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Panel Title: **From Kitsch to Art Moderne: Popular Textiles for Women in the First Half of Twentieth-Century Japan**

by Arai, Mutoh, and Wada

(for introduction to panel, see paper by Wada)

Hogushi and Heiyo: Methods of Creating Painterly Images in Woven Textiles

by Kazuo Mutoh

Kiryu Orijuku Textile Archive and Study Center

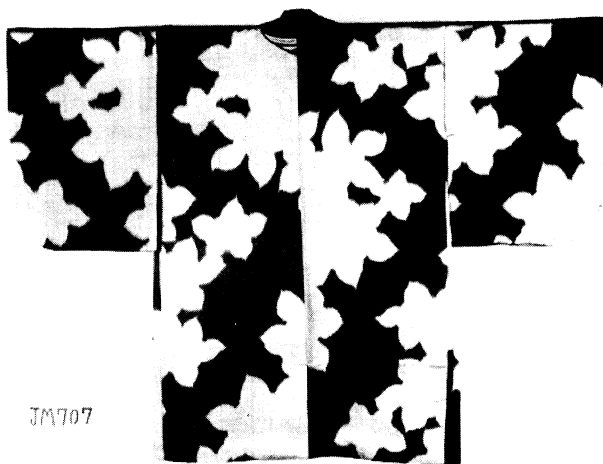
Proto-Meisen

The term *meisen* generally refers to plain-weave silk cloth patterned with woven (not printed) stripes or *kasuri* and made into kimono, *haori*, and *nen'neko* (literally “jacket sleeper,” a padded coat worn during the autumn and winter months for carrying babies on the back). In the first half of the twentieth century, almost all Japanese women were familiar with *meisen*—as ordinary, everyday wear for the upper and middle classes and as dress-up kimono for working-class and country women. In the twenty four years between 1913 and 1937, according to the census, 200 million bolts (*tan*) of *meisen* kimono cloth was produced.¹

Meisen originated in the silk and cotton producing centers including Isesaki, Chichibu, Kiryu, Hachioji, and Ashikaga in the Kanto region. The textile makers were very industrious in devising new methods and new effects to capture the market. Around 1907 (Meiji 40), many weaving centers tried to perfect pictorial or print-like ikat (*moyo gasuri*), which was most effectively executed with printed warp ikat (*hogushi gasuri*). The term *hogushi* is derived from the verb *hogusu*, meaning to unravel or to take apart, and it implies the process where a long warp thread (50 meters or more) is sparsely woven with a temporary weft to keep the warp threads in order during the printing. After steam setting of the dye on the warp and before the warp is woven, the temporary weft has to be taken out on the loom—hence the name *hogushi*.

The patterns that are characteristic of *meisen* appear in the early nineteenth century. However, proto-*meisen* weaving can be traced to the late eighteenth century Tenmei Era, during the

Edo period. Toward the close of this peaceful feudal period that had lasted for 250 years, many townspeople, especially merchants, had become quite prosperous. In defiance of the ruling power, some gave expression to their wealth through clothing and accessories. The shogunate government responded by creating the sumptuary laws to suppress the outward display of wealth, prohibiting, for example, the use of gold embroidery, precious red safflower dye, or all-over small *shibori* dots (*kanoko shibori*). The commoners resorted to using *tsumugi* (subdued homespun) and *kasuri* for outer



[Fig. 1, 1930s or 40s] Silk *hogushi gasuri* haori from Ashikaga or Chichibu; Wada collection.

