

# Representation of Nature in Design — Shinzo Komuro and Christopher Dresser

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## Abstract

Shinzo Komuro (1870–1922) was the first educator to publish a design theory during the Meiji period. His colleagues at Tokyo Technical School focused on the South Kensington method of design education, while Komuro introduced the abstraction of botanical motifs as ‘Benka,’ translating from ‘conventional treatment.’ This methodology suggests composing design patterns based on sketches of natural objects. Although Komuro quotes Christopher Dresser’s design treatises from *Principles of Decorative Design* (1873) in *Ippan Zuanho* (The General Design Method), published in 1909, few studies have focused on Komuro’s adoption of Western design methodology, how Komuro imported the word Benka, and the meanings of this term [1]. This paper outlines how the doctrines of the Government School of Design were accepted in Japan; it further discusses how Komuro adopted and modified Dresser’s botanical representation. Consequently, the word Benka originated from its use in the Government School of Design, which Komuro later adapted to construct a systematic design teaching in Japan.

**Keywords:** *Design Education; Government School of Design; Tokyo Technical School; Design Methodology*

## Introduction

Christopher Dresser (1834–1904) was among the early British industrial designers of the late 19th century. After graduating from the Government School of Design (renamed the National Art Training School in 1863, and now the Royal College of Art), he became a botanist engaged in design education in South Kensington. His school followed a methodology of creating new ornamentation using botanical motifs, called conventional treatment. This doctrine was promoted by the government official Henry Cole (1808–82) and his circles [2].

However, noted English art critic John Ruskin (1819–1900) condemned the method of abstracting ornaments. In his lecture ‘The Deteriorative Power of Conventional Art over Nations’ (1858), delivered at the South Kensington Museum, where the Cole circle was based, Ruskin stated that the Indian artefacts Cole et al. admired and collected ‘do not represent the facts of nature at all,’ and that the systematic teaching of the Government School of Design was off the mark [3]. Ruskin was an ardent critic of the school’s pedagogy. Although not noted in previous studies, Ruskin and Dresser’s art theories contain critical references to the other. For instance, in the chapter on ‘Adaptation’ in *The Art of Decorative Design* (1862), Dresser considers Ruskin a representative of the ‘natural school’ and criticizes him by name [4]. He further argues that some of the principles of ‘The Beauty of Leaves’ in *Modern Painters*, Volume 5 (1860), were inspired by Dresser. Thus, his views conflict with Ruskin’s representations of nature.

Similarly, Shinzo Komuro, who formerly taught at Tokyo Technical School’s Department of Industrial Design, also quotes Ruskin in the introduction to *Ippan Zuanho* (*The General Design*

*Method*, 1909) [5]. Komuro also quotes Dresser's discourse in chapter 5 as well [6]. We thus pose the question: When and how did Komuro encounter British design theory?

## 1. The Tokyo Technical School and Shinzo Komuro

In 1897, while working as an elementary schoolteacher in Akita Prefecture, Shinzo Komuro enrolled in the Industrial Design Department of the Industrial Teacher Training Institute attached to the Tokyo Technical School (*Tokyo Kogyo Gakko*). The precursor of this school was the Tokyo Vocational School, which was established in 1881, renamed Tokyo Technical School in 1890, and later became Tokyo Higher Technical School in 1901[7]. In 1899, when the Industrial Design Department was established as the school's primary department, Eizo Hirayama (1855–1914), who had studied at the Vienna School of Arts and Crafts, was appointed head of the department, and Umataro Ide (1870–1910) was appointed deputy head of the department. Ide studied in England and worked as a textile designer [8]. He was also a member of the first staff member of the Ministry of Agriculture and Commerce's overseas training program and was familiar with the latest trends in Western design. In 1906, Ide retired from the department and the school welcomed Hisashi Matsuoka (1862–1942)—a Western-style painter who studied in Italy and devoted himself to improving Japanese designs. He took over the position of the head of the department.

In 1914, however, the department was abolished by an ordinance of the Ministry of Education. After 17 years, the institution was closed. Thereafter, the Department of Industrial Design of Tokyo Higher Technical School was transferred to Tokyo School of Fine Arts (*Tokyo Bijutsu Gakko*). In 1921, the Tokyo Higher School of Industrial Design (*Tokyo Koto Kogei Gakko*) was newly established by volunteers associated with the former school, and has since become the current Faculty of Engineering at Chiba University.

