

Creation Process of *Bingata*

April 18th 2017-

Room19, Honkan (Japanese Gallery), Tokyo National Museum

Foreword

As a joint research project with interns from the Graduate School of the Tokyo University of the Arts, the Tokyo National Museum is producing models of artworks to reveal creation processes.

This year's reproduction project features a garment from Okinawa, made by using the island's traditional *bingata* dyeing technique. With a mass of colorful peony flowers, buds, and leaves, all dyed on a white background, the original work is entitled: *Bingata Garment with Peony Design on White Cotton*. The intricate design structure and vivid colors gave our team ample opportunity to explore this superb dyeing technique that blossomed in the 19th-century Ryukyu Kingdom in Okinawa. What kind of dyeing techniques allow such minutely-detailed flower petals and leaf shapes, and what kind of culture nurtured the colorful style of *bingata*? This display explores answers to these questions through a combination of research, fieldwork, and hands-on reproduction.

Before starting production, the team conducted research at the Shiroma Bingata Studio, run by one of the leading families that has continued production from the Ryukyu Kingdom period. We received much invaluable advice from them concerning

the traditional techniques. Today, however, it is difficult to obtain traditional ingredients for coloring and it was decided after close observation of the original work to take up the challenge of a modern-day reproduction by using currently available ingredients.

We hope that, by following each production process, this display allows you to appreciate the beauty of this traditional expertise.



What is *bingata*?

Bingata is a traditional dyeing craft unique to Okinawa; some say that *bin* refers to color and *gata* means pattern, and appropriately enough it is renowned for its vibrant coloration – a vivid reminder of the tropics – and its stencil and paste line designs. It is thought that in the latter half of the 17th century (period of Second Sho Dynasty of the Ryukyu Kingdom), techniques to produce *bingata* were already

known. However, since historical records are few, and many *bingata* garments and stencils passed down for generations were also lost in the Battle of Okinawa during the Second World War, the true history of *bingata* is unknown. *Bingata* has been considered to be a symbol of authority, only to be worn by royalty and titled nobility; however, recently it has come to light many inhabitants of Ryukyu. From the royal family down to the common people, had worn *bingata* designs on their everyday clothes. The craft of *bingata* has faced many calamities

such as the breaking up of the Ryukyu Kingdom or the devastation of the Second World War. Despite such turbulent times, *bingata* has continued to delight us and much is owed to two of the three leading *bingata* producing families, the Shiroma and Chinen, along with the folk art movement and recognition by researchers in mainland Japan. Currently, the craft of *bingata* is designated as an Intangible Cultural Property of Okinawa Prefecture, and broadly appreciated at home and abroad as a craft symbolizing Okinawa.



Bingata Garment with Peony Design on White Cotton (Original)
Second Sho dynasty, Ryukyu Kingdom, 19th century

The Original artifact will be on display from July 25th to September 3rd 2017 in Room 16 of the Honkan (Japanese Gallery). Please make sure to see it.

Procedure 1 Stencil cutting

The *katagami* (stencil dyeing) technique uses *katagami* (stiff paper stencil) measuring the same width as the fabric. The stencil is made of traditional Japanese *uwashi*¹ paper coated with persimmon tannin²; and in this case, it is used to allow resist paste to permeate those areas that will not be dyed. Commonly in Japanese stencil making, two types of techniques are used to cut the designs: *hikibori* (pulling the knife)³ and *tukibori* (pushing the knife)⁴ but for *bingata* stencils, only the *tukibori* technique is used. The stencil is cut using a dried tofu *rubanji*⁵ as a base and with a special chisel known as a *sigu*. As seen in the diagram on the left, for loose motifs, thin pieces of paper called *tsumi*, indicated in black, are left to connect the motif to the outer frame.



Procedure 2 Placing the stencil

In this process, a resist paste made of glutinous rice, rice bran, and salt is applied. The stencil described above is placed on the fabric and a spatula is used to spread and level the paste evenly over the central design, until finally the *tsumi* lines are covered over. It is important to note the resist paste penetrates the fabric through the stencil cut-outs, and these sections will be undyed, whereas the areas covered by the stencil paper, without paste, will be dyed with color. A sign of the dyer's skill is to place the stencil so carefully that joins do not stand out in the finished design. In addition, in order to dye both sides of the fabric, the stencil is turned over and precisely placed on the reverse side of the fabric, and again the skill is to ensure the front and back patterns align perfectly.



Procedure 3 Coloring

In this process, the fabric is colored with vibrant pigments. To prevent any blurring, *gojiru* (soybean milk)⁶ is first applied to both sides of the fabric, and just before it dries, using a short haired brush, colors are applied working from pale to dark shades. This mixture of pigments and *gojiru* is brushed into areas of fabric not covered with the resist paste. Five colors are used: crimson red, indigo blue, yellow, black, and white. Green is made by simply applying yellow and then indigo. Since just one time of brushing does not impart the full depth of the color, after the whole fabric has dried, the same process is repeated to deepen the shade. If the other side is to be colored, the whole process is repeated on the reverse of the fabric.



