

Polishing and Conservation of the Japanese Sword (and the ever-popular Hadōri vs. Sashikomi controversy) - A Personal View -

by

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A topic that frequently comes up among collectors of Nihontō is polishing, and especially the difference between the finishes Sashikomi and Hadōri (also called Kanahada [iron oxide] or Keshō [cosmetic]). There are often very emotional remarks promoting Sashikomi as the only "true" way of polishing.

Quite a few articles and books in English are now available that explain the different steps and tools of polishing, but emphasis is almost always on Hadōri. Some collectors even believe that Sashikomi just means omitting the final Hazuya stone. However, there are actually distinctively different techniques used in obtaining either finish.

A polish consists of two stages: **Shitaji** (lower polish), and **Shiage** (final polish); Shitaji is basically the same for all swords, and the stones that are used are Bisui → Kaisei → Chūnagura → Komanagura → Hato → Jito. In Shiage the following work takes place: Tsuya (Hazuya and Jizuya) → Nugui → Hazuya → Migaki → Narume. Again, Migaki (Shitamigaki and Uemigaki, preliminary and final burnishing of Mune and Shinogiji, and Sugikire and Narume, defining the Yokote and polishing the Kissaki) are more or less the same for both types of finishes.

Laying the groundwork for either Hadōri or Sashikomi can begin as early as the Jito stage during Shitaji, depending on the individual polisher. The approach of Tsuya, too, might be slightly different, but the choice of Nugui is the most important factor. While Kanahada for Hadōri uniformly blackens the Hira, Jiseki for Sashikomi darkens only the Jihada, while the Yakiba remains more or less white.

In the following Hazuya application, only the Yakiba proper will be polished for Sashikomi, especially to remove Nugui marks, following the Habuchi as closely as possible. Hazuya for Hadōri takes much longer, the Yakiba is thoroughly whitened, extending the whitening as much into the Ji as necessary. Some polishers apply a mixture of Uchiko and water to the Yakiba, simulating with this white "paste" the Hadōri to check the contrast - more Nugui might be needed - and to get a feeling of the "flow" of the Hadōri.

Sashikomi works fine with a very tight Nioiguchi / Habuchi, but doesn't help to make the secondary Nie and Nioi show and, in the worst case, even obscures them. Hadōri can enhance or subdue the contrast between Hada and Hamon, and gives the Hataraki more brilliance.

I would like to comment at this point that an average sword takes about 100 to 120 hours of concentrated work by a skilled polisher; this should help to answer the often-asked question why a Togishi charges what he does.

Since making visible Nie and Nioi and the Hataraki they form are the main reason for doing the final stages of the polish, I think a short explanation might be helpful:

The martensite particles that form the Habuchi are called Nioi if they are small, misty and diffuse, and Nie if they are big enough to form individual, discernible, shiny spots. Actually every Habuchi consists of Nioi, and the occurrence of Nie depends on the carbon content of the steel as well as the temperature to which the blade is heated prior to Yakiire.

If the Hamon only - or mostly - has Nioi, it is called Nioi-deki, and if the Nie particles cover up most of the Nioi it's called Nie-deki. Nie can form clusters, large Ara-nie and small Ko-nie etc. Most Hataraki (like Kinsuji, Chikei and Inazuma) are certain patterns of Nie.

Nie appeared already on blades of the Jōkotō period, but I don't know if by incident or with deliberation. Be that as it may, I think we can safely assume that in the Kotō period smiths were able to produce controlled Nie, and that it was a matter of preference, tradition, fashion and - to a lesser extent - material whether they did or not.

During the mid 10th Century the basis for the traditional sword polishing we see today was developed (except for the Kaisei stone, a rather recent addition). Honami Kōtoku introduced burnishing around 1600 AD. However, a polish beyond the Shitaji stage only brings out the artistic qualities and doesn't contribute much to the "cutting ability" of the sword, so most swords never saw the Shiage stages, which meant additional work, and therefore additional time and cost. Only during the peaceful Edo period became this kind of refined polish more or less the standard.

In the Momoyama period the Honami family was retained by the Tokugawa as polishers and appraisers, and from then on they started to monopolize this part of the sword market. During the Edo period they had eleven branches, and everybody who could afford it had their swords polished by them.

A common misconception is that all swords polished until the early Meiji period were done in Sashikomi, and that Hadōri was developed after the electric light bulb was introduced to Japan. This is only partially true.