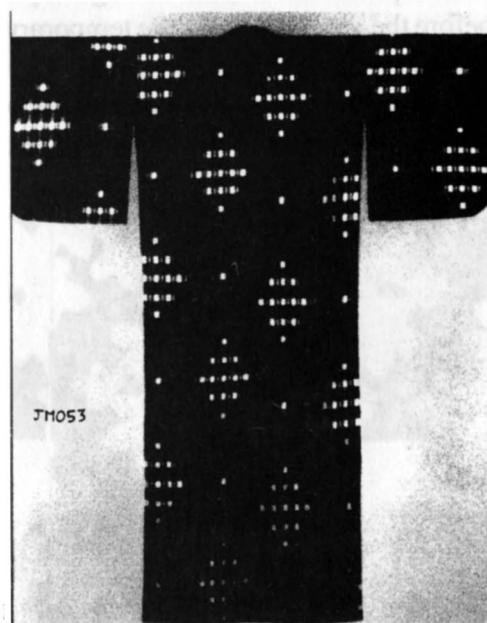
wear. They especially favored costly *Ryukyu tsumugi*, which was one of the finest silk *kasuri tsumugi* from the southern islands yet looked like country homespun at first sight.² However, the ordinary folks could not afford *Ryukyu tsumugi*, so they settled for inexpensive copies made in the Kanto region called *tama tsumugi*, which is woven with duppioni silk (*tama ito*), or with a silk and cotton blend. This type of fabric was not very strong and was prone to pilling. An improved version of this type of *tsumugi*, called *mesen*, a term connoting a high level of discernment, became popular among the middle- to lower-class people. Scholars believe that this term *mesen* transformed to *meisen* later.³

Present-day *meisen* first appeared around 1887 (M 20) in the silk and cotton producing centers of Isesaki, Chichibu, Kiryu, Hachioji, and Ashikaga in the Kanto region. The name *meisen* can be traced to *mesen*, yet the textile itself is a direct descendant of silk cloth called *futo-ori* or *futori*, which was produced in Isesaki and Chichibu.⁴ It was woven with *tama ito* warp, and the weft was the coarser silk, a type of noil (*noshi ito*) which is a byproduct or waste that comes from reeling cocoons. In Kiryu and Hachioji, proto-*meisen* was called *fushi ito-ori* and had a warp of reeled silk (*hon kenshi*) and a weft of *tama ito*.⁵

Early Meisen

The early *meisen* weaving consisted almost entirely of subdued stripes. In about 1877 (M 10), there appeared simple warp ikat, weft ikat, and the character number 10, which looks like a cross, +, (*Jujigasuri*), and the character for water well frame, which looks like a number sign, #, (*Igetagasuri*), see figure 2. By 1888 (M 21), more complex patterns had emerged—small *kasuri* (*kogasuri*) with thirty to seventy design units across the width of a kimono cloth of fourteen inches (*Kogasuri*) and arrow feather or flame pattern (*Yabane gasuri*). The weft was often made of machine spun silk yarn (*kenboshi*).⁶

Machine spun silk yarns were first imported from England and France in the beginning of the Meiji period. By 1880 (M 13), with the domestic production of yarn underway at newly built spinning mills in Japan, the use of machine spun yarn increased dramatically. The quality of cloth declined, and this became an issue of national concern. However, compared to reeled silk yarn, machine spun silk yarn had a uniform thickness and suffered minimum irregularity in tensile strength. It was therefore suitable to use as *kasuri* yarn to obtain accurate alignment of designs when the yarns were woven. Especially when *tsumugi*-type machine spun silk (*tsumugi kemboshi*) of 135/2 became available for warp ikat yarns, *kasuri* patterns in the Kanto region became much finer and produced 80 to 120 design units per width of the kimono cloth.⁷ Around this time changes in the materials used for textile production as well as changes in *kasuri* techniques occurred. For example, the development of board-clamp resist ikat (*itajime*



[Fig. 2, 1930s] Silk *ogasuri* kimono with variation of *Jujigasuri* and *Igetagasuri* patterns from Isesaki, Wada collection.

gasuri) technique and related weaving structures; the introduction of the fly-shuttle floor loom; and the importation of chemical dyes resulting in color ikat technique (*iro gasuri*) all contributed to giving a foundation for *meisen* production.⁸

Meisen was made of silk and was used by many women for dress up occasions, which demanded fashionable colors and patterns. This prompted the popularity of large ikat patterns (*ogasuri*, see Figure 2) in bright colors, a departure from previous smaller ikat in subdued browns, blues, and black. Composed of simple hand-bound ikat warp and weft yarns, the patterns were symmetrical and geometric in design. Around 1915 (Taisho 4), the picture-frame weft ikat (*osadai gasuri*) technique appeared, which made large ikat *ogasuri* patterns more interesting by achieving curvilinear and pictorial designs.⁹ Around 1910 (M 43), other techniques were developed, such as board-clamp ikat (*itajime gasuri*) with brown edges (*cha-ashi*¹⁰) and board-clamp picture-frame ikat.¹¹ Further discussion of these techniques has to be deferred to another occasion.

