

Pioneers of Japanese Design Education from
Bijutsu to Kogyo Zuan in the Meiji Era

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Abstract

JAPANESE industrial design education started with the Japanese word *Bijutsu*. The newly coined term first appeared in the Japanese program of the Vienna Universal Exhibition of 1873 as a translation of the German words *Kunstgewerbe* (applied art) and *Bildende Kunst* (fine art), which were used in the original German program. Through participation in the Vienna Exhibition, Japan learned European systems of museums and schools, which had been employed in Das k. k. Österreichische Museum für Kunst und Industrie (Imperial and Royal Austrian Museum for Art and Industry) and Die Kunstgewerbeschule (School of Applied Art) in Vienna, to educate young people in the applied arts. Models for these institutions were the South Kensington Museum (now the Victoria and Albert Museum) and the School of Design in London. It was the Kunstgewerbeschule in Vienna where Eizo Hirayama, the first Japanese design student in Vienna, studied applied art from 1874 to 1877. After returning to Japan, Hirayama, as an official of the Imperial Court Museum, introduced European ideas of applying art to industry, especially Gottfried Semper's ideas of industrial art, Jacob von Falke's aesthetics of applied art, and Felix Kanitz's theory of ornaments, to Japan in the 1880s. Working for the Patent Bureau, Hirayama taught *Kogyo Zuan* (industrial design) at the Kogyo Kyoin Yosei-jo (Training Institution of Industrial Teachers) and the Tokyo Koto Kogyo Gakko (Higher Technological School of Tokyo) from 1897 to 1907. It was the Koku Bijutsu Gakko that was the first national art school founded by the Japanese government in 1876. Its fundamental principles were to encourage and promote Japanese industry by implanting modern Western art techniques, especially painting, sculpture, and architecture, into old Japanese manufacturing systems and to catch up with European art schools by mastering the principles of Western-style art. Therefore, it was to be a school for not only fine art but also applied art. Hisashi Matsuoka studied painting under the direction of Antonio Fontanesi, an Italian artist, at the Koku Bijutsu Gakko from 1876 to 1878. Matsuoka also studied drawing and painting at the Regio Istituto de Belle Arti in Rome (Royal Institute of Fine Art) from 1881 to 1887. After returning to Japan, Matsuoka worked for the Patent Bureau during the 1890s, and he taught *Kogyo Zuan* at the Tokyo Koto Kogyo Gakko from 1906 to 1914. Hirayama and Matsuoka were pioneers of Japanese design education in the Meiji era.

Keywords: Japanese Design Education, Bijutsu, Kogyo Zuan

Introduction

TODAY, there are many Japanese design historians, but there is not yet a consensus concerning the beginnings of Japanese design education. On one hand, in his article entitled *Design Education*¹⁾ published in 1994, focusing on the Japanese word *Dezain*, which is an adoption of the English word “design” in syllabic transliteration, Shutaro Mukai emphasizes that it was not until the early postwar period, during the 1950s, that specialized design education at the high-school and university levels had their real beginnings in Japan, and points out that Shinji Koike and Iwataro Koike made significant contributions to their development. According to Mukai, while Japan’s art education was reformed under the influence of the Bauhaus movement before World War II, design education was not immediately established as a specialized discipline. On the other hand, in his book entitled *Japanese Design in Progress*²⁾ published around 1960, focusing on Kaijiro Notomi’s activities, Kimimasa Abe points out that Japanese design education began in the 1890s. According to Abe, Kaijiro Notomi was one of those who visited Europe in the 1870s to study design, especially from the viewpoint of combining art and industry. Notomi, Abe says, went to the Vienna Universal Exhibition in 1873 as a member of the Japanese exhibition committee and founded Edogawa Seito Sho (Edogawa Pottery Works) in 1877, and he acutely realized the necessity of education in design and persuaded the prefectural government of Ishikawa-ken and Toyama-ken to establish technological schools in the 1890s. Such activities moved the Japanese government authorities establish a design course in the Tokyo Bijutsu Gakko and the Tokyo Kogyo Gakko (changed to Tokyo Koto Kogyo Gakko in 1901) in the second half of the 1890s.³⁾