Although Sashikomi is indeed the earlier form of (final) polishing, Hadōri was used at least from the mid-Edo period on according to old records, and possibly even earlier. However, the care that is exercised in doing Hadōri as we know it now, and the level of whitening of the Hamon / Hataraki, as well as the degree of darkening of the Jihada through Nugui, is something that came with the advent of the light bulb. Electricity didn't only enable the polisher to work with a constant, bright source of light, but makes it easier to see the various Hataraki clearly, and the Honami family responded to the strong call of connoisseurs to refine their techniques in accordance with the improved conditions of appreciating swords.

I dare to say that in 9 out of 10 swords Hadōri will help to appreciate the finer details of the sword. This is also the point where the Togishi changes from a mere craftsman to an artist who "interprets" a certain sword, much like a conductor of classical music. Why, then, prefer some collectors, especially non-Japanese, Sashikomi? This is a very complex issue, and, IMO, has a variety of reasons.

One obvious reason is simply taste – some like the appearance of Sashikomi better than Hadōri. The outline of the Hamon is more easily visible, even from a distance. One is immediately able to

tell that the Hamon is Chōji, not, for instance, Notare as the white, misty Hadōri might suggest at first glance.

And as I mentioned earlier, Hadōri is also called Keshō, cosmetic. Some argue that the "natural beauty" is to be preferred to "make-up". Women use make-up to show the appealing features of their face in the best light, while covering up the less desirable ones. The same is true for swords. Some like a woman's face without make-up the best, some are attracted to defined, red lips.

I even heard that Sashikomi is better because it preceded Hadōri, and therefore is the most traditional method – but then we should only collect swords "in the white" (Shiratogi), i.e. not going beyond the Komanagura stone, because that's even *more* traditional. We should not forget that certain methods were developed to help us appreciate the artistic features of the sword, and it would be foolish to disregard them as less time-honored.

Another reason for believing Sashikomi is more traditional is actually a misunderstanding: many swords outside Japan "lost" their polish and may appear as if done in Sashikomi. A polish lasts only so long, and after years and years of using Uchiko - which is powdered polishing stone - Hadōri tends to fade.

I'm not sure how much different views of what is considered beautiful and what not divides the Japanese and non-Japanese collectors in regard to polishes and Nihontō in general. A Westerner at a Geisha party will probably find that the ladies' white colored faces make them look artificial, and is surprised to learn that his Japanese counterpart finds the line of the neck much more erotic than the décolleté (which is the reason why women's Kimono are tightly closed at the throat, but stand stiffly away from the back of the neck). Although I think that cultural differences are too often over-emphasized, it would be naive to assume that people all over the world look at the same thing the same way.

And of course there are master polishers and mediocre ones. Lacking the proper technique and taste, a Togishi can do more harm than good with his polish. This is true for both Sashikomi and Hadōri, but the latter is more prone to artistic misinterpretation, and can ruin the entire appearance, while with Sashikomi the manual skill is the most important factor.

I hope I don't make too many enemies when I say that - at least in my experience - the "Sashikomi vs. Hadōri" battle is fought most fiercely among inexperienced collectors, or those with no or little exposure to fine swords in perfect polish - or those who focus on the romantic aspects of sword collecting, who resist actually studying the sword as an art object, and instead discuss matters perceived as being merely of personal taste.

The differences between the two methods are not as clear-cut as my example of a freshly washed, rosy visage vs. a heavily caked, make-up covered face might have implied. Taste comes into play when we decide if a Sue-Tegai blade with pencil-thin Suguba Nioguchi should be done in Sashikomi or Hadōri, but debating the same matter in regard to a Hasebe Kunishige is insane. Sorry, I thought long and hard about a less offensive adjective, but there is none in this case.

Seasoned collectors will not only appreciate a good polish when contemplating a new acquisition, they even might have a good idea by **whom** it was polished. For example, an extremely white, "shiny" Hadōri will point to the Nagayama school, and a bold, flowing Hadōri that perfectly balances the darkened Jihada in color might be done by Honami Nisshū. There are quite a few

accomplished Togishi that left (and continue leaving) their mark in the polishing world. Being able to see the differences in polishes - and the overall quality of the sword itself that "lays beneath" the polish - is more important than by whom, or in what tradition, it was made. There always will be fads, trends, and vogues, but true quality is everlasting.

