

Sugata.

Introduction:

In June 2020 The Token Society of Great Britain held our second virtual meeting. On this occasion the central presentation discussed the shape of the sword and what elements one should examine and what the shape can tell you.

The following paper was written to support the initial presentation.

When examining a sword the features one should study and the order in which you should proceed are:

Sugata-shape

Hada- grain structure

Hamon- hardened edge

Nakago-tang.

Sugata:- The overall shape of the swords

Very early in the study of swords students will realise there is considerable diversity in shape and form in examples made throughout the history of sword manufacture. In this paper I intend to focus on the two most commonly seen forms, namely:

Shinogi-Zukuri- a blade with a ridge line running the length of the blade on both sides and parallel to the edge. This is by far the most commonly seen form and exists in both daito and wakazashi.



Hira-Zukuri- a blade with flat sides, most typical seen in tanto and Ko-wakazashi.



As well as looking at different aspects of shape the following explores a number of commonly seen quotations relating to shape. These are:

Look at the shape before you look at anything else

(Dr. Walter Compton)

While a good shape doesn't guarantee a good sword a good sword never has a bad shape

(Me, but I am sure not original)

The shape tells you the age of a sword

(various)

Look at the shape before looking at anything else:

Walter Compton in a paper published in the "100 masterpieces from the Compton Collection" wrote a very detailed article discussing the importance of studying shape, and doing this before looking at anything else. He states that "*only when you are able to describe the shape in detail with your eyes closed should you move on to other aspects of the blades construction*". So what are the elements the observer needs to identify?

Sori- The curvature of the blade

Shinogi- the ridge line

Mune- the back edge of the blade

Kissaki- The point

Motohaba and sakihaba- the width of the blade at the junction of nakago and blade and the junction of the monouchi and kissaki.

Kasane-thickness

A good sword never has a bad shape:



There are two aspects to this point. George Cameron Stone in his definitive work, "A glossary of Arms and Armour....", describes the Japanese sword as "*The nearest thing to perfection made by human hand*" Ian Bottomley in the Royal Armouries video "Bamboo and Steel" describes it as "*the finest cutting weapon ever made*". The function of the sword is to cut. If it does not fulfil that function it is a bad sword. In a classic example of form following function the shape of the Japanese sword has evolved to enable it to cut in the most efficient way possible. Any variation in shape that reduces that efficiency means it compromises that primary purpose which therefore makes it a bad sword.

The second aspect is the aesthetic. The shape acts as a perimeter or frame to all the other features we look at within a sword. It is important that it compliments and enhances those features and that it creates a unity between them. If the shape is poor it immediately compromises the overall appearance of the blade and greatly detracts from the experience.

A slight aside but in a book of interviews with modern Japanese swordsmiths a polisher described how the shape of the sword effected the ease of polishing. He mentioned that polishing older blades from the koto period was generally easier because the lines were more flowing. He felt that many modern smiths paid less attention to shape than their predecessors and as a result the shape was poorer and more difficult to polish.

The Shape tells you the age of the sword:



No it doesn't!

It is true that an ubu blade can give an indication of age. At best it can tell you how young a blade is not how old. To explain this further: As fighting styles changed over time so did the shape of blades. An example we will discuss later is a Kanbun Shinto sugata which came in to existence in the Kanbun era, the second half of the 17th century. If you see a blade with this classic form then it can only have been made during or after the Kanbun period. However since the earliest days of sword manufacture smiths have copied earlier work. The blade illustrated above appears at first sight to be a work of the Heian period. In fact it was made some two hundred years later and is a copy of the earlier style.

Another factor is that very many probably the great majority of Koto blades are suriage (shortened) so you are not seeing the original sugata. You therefore have to try and imagine or mentally reconstruct the original shape to try and visualise what it may have looked like in its unaltered form. The shape of a suriage blade can tell you a great deal but not how old the sword is.

Looking at the Shape:

Sori: There are four types of sori. Koshi-zori, Tori-zori, Saki-zori and Uchi-zori

Koshi- Zori:



The deepest part of the curvature is nearer the nakago than the kissaki. This is often described as feature of older Bizen blades and in the past was even described as "Bizen sori" however it is a feature common in many older blades of most schools.