In my previous studies on the history of Japanese design in the Meiji era, I discuss the beginnings of Japanese design education and Japanese industrial design concepts in the Meiji era. By focusing on the meanings of the Japanese words *Bijutsu*, *Ischo*, and *Kogyo Zuan*, I investigate the history of Japanese institutions, especially a school called the Koku Bijutsu Gakko,⁴⁾ design regulations called *Ischo Jorei*,⁵⁾ and the concepts of Japanese industrial design called *Kogyo Zuan*.⁶⁾ These institutional histories are, as John W. Walker says,⁷⁾ boring and tedious, but he also says that records generated by institutions can provide historians with valuable sources

- 1) ——— Shutaro Mukai, ‘Design Education’, in *Japanese Design; A Survey Since 1950*, Philadelphia Museum of Art, 1994, pp.26-29.
- 2) ——— Kimimasa Abe, *Japanese Design in Progress*, Japan Export Trade Promotion Agency, nd.
- 3) ——— Ibid., p.12. See also Haruhiko Fujita, ‘Notomi Kaijiro: An Industrial Art Pioneer and the First Design Education of Modern Japan’, *Design Issues*, Vol.17, No.2, Spring 2001, pp.17-31.
- 4) ——— Yoshinori Amagai, ‘The Koku Bijutsu Gakko and the Beginning of Design Education in Modern Japan’, *Design Issues*, Vol.19, No.2, Spring 2003, pp.35-44.
- 5) ——— Yoshinori Amagai, ‘The First Japanese Design Regulations (Ischo Jorei) and the idea of Applying Art to Industry in Japan in the 1880s’, in *Proceedings of the 6th International Conference of Design History and Design Studies*, 2005, pp.52-55.
- 6) ——— Yoshinori Amagai, ‘Japanese industrial design concepts in the transition from the nineteenth to the twentieth century: with special reference to the Japanese industrial design educators Hirayama Eizo (1855-1914) and Matsuoka Hisashi (1862-1944)’, in *Design Frontiers, Territories/Concepts/Technologies: ICDHS 2012 8th Conference of the International Committee for Design History & Design Studies*, 2012, pp.19-22.
- 7) ——— John W. Walker, *Design History and the History of Design*, Chicago: Pluto Press, 1989, pp.65-66.

of information about changing attitudes toward design. By investigating these institutional records and documents, I show that the idea of applying art to industry played an important role in the development of Japanese design in the Meiji era. Based upon the idea, which was introduced from Europe to Japan through participation in the Vienna Universal Exhibition in 1873, the Koku Bijutsu Gakko was founded in 1876, the Isho Jorei was enacted in 1888, and education in *Kogyo Zuan*, to which Eizo Hirayama and Hisashi Matsuoka contributed, began in 1897. However, there are particular problems, as John Heskett says,⁸⁾ not only in translating the Japanese language into another language but also in interpreting old Japanese words changing their meaning on the subject.

In this paper, showing the original documents in question, I illustrate that the Japanese word *Bijutsu* provided the basics for the development of Japanese design education in the 1870s, and point out that Eizo Hirayama's and Hisashi Matsuoka's education in industrial design called *Kogyo Zuan* were forerunners of Japanese design education for the unification of art and technology.

Bijutsu as Kunstgewerbe and/or Bildende Kunst

THE Japanese word *Bijutsu* first appeared in the Japanese program⁹⁾ of the Universal Exhibition 1873 in Vienna (*Weltausstellung 1873 in Wien*)¹⁰⁾ published in 1872. The newly coined term stood for the German words, *Kunstgewerbe*, *Kunst*, and *Bildende Kunst*, which were used in the classification adopted for the objects exhibited. According to the classification listed in the program, exhibits were separated into twenty-six groups. The word *Bijutsu* was used in the titles of Group 22, Group 24, and Group 25. The original German titles are as follows.

22.GRUPPE.

Darstellung der Wirksamkeit der Kunstgewerbe-Museen.

Diese Gruppe soll die Mittel darstellen, mit deren Hilfe die kunstgewerblichen Museen der Neuzeit auf Veredlung des Geschmackes und auf allgemeine Kunstbildung einzuwirken bemüht sind.

24.GRUPPE.

Objecte der Kunst und Kunstgewerbe früherer Zeiten, ausgestellt von Kunstliebhabern und Sammlern (Exposition des amateurs).