At the time of Komuro's enrolment, the department sought to introduce Western educational methods. This was because the Japanese designs exhibited at the 1900 Paris Exposition were unpopular, and the need for design reform and education was discussed in industry circles. Ide's overseas experience and insights must have been useful for the school. In 1898, he completed an evening course at the School of Fine Arts in New Cross (now Goldsmiths College, University of London). Since no record of his education here has survived, it is unclear what kind of specialized education he received. However, Frederick Marriott's (1860–1941) biography is instructive. Marriott was a painter who served as the director of the school from 1891 to 1925 [9]. Importantly, he was a potter who had studied at the Coalbrookdale School of Art, a regional branch of the Government School of Design, and the School of Design in London for three years as a national scholarship student since 1879. In other words, he adopted the South Kensington method of education. It is possible that Ide learned about design education from Marriott.

## 2. British Design Literatures Referenced by Komuro

Chiba University Library contains 1,292 books, part of a collection of literature at the former Tokyo Higher School of Industrial Design. Among the registered foreign books, 130 were published in Britain between 1851 and 1930. This was followed by 119 books published in Germany and 78 in France. Notably, among these were design instruction books by teachers studying in Government Schools of Design, such as Ralph Warnum, Owen Jones (1809–74) and Dresser, related to the Cole Circle. Besides these are also books by Walter Crane, who also served as the principal of the Royal College of Art, and Lewis Day, who was part of the Arts and Crafts movement. In addition, the collection includes the fifth volume of Ruskin's *Modern Painters*, a treatise on the beauty of leaves.

Komuro's *Ippan Zuanho* lists 16 Western books as references at the beginning of the book. Of particular note are the contemporary instructional books by Frank Jackson (1831–1904) and James

Ward (1851–1924), who were teachers at provincial governmental schools of design. Jackson became an apprentice teacher at the Birmingham School of Art in 1864 while he was still a student there and finally served as an assistant principal from 1877 to 1898. In contrast, Ward studied at the Government School of Art in Belfast, became a national scholarship student in South Kensington from 1873 to 1876, and worked with Sir Edward Poynter to assist in the decoration of museums. He then became headmaster at the Macclesfield School of Art from 1888 to 1907, where he authored many teaching books and established a design curriculum. Dresser's earlier book, *Principles of Decorative Design*, was mainly concerned with the theory and principles of design and did not deal with the methodology of teaching students to draw decorative designs. Instead, Jackson and Ward's books are characterized by illustrations and detailed explanations of how to draw designs (Figs. 1 and 2). This practice was taught in South Kensington during their school days, as evidence by their illustrations, which exemplify the similarities with Dresser's figures in his books.

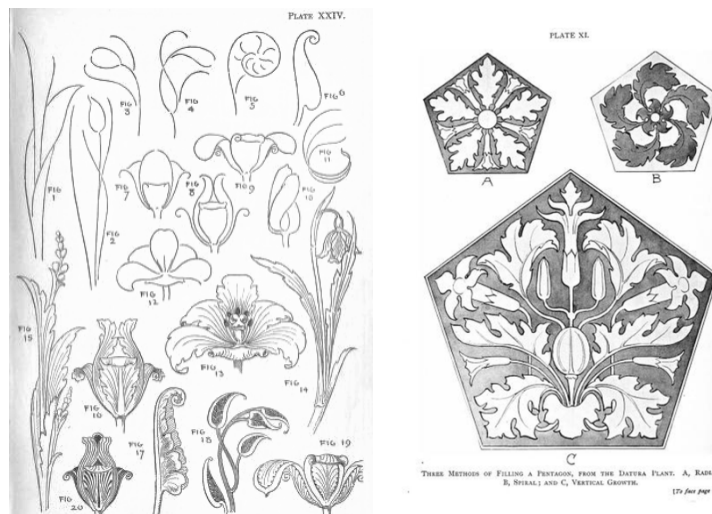


Fig. 1 : Frank Jackson, *Theory and Practice of Design* (Chapman and Hall, 1894)