Popular *Meisen* Techniques

Kasuri patterning methods for *meisen* production can be divided into two basically different categories. One was a straightforward resist-dyeing approach in which hand-tying or board-clamping of a skein of yarn follows a predetermined design. In the second method, stencils were used to print onto a group of weft or warp yarns stretched out on printing board (see figures 3 and 4), a unique technical development which utilized an already existing stencil dyeing process.¹²



[Fig. 3, 1998] Long printing tables with weft yarns wound on a board being printed.

At first, stencils were used to pattern warp yarns before weaving, a process called *hogushi gasuri*. Subsequently, a means of stenciling on the set of weft yarns to coordinate the warp pattern was successfully devised, resulting in a finished image that was more detailed, with greater depth and with many shades of colors. This process was called *heiyou gasuri*. Details of the developmental processes that led to the final solutions in *hogasuri* and *heiyo gasuri* are discussed in the following:

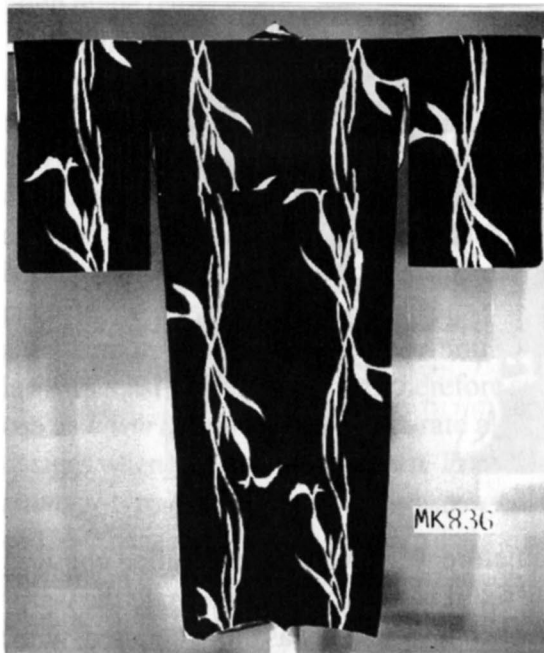


[Fig. 4, 1998] Dyer Naganuma Shigeru, in Isesaki, stenciling dye paste onto yarns.

Hogushi Gasuri: Trial and Error

In Isesaki, Shimojo Yaichiro and Shiraishi Kai worked on the following.¹³

- Resist indigo dye method (*bosen aizome-ho*): temporarily woven white warp yarns were patterned using stencil paper with resist paste, then dyed in indigo, resulting in white designs on blue ground. However, it was not marketable because the resist paste they used with strong indigo vat caused the silk yarns to weaken.
- Discharge method (*bassen-ho*): temporarily woven dyed warp yarns were patterned using stencil paper with discharge paste, then washed resulting in white designs on colored background. However, the color fastness was not satisfactory and when they improved the fastness, then discharging of the color was difficult, and the white designs tended to yellow.
- *Makizuke nassen-ho*: temporarily woven white warp yarns were wound over a special board where resist paste was applied with stencils. Then sulfate dye was applied for the ground color.
- Temporarily woven dyed yarns were discharge printed and dyed with dye paste, then steamed to set the dye and activate the discharge. They were washed, sized, and wound on a big roll to be put on the loom. However, the yarns tended to get out of line when washed before sizing and the resulting designs were not so clear.



[Fig. 5, 1952-53] Silk *heiyo gasuri* kimono from Isesaki, Mutoh collection.

