

Shigeuchi Gumi

Braiding the Classic 9-strand Twill Braid

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I began exploring “odd braids” on the *marudai* about ten years ago. It started with a desire to braid the 9-strand *shigeuchi-gumi*. *Shigeuchi* is a single-layer flat braid with a twill structure, most commonly executed with 9 elements. This braid is popular with students of Japanese sword forms, who use it for the *sageo* cords that secure the sheath into the waistband. There were no *marudai* patterns for this braid in any of my English-language books. In time, I developed a pattern, but I wanted to learn more about this unusual braid.

Because *shigeuchi* is such a common braid in Japan, and because it is relatively simple to braid, you might be fooled into thinking that braiding it is easy. However, master braiders regard it as a difficult braid to make well. I am told that Fukui-san said, “If you want to test the skill of a braider, ask them to braid *shigeuchi*. It's something that has to become part of you – posture, breath, pure concentration, and that even a small break in any of those things results in a braid that is uneven.”¹

One aspect of *shigeuchi* that makes it strange to braiders is that most commonly it is braided with 9 elements. The majority of *marudai* braids use a number of *tama* that is divisible by four. Braids with an odd number of elements appear often in *takadai* braiding, but not everyone has access to a *takadai* and sufficient *tama* to experience the patterns and variations that are possible. Braids worked with *kute-uchi* loop-manipulation techniques can have an odd number of loops, but of course loop braids will always have an even number of elements, because each loop contributes two elements.

Makiko Tada believes that originally, *shigeuchi* braids were made with *kute-uchi* techniques. She writes, “Flat braids made with the *kute-uchi* method are not symmetrical, so they tend to twist a little. Then, in order to make longer braids, they were braided on a stand, and so they came to be braided on a *sankaku-dai*, *shigeuchi-dai*, or *taka-dai*. I think that they were made into an odd number of nine strands to prevent the twisting.”

Most students of *kumihimo* are familiar with the *takadai*, but little information about the history and use of the *sankaku-dai* or *shigeuchi-dai* has made it to North America in English. Some videos do exist on the Internet, and some braiders have studied their use in Japan, but this equipment is mostly unavailable outside of Japan.

¹ Thank you to Michael Hattori for translation from *Kumihimo: Nihon no Bi wo Kumu Dentô Kôgei*.

Most people want to braid this braid on the *marudai* that they already own, but the method most people use simply replicates the movements of a *takadai* or *sankaku-dai* on the *marudai*. My experiments have shown that it is possible to create a true *shigeuchi* braid (one that is identical to a *takadai* or *shigeuchidai* braid) on the *marudai*, using a method that is similar to other *marudai* braids.

Shigeuchi as a Loop-manipulation Braid

At first glance, the 5-loop flat *kute-uchi* braid made with the AB procedure² looks to be quite similar in structure to the 9-strand *marudai* braid. It is a flat single-layer braid with a twill structure and 4 ridges. It is only when you flip both braids over that you can see that front-back symmetry is different.

Using that procedure, to create the characteristic zig-zag pattern seen on many *sageo* cords, you must use two bi-color loops. Also, without the stand and *tama* to regulate tension, it can be difficult to create a braid with the steady and tight stitches seen from other methods. It is also difficult to maintain twist in the elements.

Masako Kinoshita also lists 7-loop and 13-loop versions of the *shigeuchi* braid from the Mano family record (Kinoshita, p. 326). These versions are made with a DC procedure³. Kinoshita notes that specimens of *shigeuchi gumi* found in the Imperial repository at Shosoin show strong indications (through both measures of braid firmness and the types of errors found in the braids) that they were made using *kute-uchi* techniques.

Shigeuchi on Sankaku-dai

The *sankaku-dai* is a smaller stand with a triangular (三角, *san kaku*, three corner) mirror and support. *Shigeuchi* is often plaited with significant twist in the elements, so the support of the *sankakudai* is padded with toweling to prevent the *tama* from spinning out the twist, in the same fashion as toweling is used on the *kakudai* and sometimes the *marudai*. The hole in the top of the *sankaku-dai* does not appear to have any function.



