefecture | 5 | 13 | 8 | 34 |

Source: Same as Table 4.1, p. 38

Table 4.3. The Direction of Sendai School Alumni (as of 1 December 1902)

| Direction of Alumni | Woodwork | Metalwork | Total (%) |
|---|----------|-----------|-----------|
| Those engaged in this industry in the prefecture | 22 | 1 | 23 (60) |
| Those engaged in this industry out of the prefecture | 4 | 3 | 7 (18) |
| Those who entered the Army Artillery and Engineering School | 1 | 0 | 1 (3) |
| Those who entered the intensive course of the Technical Teacher Training Center | 0 | 1 | 1 (3) |
| Those who entered the Iwate Prefectural Technical School | 4 | 0 | 4 (10) |
| Unknown, living in Tokyo | 1 | 0 | 1 (3) |
| Those who became ill | 1 | 0 | 1 (3) |
| Total | 33 | 5 | 38(100) |

Source: Same as Table 4.1.

Table 4.2 shows the number of applicants and those admitted according to year and native area. The number of applicants and those admitted in the six-year period from 1897 to 1902 shows that most had gained admission to the school with an admission rate of 91%.

The direction of the alumni of this school is shown in Table 4.3. Those who were working as woodworkers and metalworkers in the prefecture made up 60% of the total, and 18% were working out of

Table 4.4. Sendai School Enrollment Transition

| Year | | | | | | | |
|-----------|-------------|-------------|-------------|------------|------------|------------|------------|
| Course | 1897 | 1898 | 1899 | 1900 | 1901 | 1092 | 1903 |
| Woodwork | 33 (110) | 69 (115) | 80 (107) | 68 (68) | 52 (52) | 47 (47) | 49 (49) |
| Metalwork | — | — | 23 (92) | 42 (84) | 49 (65) | 48 (48) | 52 (52) |
| Year | | | | | | | |
| Course | 1904 | 1905 | 1906 | 1907 | 1913 | 1915 | 1919 |
| Woodwork | 33 (33) | 56 (56) | 57 (57) | 72 (72) | 80 (80) | 79 (79) | 72 (72) |
| Metalwork | 93 (93) | 71 (71) | 65 (65) | 89 (89) | 73 (73) | 82 (82) | 97 (97) |

Note: The figures in parentheses denote the percentage of students in relation to the total seats available.

Source: Formulated from the compendium for respective years in *Sendai kōgyō kōkō 70 nen shi*.

the prefecture. When both figures are combined, it meant that the majority of the alumni became workers. Those who went on for further education were no more than five from both the carpentry and joinery courses. The alumni contributed to the modernization of these industries as leaders, not only working in designing offices, architectural offices, construction offices and woodwork mills but also moving up as managers of these offices.

Table 4.4 shows that in the enrollment transition, excluding the first three years from the time of the founding of the school, neither the woodwork nor the metalwork course was filled to capacity. However, enrollment increased at the end of the Meiji period, from 1907. This increase correlated to the rapid development of modern industries from the end of the Meiji period to the Taishō period. In addition to the extension of the metalwork course, the school endeavored to innovate its educational content, as it subdivided and renamed the woodwork course the architecture course and furniture course in 1911.

The fact that the student capacity had not been filled did not mean that the number of students who had gained admission was less than the capacity. Some students had dropped out after entering the school and had taken up apprentice service in the midst of their study so that they could help their family finances. As a measure against such a state of affairs, the school additionally established a technical continuation night school to provide education to those who had dropped out. The night school was held three times a week from seven o'clock for two to three hours, and the emphasis was primarily placed on apprentice carpenters so that they could acquire architectural skills. This night school was later developed into the City-Run Sendai Technical Continuation School which in 1915 was joined to the Sendai City Technical School.

Lastly, let us examine the school budget. The following is a section pertaining to the annual income of the school budget in 1900:

| | |
|----------------------|-------------------|
| Tuition | ¥264 (5.9%) |
| Miscellaneous Income | |
| (Sale of works) | ¥400 (8.9%) |
| National Subsidy | ¥1,400 (31.1%) |
| Prefectural Subsidy | ¥1,000 (22.2%) |
| City Expenditure | ¥1,440.41 (31.9%) |
| Total | ¥4,504.41 (100%) |

The national and prefectural subsidies came to 54% of the total annual income, while the city expenditure was no more than one-third of the total. Moreover, the income from tuition comprised only 5.9%.

As for the expenditures of the school, 60% of the total were expenses related to salaries, and 40% pertained to expenses for both educational materials and repairs.

V. Becoming a Technical School

Soon after its founding, this school was on the path to becoming a secondary level technical school from a low-level technical school. To be transformed from an ordinary-level technical school based upon the Regulations for Apprentice Schools to an advanced level technical school based upon the Regulations for Technical Schools, the school submitted a statement of request to the Governor of Miyagi Prefecture in April 1900. The school applied to become a Prefectural-Run Sendai City Technical School with the additional establishment of a dyeing and weaving course apart from the metalwork course. This request, however, was not accepted.

In February 1918 a bill to abolish the City-Run Sendai Technical School and to establish a technical school based upon the Regulations for Technical Schools was presented to the Sendai City Assembly and approved. As a result, in April 1920, the joint establishment of a three-year technical school curriculum in accordance with the Regulations for Technical Schools and a two-year apprentice school curriculum in accordance with the Regulations for Apprentice Schools were actualized. These two curricula corresponded respectively to the needs of large enterprises that had developed rapidly after World War I and to those of small and medium enterprises derived from a line of traditional industries still in existence. In April 1922, because of the abolishment of the apprentice school curriculum, the school only offered five-year technical schooling to those who met the admission qualification of graduation from six years of ordinary elementary school. Starting from 1923 the school added a civil engineering course; three courses were now offered at the school: woodwork, metalwork and civil engineering. In 1925 when the woodwork course was divided into the architecture course and the furniture course, the metalwork course was renamed the machine course. Consequently, the school came to fulfill the role of training technicians for modern industries.

VI. Sendai Technical Continuation School

In May 1915 the City-Run Sendai Technical School based upon the Regulations for Apprentice Schools was granted approval to establish

jointly the City-Run Sendai Technical Continuation School as a night school. Although the Sendai City Vocational Apprentice School was ultimately upgraded to a secondary level technical school, the school in the interim of upward mobility eliminated the children of the poor as they dropped out. Moreover, there was still the class of traditional artisans. Thus the establishment of a part-time technical continuation school not only provided reeducation for the artisans but also opened this school to the children of the poor.

The Sendai City Vocational Apprentice School founded in 1896 in accordance with the Regulations for Apprentice Schools initially started with the woodwork course alone to provide traditional artisan training for carpenters and joiners in the modern school system. The educational content was modernized through such changes as the additional establishment of the metalwork course soon after, followed by the addition of the civil engineering course. Independent courses in architecture and furniture were created out of the woodwork course, and the metalwork course was renamed the machine course. In 1920 the school was upgraded to a technical school in accordance with the Regulations for Technical Schools. As a result, a qualitative transformation of the school was achieved so that it could train technicians for the modern industries.

The Government Subsidy for Vocational Education Act promulgated in June 1894 and the Regulations for Technical Teacher Training established at the same time played a particularly important role in upgrading apprentice schools. While the former contributed to the provision of school facilities, including the school building, the latter trained excellent teachers and was decisive for the modernization of educational content and methods.