Tori-Zori



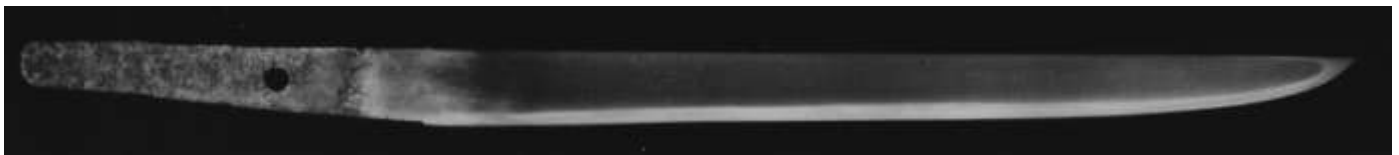
Named after the curving cross section of a Tori gate tori-zori is by far the most commonly seen form. The deepest curvature is in the centre of the blade crating an even bow curve. This is seen in most Shinto and Shin-shinto blades and in suriage koto blades.

Saki-Zori:

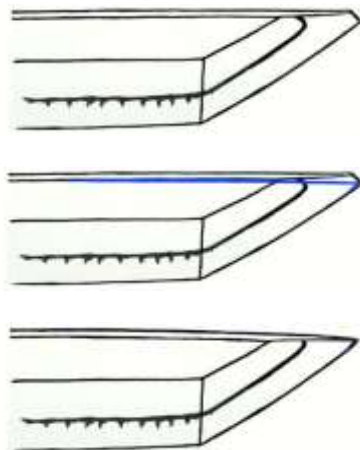


Interestingly blades are described as being Koshi-zori or Tori-Zori but “having” saki-zori. Saki-zori describes an increase in sori which occurs in the top section of the blade. As far as I am aware it does not exist in isolation, it is a kick or increase in curvature in the Monouchi. It is something that is seen in koto blades of the late Nambokucho period and later. The example I showed earlier of the Oei blade trying to be Heian exhibits saki-zori. If it were a Heian blade it would not have this feature so the presence of saki –zori is one of the indicators that this is a later work.

Uchi-Zori:



Uchi-Zori describes a negative curve where the back edge of the blade curves down towards the ha. This is most commonly seen on old tanto. In the past it was rather unkindly referred to as “Bizen droop” but again it is far from a unique Bizen feature. The blade above is by the founder of the Soshu tradition Shintogo Kunimitsu. One can also see uchi-zori in older koto long swords. It is a feature of earlier works that often the blade in the monouchi straightens or even drops slightly. There has been considerable debate about how this feature occurs. One suggestion is that it is the result of the shape being modified to correct damage to the kissaki (see illustration below). This seems to be a very plausible explanation but personally I do not believe it is the complete answer. Many blades which appear to have very healthy and undamaged kissaki still exhibit a degree of uchi-zori.



Fumbari:

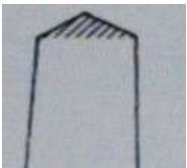


Before moving to the next feature there is one other aspect of curvature I would like to cover, Fumbari. This feature is often misunderstood. It describes a rapid decrease in width in the first few centimetres of the blade. Again it is a feature often seen in ubu Koto work. However if a blade is shortened the fumbari will be removed. Therefore the presence of fumbari is a good initial indicator that a blade may be ubu. It is often very subtle and one needs to pay particular attention to the shape near the hamachi to identify it.

Mune:

The Mune is the back edge of the sword. There are three common forms lori-mune, Mitsu-mune and Maru-mune

lori-mune



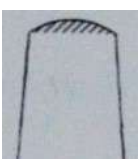
lori translates as “roof” and the back edge has this triangulated form. It is by far the most commonly seen mune. When examining it one should try and assess the steepness of the gradient as this can be an indicator a particular school or tradition.

Mitsu-Mune



Three side mune. This feature is often seen on high quality tanto, in works by such notable smiths as Kunimitsu and Awataguchi Yoshimitsu, also on long swords in the Soshu tradition by Sadamune and Yukimitsu. It can often offer an elegant dimension to the overall shape and certainly when seen on a blade it can be a good indicator that the blade is worth closer examination.

