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TIFFANY'S MASTERY OF MOKUME  
PARIS 1889

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TIFFANY'S MASTERY OF MOKUME  
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I. Introduction

"The most remarkable triumph of Tiffany & Co., is perhaps their laminated vase," proclaimed the press about the Tiffany silver exhibition at the Universal Exposition at Paris in 1889.<sup>1</sup> Exposition showpieces were designed to be extolled in superlatives, and this vase qualified, not for the originality of its shape or its applied decoration, but for its masterly use of mokume, a Japanese metalwork technique which imitates wood grain.<sup>2</sup> Edward Chandler Moore (1827-1891), Tiffany's chief designer, is credited for his bold use of this technique to create the largest known object ever made in mokume.

The vase pictured in publications in 1889<sup>3</sup> (figure 1) has a balaster-shaped body composed of a mixed-metal laminate resembling tightly burlled wood grain. Contemporary descriptions detail the metallic colors of gold, copper, red, black and

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<sup>1</sup>"Hundreds of Thousands," The Jewelers' Weekly, Vol. VIII, No. 6. (New York, June 6, 1889), p. 47.

<sup>2</sup>Mokume is the Japanese term (literally "wood aspect") for lacquer or metalwork with the appearance of wood graining. The metals and techniques of mokume are explained later in this paper.

<sup>3</sup>In its present form (figures 2-4), the vase is shorn of its ornamental base and neck, having been demoted from the status of art object to a lamp base, with a hole drilled through the bottom for wiring. It is in the collection of the Cooper-Hewitt Museum, a 1976 bequest of Alison Moore Coudert, a granddaughter of Edward C. Moore.

silver of the body, which was lined in silver. It had an ornamental rim of engraved and chased silver and an oxidized silver base, which was mounted on a block of golden ebony.

The vase was thirty-two inches high and priced at \$5000.<sup>4</sup>

Technical innovation in the field of metallurgy in the second half of the nineteenth century was of enormous interest to a public who also enthusiastically embraced Japanese art and culture. Japanese objects incorporating colored metals were acclaimed for their technical artistry and they inspired Western designers to explore new ways of achieving similar effects. Tiffany's international reputation for extraordinary design was established at the Paris Exposition of 1878, primarily through its collection of luxurious functional objects for the home made of silver with mixed metals in the Japanese style.

By the Paris Exposition of 1889, both customer and press expected to be dazzled by the output of the prestigious house of Tiffany, and they were not disappointed by Moore's tour de force in mokume. Even the Japanese were awed:

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<sup>4</sup>Illustrations and descriptions can be found in "The Paris Exposition," The Art Journal (London, September 1889), p. xlii, and in The Jewelers' Weekly cited above.

As late as 1987, the whereabouts of this vase was listed as "unknown" to Tiffany scholars. See Frances Safford and Ruth Caccavale, "Japanesque Silver by Tiffany and Company in the Metropolitan Museum of Art, Antiques (October 1987) p. 819.

They have very beautiful works of our mokume metal, . . . which is fruit of their hard study and work of many years. . . So I warn our manufacturers at home note these facts and in the future to be more studious and enterprising.<sup>5</sup>

## II. The Technique of Mokume in Japanese Metalwork

Mokume is created by welding together layers of metals of different compositions into a solid sheet which is then manipulated to create a pattern of wood grain or bark. In the fifteenth century, this "metal sandwich" was composed of layers of iron of various thicknesses which were twisted and otherwise worked to create a pattern of raised ridges resembling the three-dimensional aspect of the bark of a tree. By the mid-sixteenth century, the Japanese artisan was using the rough wood-like appearance of the metal as a foil against which decorative inlays of colored metals could be applied or inserted.

In the eighteenth century, non-ferrous or "soft" metals were often substituted for iron. These soft metals of silver, gold, copper and special Japanese alloys<sup>6</sup> were used to create a polychrome surface (figure 5).

The pattern was accomplished by a process of cutting through or punching out the layers of metals and then compressing the layers into a plane (figure 6). The resulting colored metal plane was treated with an oxidizing process called

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<sup>5</sup>Translation from a Japanese newspaper, 1889. No author. (Tiffany Archives, Parisippany, N.J.).

<sup>6</sup>Alloys are varied combinations of metals which have their own color character and working quality.

"pickling" to give different colored patinas to each of the metals. The esthetic effect of the mokume was achieved by the contrast of colored metals in a wood-grained or marbled pattern. There are different Japanese terms used for the various types of wood grain (figure 7). For the purposes of this paper, the term "mokume" is used for laminated-metal objects, those imitating wood grain as well as those with marbled effects (miyu-nagoshi). The word "hada" means "skin" and mokume-hada literally means outerlayer of burl-wood grain.<sup>7</sup>

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<sup>7</sup>See Oppi Untracht, Metal Techniques for Craftsmen (New York: Doubleday & Co., 1968) pp. 182-184, for a detailed explanation of this technique and its current usage. Untracht is a good reference for metals and their properties.