In Ashikaga, the first *hogushi gasuri* was dye and discharge (*nuki utsushi* or *chaku shoku bassen*). The warp yarns were patterned with stripes or plaid or sometimes dyed in variegated colors, then the dye discharge medium was stenciled on, frequently using floral patterns. However, discharged white did not appear clean, and basic dye (*enkisei*) was not very colorfast.¹⁴ Later direct stenciling of the dye paste became the preferred process since it produced clearer colors and made it possible to use multi-colors.¹⁵

In Chichibu, *moyo gasuri* or *hogushi* began in 1908 (M 41) as a result of Sakamoto Sotaro's experiments. He used a flannel cover over the long printing table, and the warp yarns without temporary weft were laid on the printing table and patterned with stencils and dye paste. Afterwards the patterned yarns were wound up in a big roll with the flannel cover and steamed. He used bunched up felt to apply dye paste instead of the usual printing brush. Stencils often had floating designs with three connections to the frame. The dye paste was made of alizarin dye and wheat flour. The result was satisfactory.¹⁶ Later, improvements were made in the paste recipes. Each dyer had his own preference, but in Chichibu, yam flour (*kon'nyaku*) became the choice material.

As noted above, the makers in the Kanto region were rigorous about experimenting with methods and materials, especially in the new method of *hogushi gasuri*, which, along with *ogasuri*, large ikat design, became one of the major patterning processes for *meisen*. Both methods, however, had their shortcomings. The *hogushi gasuri* method offered more design and color possibilities but the weft yarns were solid, causing the finished weaving to look somewhat toned down. With *ogasuri*, the design appeared crisp, but it was difficult to express curvilinear lines or diagonal lines. The textile makers, utilizing the advantages of both methods, developed the following techniques:¹⁷

- *hogushi heiyo ogasuri*: Around 1918 (Taisho 7) they created a way to use *hogushi* for warp yarn, and for the weft, to place a particular design to go with the warp design. In order to make the patterned weft yarn, the method of *osadai gasuri* was used first. Although the warp and weft both were patterned to go together, the methods were different. The alignment of the design was difficult, and creating the weft ikat yarn was time consuming. It was aesthetically successful, but commercially not so viable. Later this weft ikat was used as an accent to go with the *hogushi* warp and eventually developed into *han heiyo gasuri*.
- Makers of *hogushi gasuri* around 1921 (T 10), found the image on the warp difficult to print straight, but discovered that by adding one red or black yarn in the center of the width during the warping of the yarns, the center of the *hogushi* design could be placed more accurately, which made matching the weft ikat pattern to the warp pattern much easier.

Heiyo Gasuri

Around 1930 (Showa 5), the Hirata Company in Isesaki succeeded in developing more efficient methods of making patterned weft ikat yarn. A set of weft yarns were wound around a board the same width as the woven cloth and the same length as the repeat of the design, and using the same stencil for the warp printing a pattern was stenciled on to the stretched weft yarns on both sides of the board. The patterned weft yarns were dried and removed with the



[Fig. 6, 1998] Improvement in equipment to wind weft on a board, *yokoita makaki*, for printing, Isesaki.

lining paper from the board and steamed to set the dye, then they were unraveled and woven. The winding of the weft on the board was improved by the development of a tool (see figure 6) in Isesaki which quickly made the weft yarns lay evenly spaced, hence *heiyo gasuri* became synonymous with Isesaki *meisen*.

Figures 7-9 show the weft yarns wound on the board, with the newspaper separating the yarns from the board. This particular amusement park design was made using fourteen stencils on the weft to complete the multicolored design. The same amusement park design will also be printed on the warp yarns, normally fifty meters, sometimes over 200 meters, at once. The design for the warp must be separated again into a certain number of stencils for the layering of colors. It is up to the producer or designer to determine the number of stencils to be used for either weft or warp, which may be different. Designers made careful decisions for the color separations to achieve the desired result. Often different colors were used for the weft than for the warp to create a subtle nuance in color by combining the warp and weft threads when they were woven together. The Isesaki weavers wove both *heiyo* and *yokoso gasuri* on a floor loom by hand (figure 10), so that the matching of the design on weft and warp was done attentively and accurately. Using this



[Fig. 7] This shows the darkest color paste stenciled on the weft. It is the first layer of paste that always must be applied before the second stenciled layer, which is the resist paste to reserve white.

method, *meisen* producers achieved greater depth in color, and were able to create very complex textured images on a woven surface. These painterly images are a noteworthy aesthetic achievement in *meisen* production.