Mit dieser Ausstellung wird der Versuch gemacht werden, die Schätze der Privatkunstsammlungen, welche in der Regel nur kleinen Kreisen zugänglich sind, den Kunstfreunden zu erschliessen und dem Kunstgewerbe neue Ideen zuzuführen.

25.GRUPPE.

Die bildende Kunst der Gegenwart.

8) ————— John Heskett, *Design in Germany 1870-1918*, London: Trefoil Books Ltd., 1986, p.8.

9) ————— The documents and official reports on the Vienna Universal Exhibition including the Japanese Program are kept in the National Archives of Japan.

10) ————— The diplomatic documents on the exhibition including the German, English, and French Programs are kept in the Diplomatic Record Office of the Ministry of Foreign Affairs.

Diese Abteilung soll nur solche Kunstwerke aufnehmen, welche seit der zweiten Londoner Ausstellung 1862 geschaffen wurden.

The original English titles are as follows.

Group 22.

Representation of Influence of Museum of fine Arts applied to Industry.

The object of this department is to show the means by aid of which the modern museums of fine Arts applied to industry (viz: the South Kensington Museum in London and the similar Museums in Vienna, Berlin, Moscow etc.) endeavour to improve the public taste and diffuse artistic education.

Group 24.

Objects of fine Arts of the past, exhibited by Amateurs and Owners of Collections. (Exposition des amateurs).

This group has as its aim to enable the visitor to see an Exhibition of treasures of private collections of works of fine arts, which are usually accessible only to a limited few, thus giving students and others engaged in artistic pursuits an opportunity to gain new ideas.

Group 25.

Fine Arts of the present Time.

This group will contain works of fine arts produced since the International Exhibition of London in 1862.

Comparing the German titles with the English titles,¹¹⁾ it is certain that *Kunstgewerbe* stood for fine art applied to industry and that *Bildende Kunst* stood for fine art. However, the difference between *Kunstgewerbe* (fine art applied to industry) and *Bildende Kunst* (fine art) was unclear in the Japanese titles. At the time, around the 1870s, in Japan, there was no such concept as fine art, and no such institutions as museums of fine art applied to industry in the Western sense. It was to be learned through participation in the Vienna Universal Exhibition. The Japanese exhibition committee dispatched many young officials to factories and schools in European countries to obtain the latest knowledge in all fields, and to import new tools and machines.

11) ————— The original French titles are as follows.

22e groupe.

Exposition des Musées des Beaux-Arts appliqués à l'industrie.

Ce groupe a pour but d'exposer les moyens à l'aide desquels les Musées modernes des Beaux-Arts appliqués à l'industrie tendent à améliorer le goût public à répandre et à généraliser l'instruction artistique.

24e groupe.

Objets d'art des époques antérieures, exposés par des amateurs et des collectionneurs (Exposition des amateurs).

Cette Exposition a pour but de faire connaître les trésors des collections particulières d'objets d'art qui généralement ne sont accessibles qu'à des cercles très-restreints, et d'inspirer de nouvelles idées aux artistes industriels.

25e groupe.

Beaux-Arts.

Ce groupe ne comprendra que des oeuvres d'art qui ont été produites depuis la seconde Exposition de Londres 1862.

Eizo Hirayama, a young member of the committee of which Kaijiro Notomi was also a member, studied from 1874 to 1877 at Kunstgewerbeschule (School of Applied Art) in Vienna, instead of Akademie der bildende Künste (Academy of Fine Arts). Tsunetami Sano, head of the committee, and Gottfried Wagener, foreign adviser of the committee, had a great interest in applied art, rather than fine art. Kunstgewerbeschule was founded in 1867 and attached to k.k.österreichische Museum für Kunst und Industrie which was founded in 1864. The museum and the school were representative institutions for *Kunstgewerbe* in Europe. The fundamental purpose of Kunstgewerbeschule was to educate workers to be able to meet the demands of art industry. Its basic instruction was in architecture, sculpture, painting, and drawing¹²⁾ because industrial art was based upon nothing less than the application of these arts to the needs of daily life. It was a belief of Rudolf von Eitelberger, a pioneer in art history in Vienna and the first director of the museum, for whom fine art and industrial art were inseparably connected.¹³⁾ In this meaning, applied art was an integration of art and industry. At Josef Stork's architecture course in Kunstgewerbeschule, Hirayama studied the theory of style, projection, shading, and perspective for total arrangements of inner space in houses including furniture and house equipment in wood, metal, glass, stone and porcelain.