Sashikomi could never do the bright, Milky Way like Suguba of a Hizen Tadayoshi blade justice. It would make a very active Sōshū Midareba look too ragged, and ignores Hataraki in the Jihada. Hadōri is not a polish that makes the beauty of the blade accessible at first glance – one has to look "into" the blade in order to see all its activities. It takes more time to discover all its features, but ultimately makes visible things that Sashikomi isn't able to bring out. If the polisher is an expert, he'll lead the way for you in appreciating the best the blade has to offer – if you're willing to invest a little time and an open mind. I'm sure I said the following already a couple of times somewhere else: looking at WWII Guntō and Kazuuchimono / Shiiremono ("mass produced" swords made during times of high demand) doesn't help to gain an understanding of the *artistic* nature of Nihontō, eventually it'll even ruin your eyes.

One can only learn *art* from *art swords*. Looking at a paint-by-numbers "painting" of a bugling elk doesn't make one an art expert, studying up close works by the masters will. All those important swords that have a Hadōri polish do so for a very simple reason: it reveals their beauty to their best advantage. It has nothing to do with fashion, or even an ominous conspiracy by the NBTHK.

If a blade is in a bad or old polish, flaws might not be visible. It takes a *much* trained eye to judge an unpolished blade, and even then it might hold some unpleasant surprises after being put to the stones. Call me a coward, but I don't trust myself enough to buy a blade where I can't see the Hada and Hamon clearly enough. I yet have to see that rusted "sleeper" at a blade show that turns out to be a national treasure. Forget those "study pieces": if it's worth being bought, it should be worth being properly polished and preserved. What's there to be "studied" – Kizu and rust in different stages of eating up the blade? It should at least have enough of a polish left in order to see its artistic possibilities. If not, get an expert's opinion. And don't "buy a signature" when it's not confirmed by the blade itself.

And after you bought the sword, give it to a **qualified** polisher. Ask around, look at examples of polishes, talk to the Togishi, ask for references and decide for yourself if you can trust him, because that's an important factor if you're about to part with a substantial amount of money for his services. And *please* don't tell him how to do his work! If you see him wrinkling his brow when you say "this Sudareba should look great in Sashikomi", take it as a warning sign. Depending on the personality (and sometimes the current financial situation) of the individual Togishi, he might comply with your wishes. More often than not he won't accept the work.

Let **him** decide how to polish – after all, he studied this craft and knows what he's doing. This has nothing to do with blind trust, but with relying on his taste and especially his experience. Believe me, there are a gazillion of fine points we – who don't spend countless hours bend over the stones in an awkward body position, handling swords of different periods and makers on a daily basis – simply don't see.

I recently had a Wakizashi polished, and when I picked it up at the polisher's workshop, I was very pleasantly surprised how "different" (i.e. beautiful) it looked. He had done a marvelous job in bringing out the clusters of large, shiny Nie. I first didn't understand when he said that he was

quite happy with how his re-defining the lines of the blade had turned out. And then it became obvious: the Wakizashi didn't only look much, much better than before because I was able to see the Hamon and Hataraki clearly now, but because he had "adjusted" the taper and Shinogi to get it back to its original, intended shape after a couple of bad polishes it had received in its past. This had done as much – if not more – for the "new improved look" of the sword as had his tasteful Hadōri polish. The lines were crisp again, and the Yokote was placed where it belonged, and not just somewhere in the tip section.

Few people are better qualified to catch the essence of a blade than an expert polisher. And that's what it's all about: to do whatever it takes to reveal to us the splendor and beauty the smith embedded into the sword a couple of centuries ago (or only yesterday). Sashikomi – sure, why not? But only if it suits the sword, not as a matter of principle.

Once the sword leaves the polisher's hands, it's up to us, the collectors, to preserve it properly. One of the most basic - and most pleasurable - tasks is to "clean" it on a regular basis. Old oil is removed, and a new coat of oil is applied. After all, steel is a ferrous metal, and tends to rust if left alone under less than perfect environmental conditions. Not too many of us are able to keep a blade at 21° Centigrade and below 55% RH as museums can do. And even then it can't be left unattended for years.

There are times when (high grade) Uchiko should be used – I do it once in a while, for instance when preparing a sword for Kantei, or when drawing an Oshigata – but one should be aware of the fact that it is made from polishing stone sediments that gather at the bottom of the polisher's water container. Using an Uchiko is like giving the blade a mild polish. Doing that for an extended period of time means that the sword has probably to be polished again, due to this "unqualified" polishing.