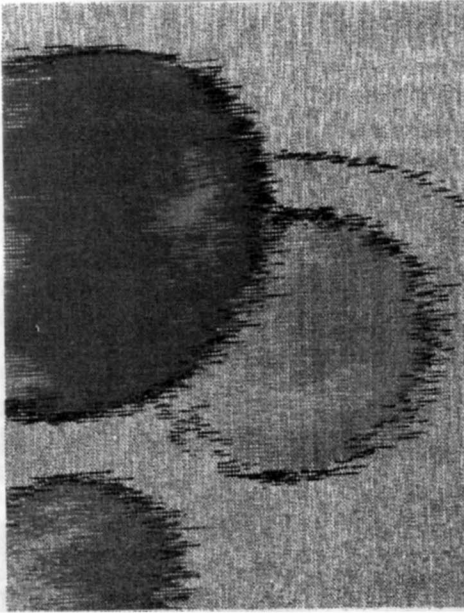
[Fig. 8] This shows the process of layering colors with different stencils.



[Fig. 9] The final pattern after using fourteen stencils resembles an oil painting.



[Fig. 10, 1998] Fujii Matsutaro, a weaver in Isesaki, weaving *kasuri* by hand.



Yokoso Gasuri

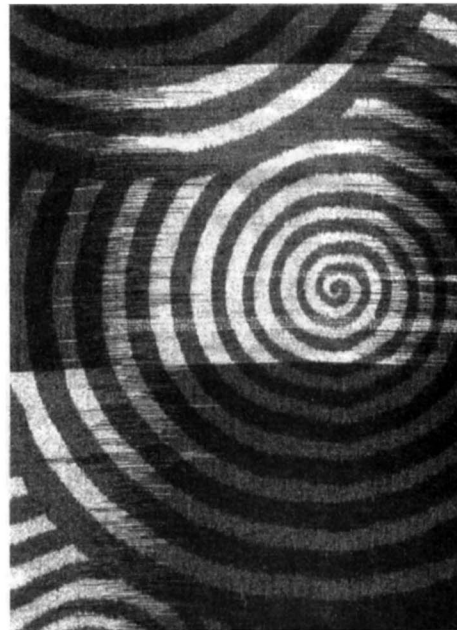
This type of *yokoita maki nassen ho*, a technique developed for *heiyo gasuri* to stencil print the weft yarns in pictorial designs, enabled makers to produce free form, multicolored all-over continuous patterns of weft ikat *meisen*. Compared to *hogushi*, this process allowed the makers to produce smaller multiples, but lacked the richness and depth of *heiyō gasuri*, which of course was more expensive to produce. It was called *yokoso gasuri* (all weft ikat).

[Fig. 11, first half of twentieth century] Enlargement of *yokoso gasuri*, showing pattern printed on weft yarns; Wada collection.

Han Heiyo Gasuri

Looking into the development of looms in the weaving centers in the Kanto region gives us a clue to the technical limitation of the particular center. For example, as explained above, *heiyo gasuri* could not have been produced in large quantities in Ashikaga after 1900 (M 33) when improved looms such as foot-operated ones (*ashibumi shokki*) or automated looms (*riki shokki*) became predominant.¹⁸ However, Ashikaga came out with a combination of *hogushi gasuri* (warp print) with limited use of *kani kukuri gasuri* (weft design) as a highlight. It was simplified further by using skeins in the width of the weaving that were tied and dyed in very simple sections, thus highlighting the warp print design with the weft ikat yarn or giving variegated background colors to the warp pattern. This combination of *hogushi* and simple weft ikat was not only time saving but also very effective visually. This technique was called *han heiyo gasuri*.¹⁹

This kind of simple, large weft ikat pattern could be woven on an automated loom. Special yarns such as *kabe ito* and *pola*, which are normally not used for ikat cloth because they are highly twisted and therefore difficult to tie, dye, and weave accurately, could be used for the simple weft ikat in *han heiyo gasuri*. *Kabe ito* and *pola* yarn, which are made with highly twisted single rayon yarn plied over a silk core, were a new development and a less costly substitute for the summer silk yarns. Ashikaga and Chichibu produced great quantities of *kabe meisen* and *pola meisen* around 1930 (S 5).²⁰



[Fig. 12, 1920s-30s] A popular spiral pattern of *han heiyo gasuri*, from the Kanto region; Wada collection.