Fig. 2 : James Ward, *Progressive Design for Students* (Chapman and Hall, 1902)

Ownership stamps identifying when the collection was formed indicates that Jackson's *Lessons on Decorative Design* (1891) was purchased in 1902 with an inscription on the title page of the book. This means that the book was owned by Tokyo Higher Technical School. Jackson's second book, *Theory and Practice of Design* (1894), was published in 1896. Notably, Dresser's *Principles of Decorative Design* was purchased in 1896, suggesting that it was collected to establish an industrial design course at the Industrial Teachers' Training Institute. Ward's *Progressive Design for Students* (1902) was purchased in March 1901 and acquired at the same time as its publication in England. Chiba University Library did not have original book catalogues from that time. However, library stamps indicate that instructional books of government design schools were collected early for design instruction.

### 3. What is Benka?

The basis of British design instructional books is conventionalization. Teachers at Tokyo Technical School referred to this as a model for instruction. Richard Redgrave (1804–88), a Superintendent of Art in charge of the curriculum at the Government School of Design, published *A Century of English School Painters* as far back as 1866. In this book, he states that his methodology, based on the laws of plant growth, was 'entirely new' that none of the continental decorative artists had done before. The plants were geometrically composed and flattened. His collection of lectures and writings in *Manual of Design* (1876) was accompanied by two types of illustrations in which a realistically

sketched plant was transformed into its decorative use. On the 22nd stage of the school's national course of instruction, called 'Basic Design,' students were trained to take plants as motifs and compose them into geometric spaces, and in the 23rd and final stage, 'Applied Design,' students were required to create new decorations from nature to demonstrate their creativity.

In 1842, William Dyce (1806–64) defined the outline of a plant structure as a 'conventional form' in *the Drawing Book* of the Government School of Design. In this case, geometry forms the basis of a decorative design. Later, Jones, who worked with Redgrave to develop the principles of design, explicitly stated this in Proposition 8 of *Grammar of Ornament* (1856), which was used at the school, and in Proposition 13, he specifies that 'flowers and natural objects should be conventional representations.' Dresser, who learned from these works, applied an even more rigorous scientific analysis of plants to decorative art. Visual aids of Dresser's botanical art (1854–56) survive in Victoria and Albert museums. In *Principles of Decorative Design*, Dresser clearly states that 'if plants are employed as ornaments, they must not be treated imitatively, but must be conventionally treated or rendered into ornaments' [10]. Further, Jackson's *Theory and Practice of Design* include many illustrations that mirror the visual aids of Dresser's lectures. Ward's *Progressive Design for Students* also contains Dresser-style designs with abstracted plants.

In 1899, Seiichi Tejima, the principal of the Tokyo Technical School, translated Dresser's *Principles of Decorative Design* in the *Journal of the Ceramic Society of Japan (Dainippon Yogyo Kyokai Zasshi)* under the title 'Design Principles' (*Kusi Zuan Gensoku*) [11]. His publication aimed to help manufacturers produce novel designs. Moreover, Ide wrote an essay in 1903 titled 'What is Zuan,' explaining the meanings of the words and types of designs suggested by himself [12]. According to him, 'zuan' is 'rough sketch of a work of art or craft' and 'an artificial and systematic drawing that is carefully considered in terms of shape, color scheme, level of pattern making, people's taste, and suitability or inappropriateness for intended use'. The four types of decorative pattern are as follows: (1) geometrical (*kikagakuteki soshikizu*), (2) ornamental (*karakusamoyouteki soshikizu*), (3) conventional (*tsuzokuteki kondouteki soshikizu*) such as 'a peony flower emerging from a chrysanthemum branch and leaf' and (4) natural (*shaseiteki soshikizu*). The third term—'conventional'—refers to the vocabulary used in the Government School of Design. Notably, Ide translates 'conventional' as 'general and mixed systematic pattern,' offering a different interpretation than what Komuro would later propose. As we will see next, Komuro's publication of *Ippan Zuanho* was largely due to the activities of the journal *Zuan* by Dai Nihon Zuan Kyokai, which was formed in 1901 by teachers and alumni associated with Tokyo Higher Technical School.