Figure 1: Sankaku-dai

I have seen pictures of several different braids being plaited on the *sankaku-dai*, but never any video. There always appears to be an odd number of strands warped onto large, heavy (240g) *tama*. To braid *shigeuchi* on the *sankaku-dai*, I warped the stand with 9 strands, 5 on the right and 4 on the left. Starting on the right, I lifted the two *tama* closer to me with my right hand, then reached between those lifted strands and the others to grasp the “top” strand with my left

2 L to R, outside straight; R to L, outside twist.

3 L to R, inside twist; R to L, inside straight.

hand. I used my left hand to transfer the strand to the left side of the *dai*, and set the stitch with my right hand. Then I repeated the lift, move, and set motions from left to right.

Shigeuchi on Shigeuchi-dai

The *shigeuchi-dai* resembles a smaller, simplified *takadai*. There are great variations in *shigeuchi-dai* design, particularly in the slope of the *dai* rails. None use the beater sword. Some use *koma*, but some do not. In size it usually resembles a traditional *karakumidai* or *ayatakedai*, with short legs for use while floor-seated and a top that is about as wide as a user's shoulders. From the name, this stand is specialized for only making *shigeuchi*.



Figure 2: Shigeuchidai

When braiding on the *shigeuchi-dai*, the braiding motions involve parting the four lower strands horizontally from below on the "sending" side and lowering the top strand vertically through the gap. Then, the hand used for parting can move the active *tama* over to the "receiving" side. The other hand is now free to apply twist and set the stitch. If the stand does not use *koma*, some readjustment of the strands may be necessary. With *koma*, the *koma* will need to be cycled as with the *takadai*.

Most braiders introduce twist in the active element just as it is being released. Most braiders appear to apply an S-twist when the strand is moving from right to left, and apply a Z-twist when the strand is moving from left to right. The stitch is then set by hand. With practice the twist is preserved, but it is quite difficult.

Shigeuchi on a Modified Takadai

Using a modified *takadai* as a *shigeuchidai* is a bit awkward, but it works reasonably well. I have a Rodrick Owen *takadai* that was made according to Aiko Sakai's "Aya-Taka-dai" design, and can be converted into an *ayatakedai*. I removed the outer *takadai* arms and their supports, and replaced the *takadai torii* bar and *torii* with those of the *ayatakedai* setup. You can either use *koma* or not, but I did not use *koma*.



Figure 3: Modified Takadai as Shigeuchidai

The difficulty on this setup is that the rounded edges on the arms are far from the *torii*. If you try to keep the point of braiding over the sword stick, the *tama* slide up towards the sword stick. If you extend the roller's leader cord to bring the point of braiding much closer to you, the strands no longer slide. The *tama* are pulling directly outward on the point of braiding. With the point of braiding under direct tension like this, you have to pay a lot of attention setting the stitches manually. In demonstration videos, you can see the *kumihimoshi* doing this. Using *koma* would keep the strands in the right places.

Shigeuchi on a Takadai

Makiko Tada includes two *takadai* patterns for *shigeuchi* in her **Comprehensive Treatise** (Tada 3, pp. 25–26). The first pattern is a 2/2 twill, and the second pattern is a 1/3 twill that creates longer stitches in the middle. The Japanese text notes the existence of the *shigeuchi-dai*, however the English translation does not. She does not mention using the beater sword or any twist in the elements.

Using an unmodified *takadai* to braid *shigeuchi* has its own difficulties. There are essentially four strands on each side, with one strand in transit. Since standard *shigeuchi-gumi* is a 2/2 twill braid, the shed is two up and two down, and two *tama* (even 100g *tama*) are not enough weight to support the *hera* sword. You can hold the sword manually, and adjust the beating force to compensate for the small number of *tama*, but it is much simpler to imitate the *shigeuchidai* method and set the stitches manually.

To braid *shigeuchi* on the *takadai*, I parted the strands manually from below as I did on the *shigeuchidai*, and lowered the active *tama* through the gap. With the *koma* to hold the strands in place, you do not have to worry about the strands sliding, but you do move the *koma* as usual for the *takadai*. Tada recommends pushing two strands down, then passing the top strand under the first two and over the second two. This inverts the braid, but creates the same structure.