Maru-mune



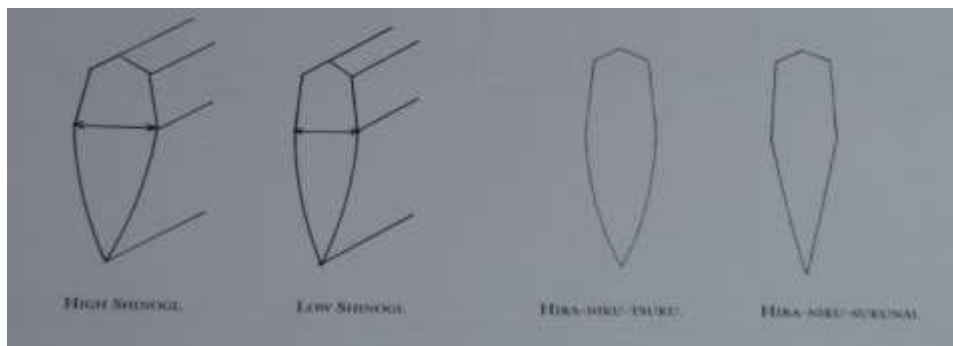
Maru-mune has a curved top edge. I have generally associated this feature with lower quality blades. However to prove there are always exceptions some two years ago I had the opportunity to examine

one of the finest Rai Kunimitsu swords I have ever seen at the Samurai Art Museum in Berlin. It was outstanding and I could well understand how it had achieved its Tokubetsu-Juyo ranking. It was maru-mune. The only example he ever made. No one knows or ever will know why he chose to finish it this way but it proves that such a mune can be found on the very best blades on occasion.

Shinogi-Zukuri:

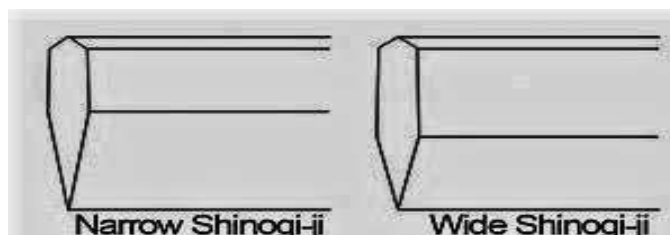
As mentioned previously the shinogi is the ridge line which runs the length of the blade between the mune and ha. It is by far the most commonly seen form of Japanese blade seen in tachi, katana and wakazashi and occasionally on tanto although these are often the result of longer blades being shortened.

The Shinogi may be described as high or low



This is referring to the width of the blade at the shinogi. A high shinogi is wider and therefore creates a more diamond shaped cross section. In a blade with a low shinogi the shinogi-ji does not flare out between the mune and shinogi leaving the sides almost parallel. This is a very important feature to look for. It can be a good indicator of tradition or school. For example All 5 schools of the Yamato tradition have this feature in common. It is also seen in Shinto works by such smiths as Kotetsu.

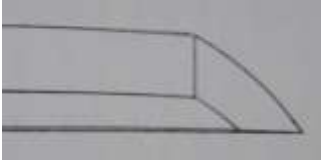
Another feature closely related to the shinogi is the presence of “Hira- niku” or meat. A blade with strong hira-niku has a convex or clam shape between shinogi and ha, a blade with weak hira-niku has flatter sides. Both are said to effect the cutting ability of the sword. Again strong Hira-niku is often described in Yamato blades weaker hira-niku a recognised feature of the Mino smiths Kanesada and Kanemoto. Some sources say a blade with strong hira-niku is effective against armour and also cutting flesh. Kanemoto blades have a reputation for being extremely sharp and may have been more effective in cutting in duels when armour was less likely to be used. I will leave it to those with far greater knowledge of tameshigiri to expand on this at another time.



Something else to look at is the width of the shinogi-ji (the image is an extreme example) is the shinogi-ji nearer the mune or the centre of the blade.

Kissaki:-

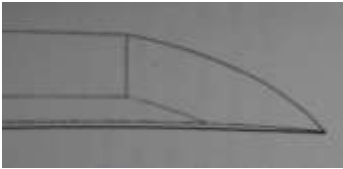
The three main forms of kissaki are:



Ko-Kissaki small kissaki, seen most often on Koto blades. In the mid Kamakura these were made slightly shorter to form ikubi or “boars neck” kissaki.



Chu-Kissaki or medium kissaki by far the most commonly seen form



O-Kissaki or large kissaki, most often associated with large blades of the Nambokucho period and later Shin-shinto copies.

The designation of kissaki is based on the ratio of height at the yokote to the length of kissaki. Ranging from 1 to 1.5 in ko-kissaki to over 1 to 2.5+ on O-kissaki but these ratios are approximate and the description is based as much on perception when viewed as part of the blade as a whole.

Changes in sugata over time.

