Mottled turquoise pattern

Hand-Dyed in Tokyo

Local CREATORS' Market

Kiriko cut-glass print and gradation dye combination

Sumida Textiles, Tokyo

With its network of natural and man-made waterways, Tokyo has been an ideal place for fabric dyeing since the earliest days of the capital. In the Edo era (1603–1868) it was common to see long bolts of kimono fabric rippling in the waters as craftsmen washed the dyed cloth. Although the methods have changed, in modern-day Tokyo the industry remains strong.


Lattice print and gradation dye combination
Three-layer tie-dyed circle motif
Mottled coral dye pattern
Brushed dye pattern
Random spray dye pattern
Blue to orange multicolored gradation

Countless colors on demand

Edo murasaki is a shade of purple with a slight blue tint. Theater aficionados in Japan know it as the color of the cloth wrapped around the head of Sukeroku, the lead character in the popular Kabuki play of the same name. It is one of many hues that can truly be called a traditional Tokyo color. But what colors could possibly characterize the Tokyo of today—a teeming metropolis and cosmopolitan mishmash of fashion that glitters with a vast palette of hues and tints? A number of hand-dyeing shops are striving to recreate that full spectrum, producing colors with remarkable accuracy and speed.

Place an order with a swatch or color chip, and the shop will delve into a formidable databank of colors amassed over the history of the craft to instantly dye your fabric to the exact color of the sample. It's even possible for a client to send undyed fabric and a color sample by courier and receive the dyed cloth on the same day. In Tokyo's concentrated apparel industry, where exhibitions open and close constantly, this is an invaluable service.

In fabric dyeing the mixing and matching of color draws on the three primary colors red, yellow, and blue—except for special cases like emerald green, for example, which is rendered by blending a vivid blue-tinged yellow with turquoise blue. The complexities multiply exponentially from there. Even the same dye will look different when applied to different kinds of fabrics, and apparel makers today often mix fabrics and textures in the same article of clothing. Once a fabric is washed after dyeing, the look of its color changes again. These concerns make colorant blending a complex task indeed, as dyers need to account for subtle changes that occur when the fabric is washed to set the dyes. A neutral gray or beige, in which the three primary colors must be evenly balanced, will turn pink if there is too much red, or appear green if there is too much blue.

And so the mother lode of past data, as well as the artisan's skill in measuring and mixing, is essential to rendering any given color. While some shops, like Uchida Dyeing Works, use computers and spectrophotometers for efficiency measuring and mixing pigments to within 0.0001 percent of a kilogram, in the end the final product depends on the eyes of the people guiding the process. As any dyer will tell you, "We know what to do as soon as we see the color sample."

Hand dyeing also makes it possible to fill small-lot custom orders for 10 to 20 items, a task the larger factories with batteries of dyeing machines are unable to do. Uchida Dyeing Works employs a dozen or so craftsmen, each responsible for five to six dyeing vats that can rotate between orders twice daily. Though small in size, the studio can dye more than 100 different items in a single day.

Buyers in Japan are unforgiving when colors fade before their time—or, worse, bleed—as that is considered low-quality workmanship. With small-batch hand-dyeing of original or one-of-a-kind items, the pressure is especially high to yield exactly the right result. Nevertheless, Sumida's seasoned craftsmen settle into their task matter-of-factly, turning out an endless spectrum of colors.

Above: The seamless gradation of one color blending into another is only possible with hand dyeing.
Left: Computers are used to calculate color blends, drawing from a vast database of combinations amassed over decades.
Below: Just one portion of color samples that cover the full range of hues available.
Photos: Uchida Dyeing Works

Sumida craftsmen show off their own "some-zome" brand T-shirts, designed by Yumika Shiraki and featuring Edo-inspired tie-dye, print, and gradation themes.

A prominent new symbol of the city, Tokyo Skytree is lit up in a shifting kaleidoscope of traditional Edo-period colors.

A trio of hand-dyeing specialists

Perhaps a brief explanation of what is meant by "hand-dyeing" is needed. In the olden days, fabric was dyed over fire in iron vats, the cloth and dye bath churned by hand. While today's factories are equipped with paddle-dyeing machines, the only difference is that the agitation once done by hand is now performed by rotating blades. The overall process, starting with the blending of the pigments, remains very much a hands-on process.

Kawai Dyeing Works uses a proprietary dyeing technique called *azumadaki* that can give soft appeal to even the coarsest of linen fabrics, yielding a look that no machine can match. The adjustments required for different materials and types of weave are far too complex and delicate to be processed by machine; what's more, most continuous dyeing machines are designed for bolts of 500 meters or longer. Kawai's method introduces cloth to the dyeing vats in lengths of 100 to 200 meters, making small-batch orders possible. Dyeing a 1,000-meter bolt of fabric requires the process to be repeated at least five times, but the company has successfully applied this technique to as many as 71 different kinds of fabrics and weaves.

Kuronuma Dyeing receives a steady stream of requests for its silk-screened customized hoodies, T-shirts, and other apparel, turning around nonstop orders for as few as ten to several hundred. Each item is hand-printed, even for designs requiring as many as ten different pigments. The shop is also adept at designs that combine print and dye methods in a single piece of clothing.

Uchida Dyeing Works specializes in gradation dyeing. Batches of 30 to 40 articles at a time are suspended over the dye bath and repeatedly dipped to varying degrees to yield a delicate, seamless effect. At times the articles may even be turned upside-down. It's harder than it sounds—only three dyers in the shop have mastered the technique. The colors flow naturally, one shade blending into the next in a way that no machine can achieve.

These three shops, in collaboration with the Tokyo Textile Dyeing and Printing Cooperative, have united their respective areas of expertise to launch a new Tokyo brand of hand-dyed textiles under the "some-zome" name.

Above: Brush dyeing (blue) and tie-dyeing (black) are brought together in the bold design of this shirt. When colors and textures are combined this way, employing diverse dyeing and washing techniques as well as different dyes and pigments, the possible expressions are limitless.

Opposite page, top left: Silk-screen printing is done by hand, one print at a time. (Kuronuma Dyeing)
Top right: Gradation dyeing is a task for the most experienced. (Uchida Dyeing Works)
Middle left: Even with all the available data, color adjustments are made by an experienced craftsman. (Kuronuma Dyeing)
Middle right: Dye pigments are weighed to an accuracy of three decimal places. (Kawai Dyeing Works)
Bottom left: Each randomly bleached item will have its own unique pattern. (Kuronuma Dyeing)
Bottom right: The paddle-dyeing machine works as an extension of human hands, ensuring even coloration. (Kawai Dyeing Works)