The Tiffany Archives has a pamphlet which belonged to Moore called The Colours of Metals and Alloys. A Lecture, by W. Chandler Roberts-Austen (London, 1887), which analyzes Japanese metallurgy in great detail. Figure 6 is a diagram from that pamphlet which illustrates the mokume technique. Herbert Maryon's Metalwork and Enameling (New York: Dover Publications Inc., 1971) analyzes this diagram:

The Japanese workman takes thin plates of various metals or alloys . . . and solders them together. In the thickish plate thus produced conical holes are bored, or grooves cut, as shown at the right half of the diagram. These cuts penetrate the various layers and expose them in rings or bands. The plate is then turned face downwards on to a stake, and hammered until the depressions in the front surface are levelled out. . . . By another method a many-layered plate, prepared as before, is hammered or rolled out. It is then beaten up irregularly from behind with repousse tools as shown at the left half of the diagram. The bumps in front are then filed flat and parts of the

various layers of which the plate is composed become visible in front. The different strata exposed form an irregular marbled pattern (page 166).

The artistry of Japanese metalwork can be studied through the development of the tsuba, or Japanese swordguard (figure 8), treasured for its beauty of texture, color and surface decoration. By the eighteenth century, the making and decoration of swordguards had evolved into a serious industry, employing thousands of highly skilled craftsmen working in more than sixty esthetic schools, which became known for their distinctive artistry and "secret" formulas in working with metals.

As the working of metals to create pleasing effects in color developed into a specialized art as well as a lucrative industry, Japanese craftsmen discovered innumerable color variations made possible by copper-based alloys (figure 9). The most commonly used were shakudo, an alloy of copper with about four percent gold, giving a blue-black surface, and shibuichi, an alloy of one part silver and three parts copper, imparting a silver or brown-grey color. Color variations within these alloys depended upon the exact composition of metals, as well as the pickling solutions used for the final patina.<sup>8</sup>

It is curious that while the abundance of tsubas for study attest to the multitude of techniques employed in their

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<sup>8</sup>See B.W. Robinson's The Arts of the Japanese Sword (London: Faber&Faber, 1961), pp.61-64, and the Cooper-Hewitt Museum's Tsuba(1980) for the history of Japanese sword fittings and the various metalworking techniques used.

See also Roberts-Austen's The Colours of Metals for an analysis of the composition of various alloys and of pickling solutions.

decoration, examples of works in mokume are difficult to find. A rare example is a tsuba (figure 10), composed of silver, shakudo, and red copper, which closely resembles the tight burl of the 1889 vase. A late nineteenth-century vase (figure 11 b.c.), with a body of copper, shakudo, and silver, has a pattern so similar to Tiffany's vase, that it is possible that it might have been inspired by Moore's use of mokume, or by other interpretations of it in the West. The Japanese were so eager, especially in the early years of the Meiji Period (1868-1912), to please the Western customer that they rejected aspects of their traditional culture in favor of what they perceived to be foreign taste.<sup>9</sup>

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<sup>9</sup>See "The Meiji Period," Japanese Art and Design (London: Victoria & Albert Museum, 1968), pp. 180-204, for examples of Japanese emulation of Western taste.

See also Uyeno Naoteru's Japanese Arts & Crafts in the Meiji Era (Tokyo: Pan Pacific Press, 1958), for the impact of the Meiji restoration of 1867 which abolished the feudal aristocracy and the bearing of swords. Up until this time, arms and armour were the most important decorative objects in metalwork, made to display the importance and wealth of the Shogunate and the feudal lords. With the disappearance of the traditional market for metalwork, artisans were employed in designing and manufacturing vases and other ornamental bronze work for foreign export. As a means of strengthening its finances, the Japanese government encouraged its own industries to gear its designs to Western tastes. In 1871 the word bijutsu began to be used to differentiate craft objects from functional works in an effort to produce ornamental "artistic" goods for export.

III. Transmission of the Japanese Esthetic to Tiffany & Co.

The celebrated opening of Japan to the West by Commodore Matthew C. Perry in 1854 is well documented. Not only were commercial ties established, but the communication of the Japanese esthetic had an enormous influence on Western culture.

The public was first introduced to Japanese arts and crafts at the London exposition of 1862, through the exhibition of the collection of Sir Rutherford Alcock, the first British Consul to Japan. Capitalizing on the West's enthusiasm for its culture, the Japanese government exhibited at the Paris exposition of 1867, and in years following embarked on an aggressive marketing campaign to supply eager markets. By the Centennial exposition of 1876 in Philadelphia, Japanese firms had successfully opened retail outlets in New York and in Europe.

New collectors avidly acquired Japanese objects (figures 8-11a) and became students of the Japanese esthetic. This enthusiasm was fanned by an outpouring of art books and periodicals covering all aspects of Japanese culture.<sup>10</sup>

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<sup>10</sup>See William Hosley, The Japan Idea (Wadsworth Atheneum, 1990), pp. 299-46, for an informative if somewhat breezy account of "selling Japan" to the West in which he states that the Japan "craze" would not have taken off without the support of the art book and periodical industry. A recent study accounted for almost 2900 "items of literature" on the Japanese style and art movement in the late nineteenth-century (p.45).

The massive collections of Japanese objects such as the tsuba formed at this time presented a new opportunity for research and scholarship on Japanese schools of art, styles, and techniques, with interest in this subject continuing into the twentieth century. See Joly and Tomita.