For the second half of this article I would like to briefly discuss the evolution and changes which took place between the Heian and late Edo periods

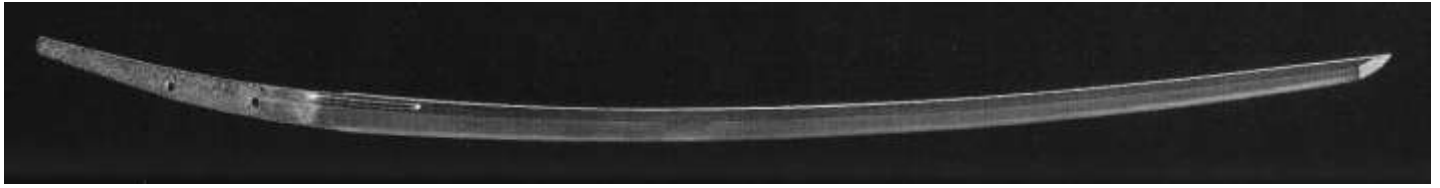
Heian Period 792-1185

Blades were generally Slender Shinogi-zukuri, iori mune, Koshi-Zori Ko-kissaki. There were not great differences in sugata between early schools with Yamashiro, Bizen and Hokki blades all exhibiting common features.



A ko-Bizen blade

Early Kamakura period 1185-1220



Tachi Awataguchi Kunitomo

The blade exhibits a Slender Shinogi-zukuri, iori mune, Koshi-Zori Ko-kissaki. There is little difference from the earlier work although by the mid Kamakura period the kissaki became larger and more boars neck in shape.

There are very few if any tanto extant from these earlier periods. It may be that they were regarded very much as utility items and therefore have not survived.

Mid to Late Kamakura 1250-1334



By the end of the Kamakura period blades were increasing in size. The blade illustrated, which is attributed to the Chu-Aoe School of the late Kamakura is O-suriage. When ubu this was a substantial work with a Nagasa close to 80cm. It is also 7mm thick.

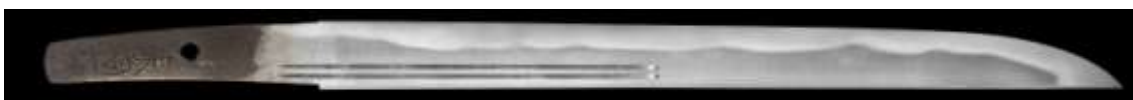


By the mid Kamakura tanto were becoming increasingly important. Perhaps the golden age of tanto manufacture with such smiths as Shintogo Kunimitsu, Awataguchi Yoshimitsu, Yukimitsu and the maker of this blade Rai Kunitoshi making exceptional pieces. They were relatively small, slim with uchi-zori and combined a very conservative hada and hamon with a beautifully understated form.

Nambokucho 1334-1396



Blades became longer wider and thinner with O-kissaki. Once again this blade is O-suriage and when Ubu would have been a substantial weapon



Tanto became longer, wider and started to introduce sori. This blade is by Rai Kunitsugu the son of Kunitoshi.

Oei Period 1394-1428



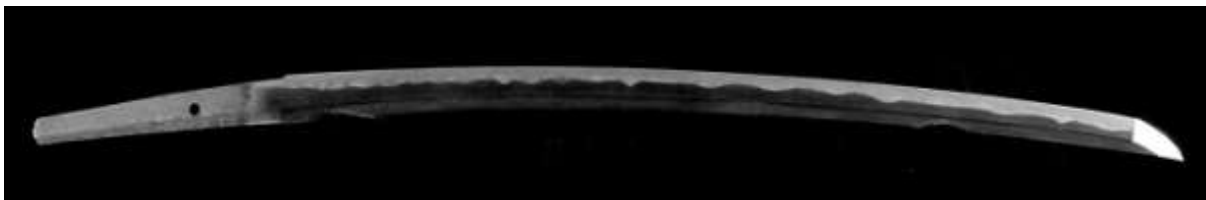
In the Oei period the Bakufu wanted to move away from the excesses of the previous period. This was reflected in Swords of The Oei Bizen School as they tried to reproduce the style of the early Kamakura era. The blade is shinogi-zukuri, iori mune with a ko-kissaki. It exhibits fumbari which confirms it is ubu or very slightly machi-okuri. The blade also exhibits slight saki-zori and is relatively thick. Both of these factors place it in the Oei period rather than earlier. This is confirmed by the niiji mei to Yasumitsu one of the leading smiths of the Oei Bizen School.