#### 4. From *Odamaki* to *Ippan Zuanho*

From 1903, Komuro publicized serial articles 'Tsuuzoku Zuanho' (Common Design Methods) in *Zuan*. In 1907, he exhibited 'Zuan Kyojun Ippan' (Design Methodology) as a panel poster at the Tokyo Industrial Exhibition, and then published *Odamaki (Colombine)* from Unsodo in Kyoto. This was followed by 'Zuan ho Kogi' (Lectures on Design Method) in the same year, and a compilation of these lectures, the first design theoretical book, *Ippan Zusanho*, was published in 1909.

Uniquely, *Odamaki* visually demonstrated the procedure for creating a design from a sketch of plants, how to compose a plane decoration, the geometrical composition, and how to apply the decoration to a vessel (Fig. 3).



Fig. 3 : Dai Nihon Zuan Kyokai (eds.), *Odamaki*,  
(*Sosho Kindai Nihon no Dezain*, vol.7, Yumani shobo [Unsodo, 1907])

The teaching methods in *Odamaki* were clear to any teacher; but the question remains: What inspired Komuro’s *Odamaki* and ‘Zuan Kyojun Ippan’? The most likely source is Ward’s *Floral Studies for Decorative Design: For the Use of Students and Designers* (1902). This is a large-format botanical illustration of 12 native flowers (Fig. 4). This is a visual teaching aid in which a large sketch of flowers is used to analyze the structure of the plant to make it suitable for decoration. Therefore, each part is flattened and redrawn. This method was based on Dresser’s *Principles of Decorative Design*. Given its size (65 cm in height), Ward probably intended to hang it in the classroom or on a blackboard for the students to copy. The same book was purchased from Tokyo Higher Technical School in October 1905. Komuro might have consulted it around 1905 and developed it into a panel poster and *Ippan Zuanho* from 1907 to 1909 (Fig. 5). Remarkably, only three institutions in the world have registered to hold this book: Victoria and Albert Museum, Chiba University, and Kyoto Institute of Technology (the successor of Kyoto Higher School of Industrial Design). This means that government higher schools in Tokyo and Kyoto may have referred to British teaching methodology. Moreover, Kyoto Municipal School of Arts and Crafts (the predecessor of Kyoto City University of Arts) also taught as design practices Benka through Jackson’s *Theory and Practice of Design* (Fig. 6).

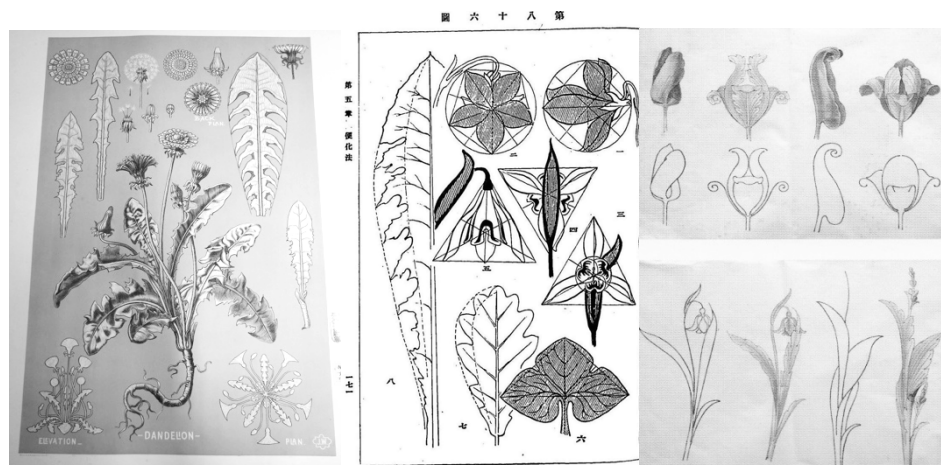


Fig. 4: James Ward, *Floral Studies for Decorative Design* (Chapman & Hall, 1902)

Fig. 5: Komuro, *Ippan Zuanho*, (Maruzen, 1907)

Fig. 6: Anon. ‘Benka zuan’ the Meiji era, University Art Museum, Kyoto City University of Arts [*Zuan kara Dezain he*, Tankosha, 2016] \*See, Fig. 1.