The Koku Bijutsu Gakko as the School of Design and/or the Art School

After the closing of the Vienna Exhibition, many official reports were published by the Japanese exhibition committee, in which Sano and Wagener strongly proposed that museums (*Hakubutu-kan*) and drawing schools (*Ga-Gakko*) be established in the major industrial towns of Japan to encourage art and industry, namely pottery, porcelain, metal work, lacquer work, and weaving. Models for their concepts were the South Kensington Museum and the School of Design in London and k.k.österreichische Museum für Kunst und Industrie with Kunstgewerbeschule in Vienna, which were listed in Group 22 of the classification of the Vienna Universal Exhibition. The following description is seen in the official catalog of the Philadelphia International Exhibition published by the Japanese commission in 1876.¹⁴⁾

Towards the end of 1873, a Museum was organized in Tokio, comprising six departments, viz.: The industrial department, the department of art and art applied to industry, a collection of scientific and educational apparatus, a museum of natural history, an agricultural department, and finally a historical and ethnological museum. These collections were greatly augmented at the time of Vienna exhibition by donations and purchases.... It was further intended to organize a school of design, to be controlled by this Museum.

12) ——— 'Lehrplan und Studienordnung' [Curriculum] in *Das Kaiserlich-Königliche Österreichische Museum und Die Kunstgewerbeschule: Festschrift bei Gelegenheit der Weltausstellung in Wien*, Wien: Wilhelm Braumüller, 1873, pp.85-94.

13) ——— Rudolf von Eitelberger, *Gesammelte Kunsthistorische Schriften* [The Collected Writings on Art History], Band II, Wien: Wilhelm Braumüller, 1872, p.121.

14) ——— The Japanese Commission, *International Exhibition 1876: Official Catalogue Of The Japanese Section, And Descriptive Notes On The Industry And Agriculture Of Japan*, Philadelphia: The Japanese Commission, 1876, p.93.

However, an art school, which was established by the Japanese government in 1876 for education in Western-style painting, sculpture, and architecture, was attached not to the museum but to the Imperial College of Engineering called the Kōbu Daigakko which was founded in 1871. The new school was called the Kōbu Bijutsu Gakko, and its fundamental principles were to encourage and promote Japanese industry by implanting modern Western art (*Gijutsu*) into Japanese manufacturing systems and to catch up with European art schools by not only mastering the fundamental principles of Western-style art but also making up for artistic defects through education in elementary art theory and practice. According to its principles, the Kōbu Bijutsu Gakko should instruct mainly in Western-style art and art applied to industry.

The school put its works on view for the general public at the National Exhibition in Tokyo in 1877. In the official English catalogue of the exhibition, the following description of the art school's exhibits including various branches of art and design is seen.¹⁵⁾

ART SCHOOL OF THE SESAKU-KYOKU (BUILDING AND MANUFACTURING DEPARTMENT)

Busts of Conte Fe, Italian minister, and European women, made of plaster of paris. (98-99, & 106).

Prints, pyramids, cubes, etc., made of plaster of paris. (100-105)

Drawings with pencil and pen. (107-108).

Industrial and architectural designs, studies and fragments. (109-132).

Sample pieces of the decoration of interiors of buildings, made of clay and plaster. (132-142)

The Kōbu Bijutsu Gakko had really started, but in 1878, Antonio Fontanesi, who taught Western-style painting and perspective, was compelled to return to his hometown, Turin in Italy, on account of his health. Immediately after Fontanesi's return, more than ten students including Hisashi Matsuoka dropped out of the school because of their dislike of Fontanesi's successor. Matsuoka and his colleagues Chu Asai and Shotaro Koyama established their own private school of Western-style painting. In the same year, Ernest Fenollosa, a Harvard graduate, came to Japan, and soon became a representative enthusiast of native Japanese-style art. He deplored what he considered the excesses of Westernization, and thought it wrong to teach Western-style art instead of Japanese-style art in the government school. Fenollosa's activities were welcomed by Japanese conservatives. During the 1880s, Westernization produced a nationalistic reaction in Japan. Consequently, the Japanese government decided to close the Kōbu Bijutsu Gakko in 1882, and established the Tokyo Bijutsu Gakko in 1887 to educate students in Japanese-style painting, woodcarving, metal work, and lacquer work, excluding Western-style drawing, painting, and sculpture.