Seventeen Tama on the Marudai

During a workshop with Rodrick Owen, I asked about *marudai* braids that would be useful for Japanese armor. Famously, Japanese armor is made by lacing together a large number of small plates. Historically (that is, before 1600 CE), these braids would have been created using either *kute-uchi* hand loop braiding or *takadai* braiding. Most examples we have today utilize flat braids with a twill structure.

After the workshop, Rodrick gave me the pattern for what he called the "Taka on Maru" braid. As I requested, the final braid is a flat, eight-ridge, twill braid. Once complete, the 17-strand Taka on Maru braid has a 3D texture that a 17-strand twill *takadai* braid will not. The braid can be flattened and ironed if this texture is not desired.

Shigeuchi on the Marudai

Makiko has developed methods for working the 9-strand *shigeuchi* on the *marudai*. Her methods sought to replicate the *takadai* method on the *marudai*, and involve lifting pairs of strands to create the twill structure. It is similar to the *sankaku-dai* method.

When I attempted Rodrick's Taka-on-maru braid for the first time, I recognized the slide-hop motions of the 8-tama "kaku gumi" square braid [Carey CK, 8H p. 41]. This enabled me to develop my 9-strand *shigeuchi* method for the *marudai*.

My method uses a method that is more in the traditional style of *marudai* braiding, and involves simple sliding and hopping movements. The resulting braids of both methods are identical, but according to Makiko, "I think your braiding method makes more sense!"

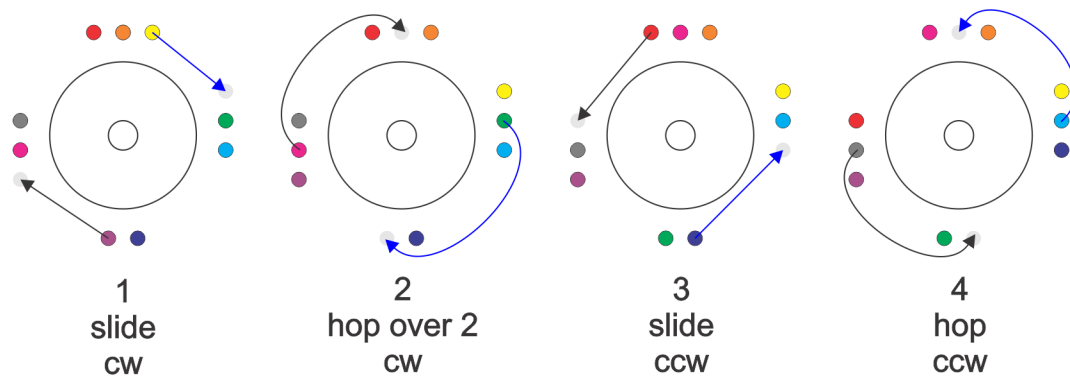


Figure 4: Elliott Evans' *Shigeuchi Gumi 9*

This version for the *marudai* uses the same basic movements as the 8-tama *kaku gumi*, but the addition of a ninth element opens up the braid into a heavy flat band. Working this braid with 7 strands in one color and 2 contrasting strands (in positions 2 & 3) produces the characteristic zig-zag pattern that you often see in *sageo*. It is difficult to add twist when braiding on a *marudai*. Often, I do without twist, even though the difference in quality is noticeable.

You can compare this braid with the 8-tama flat *marudai* braid [Carey CK, 8G p. 40], which is sometimes called *shigeuchi*. The 8G braid is usually wider than this 9-strand, but the 8G braid does not have a twill structure, so it is not a "true" *shigeuchi-gumi*.

About the Author:

Elliott C. Evans is a technical writer & trainer in Pittsburgh PA, USA. He has been studying kumihimo since 2008. In the Society for Creative Anachronism, he is known as Ishiyama Gen'tarou Yori'ie. At [Braids 2025](#), he will be teaching a class on three braids that use an odd number of tama. Follow Elliott's adventures on his web site at "ee0r.com/blog".

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