In chapter 5 ‘Conventional Treatment’ (Benkaho) of *Ippan Zuanho*, Komuro cites and directly quotes Dresser: ‘Painting is imitation, but design is thought.’ More importantly, Komuro divided

decorative patterns into two types with his own translation: (A) ‘Realistic Treatment’ (*Shajitsu teki* 寫實的 *Benkaho*) and (B) ‘Idealistic Treatment’ (*Shasoteki* 寫想的 *Benkaho*), stating that ‘after gaining the skills of sketching, you shall abstract accurate depictions, and concentrate on abstract drawing through the study of plants’ qualities, structures, colors, and then, you should draw the universality of natural objects. In this way, you gradually become proficient in idealistic treatment [13].’ This finding echoes Dresser’s argument that all plants manifest the principle of growth in their structures [14] (Fig. 7). However, Komuro mentions the curves of plants and flower forms that are ‘subtly conventionalized in Japanese painting, which is highly regarded around the world, and introduces a conventionalized design based on the traditional Japanese painting method,’ such as line drawings with black ink (*Hakubyo-ho*) and drawings without an outline (*Mokkotsu-ho*) (see Fig. 8) [15].

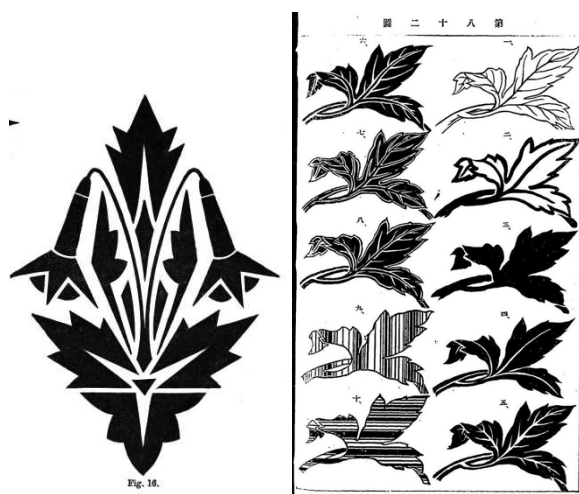


Fig. 7: ‘Conventional Treatment’ in *Principles of Decorative Design*

Fig. 8: Forms of Benka in *Ippan Zuanho*

## Conclusion

In Japan, the lack of training and teaching methods for design teachers was an issue in the 1890s. Soon after, the stimulus of Art Nouveau at the 1900 Paris Exposition provided momentum for the reflection and reform of Japanese design. Among the professors at the Tokyo Technical School, Seiichi Tejima introduced Dresser’s theory on ceramics in 1899, and Umataro Ide submitted his interpretation of the design to *Zuan* in 1903. In the same year, Shinzo Komuro presented the results of his study of British design theory in a journal. After the panel presentations and publication by *Odamaki*, he perfected his design methodology in *Ippan Zuanho* in 1909.

Komuro’s methodology relied on that of Dresser’s. The instruction and curricula in the Government School of Design were developed into Benka by Jackson and Ward via Dresser’s theory as well. The core of the teaching method was the abstraction of plants; Jackson and Ward articulated their methods using plant illustrations, while Komuro acknowledged the importance of design to show the author’s thoughts, plant structure, and its laws of growth through visual aid and discarded realistic representation. Significantly, his practices were not limited to the influence of the West but uniquely adopted the use of the brush in Japanese traditional painting methods.

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## Notes

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6. *Ibid.*, 160.
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13. Komuro, *Ippan Zuanho*, 229–230.
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### **Author Biography**

Yuko Takeuchi is an associate professor at Kyoto University of Advanced Science. She received her Ph.D. in Literature from Osaka University Graduate School of Literature in 2009. She specializes in art and design in Victorian Britain and is interested in comparative art studies, the history of design education, and design theory. Her major papers include ‘A Preliminary Study on Christopher Dresser's Japonisme: Japanese Books Formerly Belonging to Dresser’ (*Journal of the Japan Society of Design*, No. 77, 2021).