In the old times there was no other way of removing the thickened, sticky or dried oil, but today there is: if you talk to a Japanese Togishi, he'll recommend dehydrated alcohol. Museums in Japan use it, and many dealers, too. It's the gentlest way of removing old oil without harming the polish. Here in Japan it's called “Musui Ethanol 無水エタノール”, “waterless ethanol”, and is 99.5% pure alcohol. It has a relatively short shelf life (3 or so years), but on the other hand isn't very expensive. I once run out of it, and tried the alcohol based liquid my wife uses for removing price stickers. Wonderful blue streaks, changing to purple depending on how you turned the sword. A light coat of oil got rid of that color-fest, but my heart stopped for a couple of seconds.

Well, since I'm spilling all the secrets anyhow: for cleaning, the discriminating Nihontō collector uses simple tissue paper! However, it should be a nice, clean, soft one like Kleenex, and not the recycled, rough, generic type. For oiling the soft, flannel-like cloth that is used for cleaning spectacles or photo lenses works great, and isn't as messy as tissue when soaked.

There are some types of shop towels that work equally well, or even better than tissues, for cleaning the blade. In the US there is one blue type, and the NBTHK uses a similar material that's white. But it only makes sense to buy this material when taking care of a great number of swords on a regular basis; for the common garden variety collector are tissues sufficient. And you have them around anyhow. The best material is probably Microdear[®] lens cleaning cloth. Although it's quite expensive, it's washable and can be used for a long time until it wears out.

Please note that ***pure*** is the keyword here. Pure alcohol; unscented, plain, soft tissues; for oiling I even use the clear mineral oil Tōken Shibata and Mr. Fujishiro sells.

Traditionally vegetable oil was used, usually camellia oil (Tsubaki-Abura 椿油) with a few drops of clove oil (Chōji-Abura 丁子油). It has a yellowish color, and strongly smells of cloves. It absorbs moisture, but gums up easily when dried. It's also mildly aggressive (which is good for cleaning swords in a less-than-perfect state of preservation), but quite messy when it soaks into the Saya.

Mineral oil (Kōbutsuyu 鉱物油) was used from the Meiji era on when mass-production of sword for the Japanese army started - it's cheaper and easily obtainable. It's clear, and thinner than vegetable oil, and doesn't deteriorate as fast; one also needs less of it compared to Chōji-Abura (as Chōji scented oil is called for short).



I know, all of the above is not traditional, but it might if all that stuff would have been available "back then". Tradition is a nice thing. I like the smell of Chōji oil, and Uchiko'ing a sword can be turned into a Zen-like exercise. But if there are better, more modern methods, why not use them? Just forget the Uchiko (at least for "regular" cleaning) as most experienced Nihontō collectors do - it slowly scratches up your blade.

Some years ago the cousin of my wife brought over a Wakizashi that has been in the family since their ancestors were retainers of the Ikeda-Han in Okayama. It is signed "Bishū Osafune Morimitsu Saku" and dated Ōei

8. I have my doubts about the signature, but anyhow, a very well made sword with a graceful Sugata, Bohi and Soebi, Chōji-Gunome-midare Hamon. But that's about all I could see in the blade. The Hada was gone; well, it hadn't disappeared, it just wasn't much visible anymore. That's what the constant use of Uchiko can do to a sword.

In all fairness: the polish was pre-WWII. But since then it had been taken out only once in every blue moon, being severely beaten with the Uchiko ball, and re-oiled. Needless to say, the Keshō was completely gone. The last time it was oiled was when the present owner got it from his / my wife's grandfather after graduating from law school in the seventies.

In any case, the alcohol I used to clean it didn't only get rid of the dried oil, the tissue had turned brownish-red as well: there was very light rust, and the alcohol had removed that (at least to the

point where I couldn't see any rust with my naked eyes anymore). And lo and behold, the Utsuri I missed before all of a sudden jumped right into my face!

And on a side note: the first 6 months or so following a polish, there are still small amounts of water trapped in the blade. It's very important to oil the blade as often as possible (not meaning on a daily basis) during that critical period of time. Just imagine how much one can save on Uchiko and Nuguigami by simply using alcohol and tissues.

In conclusion: alcohol isn't only a beautiful thing when certain fermented drinks contain it, it sometimes even can do small wonders on swords. Which reminds me of the bottle of Junmai-Daiginjō Saké my wife probably thinks I've forgotten about. Well, after filling quite a few pages with my ramblings, I think I now deserve a sip or two - if not for content, then at least for diligence. Kampai!

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