After having dropped out of the Kōbu Bijutsu Gakko, Matsuoka went to Rome in 1880 and studied drawing and painting at the Regio Istituto delle Belle Arti in Rome from 1881 to

15) ——— The Exhibition Bureau, *Official Catalogue Of The National Exhibition Of Japan*, Tokio[Tokyo]: The Exhibition Bureau, 1877, p.2.

1887. He returned to Japan in 1888 when the first Japanese design regulations, the Isho Jorei, were enacted. In the same year, Hirayama was appointed to a post at the Patent Bureau. After returning to Japan, Matsuoka taught Western-style painting and drawing at a private school called the Meiji Bijutsu Kai, the Japanese Imperial Army, Tokyo Imperial University, and Tokyo Higher Normal School. And in 1899, he was appointed to a post at the Patent Bureau as successor to Hirayama.¹⁶⁾

Kogyo Zuan as industrial design

By the 1890s, new Japanese industry had developed, and private capital began to replace government initiatives in the Japanese economy. Many joint-stock companies were established and produced new consumer goods including Western clothing, buttons, eyeglasses, matches, tin boxes, toys, clocks, enameled ironware, and bicycles.¹⁷⁾ Against this backdrop, higher design education started: in 1896 at the Tokyo Bijutsu Gakko for Japanese traditional art industry; in 1897 at the Kogyo Kyoin Yosei-jo; in 1899 at the Tokyo Kogyo Gakko for industrial products in general; and in 1902 at the Kyoto Koto Kogei Gakko for architecture and furniture.¹⁸⁾

The new word *Kogyo Zuan* to express industrial design appeared in the name of a new department of industrial design, which was called the Kogyo Zuan-ka, at the Kogyo Kyoin Yosei-jo and Tokyo Kogyo Gakko. Hirayama started to educate students in *Kogyo Zuan* at the department in 1897 and was appointed head of department at the Tokyo Kogyo Gakko in 1899. Taking over as head of the department from Hirayama, Matsuoka started to teach *Kogyo Zuan* in 1906. As the leading industrial design educators, Hirayama and Matsuoka discussed both educationally and generally ideal Japanese industrial design in their articles published before the First World War.

By the 1900s, Hirayama had broken away from historicist theory of applied art, which Hirayama studied in Vienna in the 1870s, and had the idea of elevating the aesthetic value of industrial products not by applying historical-style paintings and sculpture but by designing new ornamentation. In his article on the elements of design published in 1902,¹⁹⁾ Hirayama asserted that industrial designer should design ornamentation, which was developed by addition of elements derived not from historical art works but from every part of the natural world. In another article,²⁰⁾ he pointed out that the industrial products for daily life should serve the varied necessities of mankind and the desire of beauty, in other words, beauty and utility should unite to form the perfect industrial products.

16) ——— Rokuzo Yasuda (eds.), *Matsuoka Hisashi Sensei* [Biography of Professor Hisashi Matsuoka], Tokyo: Ohmsha, 1941, pp.218-234.

17) ——— Junichiro Suzuki, 'A Résumé of the history of Japanese Industries', in *Fifty Years of New Japan*. Vol.I, London: Smith, Elder & Co., 1909, pp.533-549.

18) ——— Rokuzo Yasuda, *Honpo Kogei no Genzai oyobi Shorai* [Japanese Industrial Arts: The Present and future]. Tokyo: Kobundo-shoten, 1917, pp.135-136.

19) ——— Eizo Hirayama, 'Zuan Zairyo Sentaku no Hoho' [The Methods of Laying Out Design Elements], *Zuan*, No.9, 1902, pp.16-20.

20) ——— Eizo Hirayama, 'Hatsumei to Isho to no Kankei' [Invention and Design], *Kogyo Shoyuken Zasshi*, No.3, 1906, pp.1-8.