Very active development of techniques, looms, materials happened around 1930 to 1935 (in the early Showa period) in the *meisen* production centers, which must be discussed further in another paper. Each development led to more specific improvements in the region as well as in ikat processes in other textile centers in Japan. The information on processes used to produce various types of *meisen* covered in this paper should be useful in identifying *meisen* kimonos and *haori* produced in the Kanto region. However, there were many more variations in materials, printing/dyeing methods, weave structures, and design styles found in *meisen* production. Also, we found a whole range of ingenious processes developed by the *meisen* makers to imitate the coveted *kasuri* cloths from the Southern Islands at a lesser cost. Some of the pseudo *kasuri* textiles demand to be appreciated on their own aesthetic and technical merit. This fact, we feel, is the result of the active and broad market that *meisen* occupied in the first half of the twentieth century Japan.

Endnotes

- ¹ *Zenkoku Meisen Seisan Tokeihyo* (National *Meisen* Production Data)
- ² Nihon Orimono Shinbunsha, *Senshoku Jiten* (Textile Dictionary) 780.
- ³ Itakura Juro and Nomura Kihachi, ed., *Genshoku Senshoku Daijiten*, 672.
- ⁴ Isesaki Orimono Kyodo Kumiai, *Isesaki Orimono Kyodokumiaiishi* (History of Isesaki Weaving Industry Association), 9.
- ⁵ Gunma Ken Daisanbu, *Gunma Ken Orimono Genkyo Chosasho* (Gunma Prefecture Current State of Textile Industry Research Report), 59.
- ⁶ See end note 4, 17,19.
- ⁷ Machine spun silk yarn was less expensive than other types of silk yarn, and while at first it was used only as *kasuri* yarn, it was later used for warp and weft *kasuri* as well as ground yarn.
- ⁸ Kyotoshi Senshoku Shikenjo, *Kyoto Kindai Senshoku Gijutsu Hattatsushi* (History of Modern Textile Technology Development in Kyoto), 40.
- ⁹ See end note 4, 21. In this technique a frame made of two halves of a bamboo reed was used to stretch weft pattern threads which were marked according to a design. The multiple yarns were then tied and dyed according to the pattern threads, creating weft ikat of pictorial or geometric design to enhance warp ikat when they were compounded.
- ¹⁰ Isesaki Orimono Kyodokumiai, ed., *Isesaki Orimonoshi* (Isesaki Weaving History), 28.
- ¹¹ See end note 4, 18.
- ¹² The design was painted by a brush on to the warp yarn already set on the loom. As the cloth was being woven and the warp yarns rolled out of the warp beam, the painting was done directly on the yarns. In order to expedite the patterning process, the weavers adopted stencils. They were able to produce this type of “*e-kaiki*” in a larger quantity. Some scholars believe the “*e-kaiki*” (stenciled warp ikat) influenced *meisen* makers to begin using the *hogasuri* method.
- ¹³ See end note 4, 24.
- ¹⁴ Dr. Isabel B. Wingate, *Fairchild's Dictionary of Textiles*, Sixth Edition, 49.
- ¹⁵ Fujingahosha, *Nihon Kinu Jinken Orimonoshi* (Japan Silk and Synthetic Silk Weaving History), 273.
- ¹⁶ Saitama-ken Chichibu Sen'i Kogyo Shikenjo, *Chichibu Orimono Hensenshi* (Changing History of Chichibu Weaving), 186.
- ¹⁷ See end note 10.
- ¹⁸ Waseda University Keizaishi Gakkai, ed., *Ashikaga Orimono-shi* (History of Ashikaga Weaving), 99-100.
- ¹⁹ See end note 14.
- ²⁰ See end note 10, 42.

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