Procedure 4 Shading

This "shading" process creates a 3-D effect by the gradation of dark to pale shades, and can be seen here in the reddish-purple leaves. In Process 3, pale color has been applied first and before it dries, just a touch of darker color is brushed and shaded onto the fabric.



Procedure 5 Steaming

This is an important process to fix the pigments into the fabric by steaming the cloth for around one hour in a steam room to loosen the fibers, create gaps between them, and allow the pigments to permeate. This process is useful to prevent color irregularities and loss. In an older technique, instead of steaming the fabric, the pigments were fixed by leaving the cloth to dry in the sun and open air in a process known as *kanashi*.



Procedure 6 Washing out the paste

In this process, the fabric is soaked in water to soften the resist paste, and then, by lightly pulling the fabric on the diagonal, the paste is worked out and floats free. After washing out all the paste, the fabric is dried to finish.



1. Several sheets of *uwashi* paper are laminated with persimmon tannin. In much the same way as plywood, sheets are placed on top of each other with the fibers laid in alternating directions, which prevents warping.
2. A liquid prepared by fermenting astringent persimmon fruits: it has a waterproof effect and a treated stencil is not easily torn despite repeated use or contact with water and paste.
3. A technique to cut a stencil by pulling the *sigu* blade toward the artisan. Since the edge cross sections are even, sharp lines can be cut.
4. A technique to cut a stencil by pushing the *sigu* blade away from the artisan, which is the opposite direction of *hikibori*. Since the edge cross sections are uneven, softer lines with a warm feel can be cut.
5. In Okinawa, *rubanji* is made of dried and oil-soaked *shima-dofu* (bean curd). The moderate amount of oil prevents the *sigu* blade from rusting.
6. *Gojiru* is made by soaking soybeans in water and then squeezing out the liquid. The protein contained in the *gojiru* bonds with carbon dioxide in the air and solidifies, creating a water-repellent effect that prevents pigments and dyes from running. It also glues the pigments into the fibers as described in the next footnote.
7. The pigments are powdered minerals often in vibrant beautiful colors, and also used for Japanese-style paintings. They do not dissolve in water, but exist as suspended particles, and in this state they will not fit into the fabric, but by adding the proteins found in *gojiru*, they solidify and the mineral particles are fixed into the fabric fibers.



Art of dyeing

What kinds of techniques are there to add color? For paper, we commonly use paints or crayons, but for fabrics, we must use a specific dyeing method to prevent color loss when the article is washed.

In *bingata*, to dye a design, pigments are mainly used, many of them powdered minerals in a variety of colors. However, the powder alone will not stick to fibers. By adding *gojiru* or soybean milk to pigments before application, they are fixed to the fabric. *Gojiru* contains a protein that bonds with carbon dioxide in the air and solidifies; this protein acts as a glue, sticking the pigments to the fibers, and the color is then said to be fixed.

In contrast, dye is mainly used to make the background color. Dye contains coloring matter obtained from plants and animals, or more recently, chemicals for synthetic dyes. It dissolves in water and unites with cloth fibers at a molecular level. Many dyes will not wash out in water after being treated with heat, and so the color is fixed onto the cloth by steaming. The end result of dyeing may be similar, but the chemical reactions of pigments and dyes are quite different.

Motifs of *bingata*

Many of the designs found in *bingata* are animal and plant motifs. However, the images of hibiscus or coral, commonly associated today with the island of Okinawa, cannot be found in classical *bingata*. The designs seen in *bingata*

rather originate in other regions, because the Ryukyu Kingdom prospered as a hub of commerce, and diverse cultural influences from East Asia were evident in the kingdom. For example, images of snow-covered bamboo grasses are strong reminders of those in mainland Japan, and the dragon or phoenix designs are reminiscent of Chinese decorative arts. The peony flowers dyed on the *Bingata Garment with Peony Design on White Cotton* are also an auspicious design originating in China. Peonies are gorgeous flowers praised as "the king of flowers," and it is likely they would have been found on garments of the upper classes.

Bingata in Ryukyu Society

Formerly, the colors and designs of *bingata* garments were restricted for each social class. For example, a background of yellow, or the use of dragon or phoenix designs were only allowed for the garments of the royal family. The term *Nahagata* referred to *bingata* worn by the common people, whereas the robes worn by the king and aristocracy were called *Shurigata*, and produced under strict management by government-controlled workshops. The peonies depicted in the *Bingata Garment with Peony Design on White Cotton* are typical of *Shurigata* garments, and examples similar to this design have been found in several other pieces; therefore, it is quite possible to consider that this garment was produced for an upper-class person, and in its time would have been at the height of fashion.

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