From the 1900s to the 1910s, Matsuoka published a series of articles not only on the history of Western architecture but also on the improvement of Japanese goods, and especially advocated the idea of beautifying all industrial products. In his article published in 1906,²¹⁾ pointing out that Art Nouveau and Secession were in vogue among Japanese designers, Matsuoka advised them against imitating European art and design. In his view, some Japanese designers enthusiastically copied the old Japanese art, some the new European art, while others mixed Japanese art and Western art. Matsuoka criticized them for being the cult of “art for art’s sake”, and emphasized that the industrial designer should give priority to utility, saying that:

the industrial designer should accomplish his duty to serve the purpose of beautifying all industrial products by designing daily necessities, common machines, and even ditch covers, and to elevate public taste by harmonizing daily life with beauty.²²⁾

As head of the department of industrial design, Matsuoka requested the Japanese government to make efforts to raise the status of industrial designers and to promote Japanese industrial design activities during wartime. The Japanese government, however, decided to close the department, and to affiliate its students with the Tokyo Bijutsu Gakko against Matsuoka’s wishes in 1914, when Hirayama died. It was in the 1920s that Matsuoka restarted education in industrial design at a specialized institution.

Conclusion: *Kogei* as the unification of art and technology

MATSUOKA conducted a campaign to establish a new institution for industrial design education in Tokyo with his colleague, Rokuzo Yasuda. Publishing many articles to establish a new school for industrial design and to promote the development of design called *Zuan*, Matsuoka stressed the idea of beautifying all industrial products for daily use.²³⁾ And Yasuda published articles serially in a newspaper from 1916 to 1917, in which he insisted that the government should develop young designers to elevate the quality of Japanese industrial products in general, which he called *Kogei-hin*, through the application of art and industrial technology.²⁴⁾

In 1921, Matsuoka and Yasuda succeeded in their attempts to establish a new industrial design school, which was named the Tokyo Koto Kogei Gakko. In the new school, the word *Kogyo Zuan* was replaced by the word *Kogei Zuan* to express the broadened concept of industrial design.²⁵⁾ In his address to the first students, Matsuoka, as the first principal of the new school, defined *Kogei* as techniques to produce beautiful and useful goods through the application of the mechanical, electric, and chemical industries, and he emphasized that the aim of *Kogei*

21) — Hisashi Matsuoka, ‘Isho Toroku no Himitsu ni tsuite’ [On Secret Design System in the Design Act], *Kogyo Shoyuken Zasshi*, No.6, 1906, pp.6-10.

22) — Hisashi Matsuoka, ‘Kogyoteki Zuan no Hatten ni tsuite’ [On the Development of Industrial Design], *Kenchiku Kogei Soshi*, Vol.2, No.4, 1914, pp.4-6.

23) — Hisashi Matsuoka, ‘Honpo Zuankai no Kako to Sekaiteki Shinten no Koki’ [Good Opportunity of the Global Progress in the History of Japanese Design], *Gendai no Zuan Kogei*, No.42, 1917, pp.1-6.

24) — Rokuzo Yasuda, op. cit., 1917, pp.7-17.

25) — *Tokyo Koto Kogei Gakko Ichiran* [Circular of Information: The Higher Technological School of Tokyo], 1921.

Zuan was to harmonize art with industrial technology and to beautify industrial products for daily use in order to elevate their market value.²⁶⁾

According to the English prospectus of the school, the Tokyo Koto Kogei Gakko was called the Tokyo Higher School of Arts and Technology, and *Kogei Zuan* was called technological design.²⁷⁾ Koichi Fukui, one of the graduates, talked about the school's name as follows.²⁸⁾

I could say that *Kogei* of the Tokyo Koto Kogei Gakko meant not craft but industrial design. In this meaning, it could be said that the Tokyo Koto Kogei Gakko was a college of design that intended to unify art and technology. The school's English name, the Tokyo Higher School of Arts and Technology, which was listed in the student ID card, pleased many students who went to study abroad.

Japanese design education to unify art and technology was started at the Tokyo Koto Kogei Gakko in the 1920s, toward which Eizo Hirayama and Hisashi Matsuoka, as pioneers of industrial design education in Japan from the 1870s to the 1900s, made a large contribution.

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26) ——— Ibid., pp.26-31.

27) ——— *Bulletin of Japanese Society for Science of Design*, No.42, 1983, p.46.

According to memorial articles of the 30th anniversary of foundation of the school, the Kyoto Koto Kogei Gakko was called the Kyoto Higher Technical School.

28) ——— Ibid.