Post Oei Muromachi 1428-1573



At the end of the Nambokucho there was a trend away from the excessive size of the previous years. Smiths reverted back to an earlier sugata of the Kamakura period. There was more fighting on foot rather than from Horseback therefore shorter blades were required. High demand and mass production resulted in many poorer quality blades being made and many skills lost.

Momoyama Period 1574-1600



Smiths such as Hizen Munetsugu and Daido tried to reproduce styles of the Gokaden and regain some of the skills lost during the Nambokucho. Hideyoshi was known to be a great lover of Soshu work so many smiths used this school as a pattern for their own work. Wakazashi were becoming more established as the companion sword to the katana. Therefore they are seen in great numbers while tanto production declines.

Keicho Shinto 1596-1615

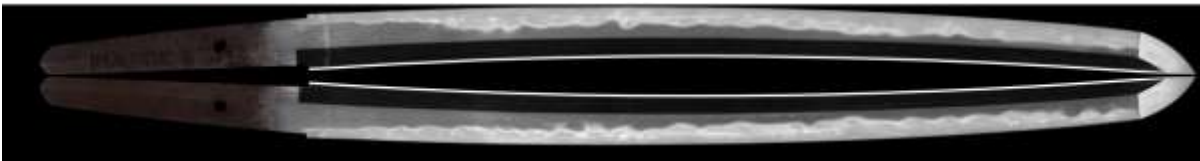


Many longer koto blades were shortened to adapt to fighting on foot. New swords emulated shortened koto blades. Blades had deep tori sori and tended to be thicker than earlier work



Wakazashi continued to be popular and followed the form of the time.

Kanbun Shinto 1661-1673



Swords were Adapted to a new dueling style. Blades had less sori and marked taper towards the kissaki. This shape was believed to facilitate a faster and more efficient draw and slash with a sword which could be a major factor in such combat.

In addition the increasingly wealthy merchant classes created a demand for wakazashi. By law they were prohibited from carrying katana. As a result we see far more wakazashi being produced and these often were more flamboyant in appearance (exuberant and complex hamon) and had very expensive and showy koshirae.

Later Edo period 1795-1868



As we reach the end of the Edo period Shin-Shinto Smiths rebelled against what they saw as the excesses of the time. They tried to revive the grander shape of Nambokucho blades. They also tried to recreate the very fine hada of Osafune Bizen and Yamashiro work from the Kamakura period. Tanto became more popular. There were some very good blades made during this time with smiths showing exceptional skill. However the raw material available to them proved to be a limitation and prevented them from fully realising their ambition to recreate Kamakura quality blades.

Conclusion:

In conclusion I would like to confirm the following points:

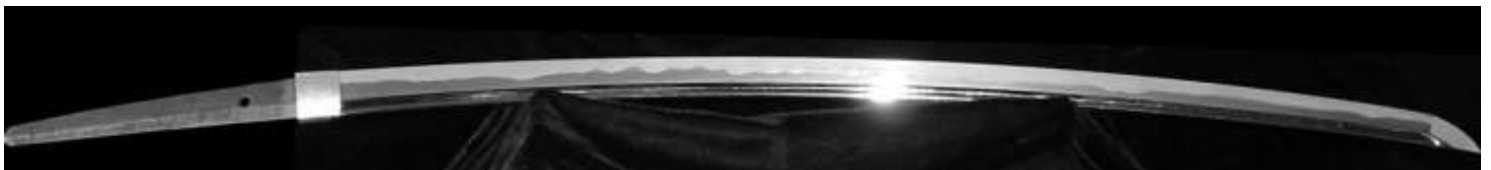
1. Look at the shape of a blade before anything else.
2. A good sword will never have a bad shape



3. The shape of an Ubu sword can give an indication of age and sometimes tradition
4. Smiths of all periods produced copies of earlier styles.



5. Changes in shape did not happen overnight, they evolved, often over decades



6. You can learn a great deal from different features within the sugata but differences can be subtle and need close examination to accurately identify specific features.

Thanks

In putting this article together I have used a number of sources for images to illustrate particular points I would like to thank the following people who have generously allowed me to use images to complete this story:

- | | |
|-----------------------|-----------------|
| Mr. Darcy Brockbank | Yuhindo.com |
| Mr. Andy Quirt | Nihonto.us |
| Mr. Markus Sesko. | Markussesko.com |
| Mr. Fred Weisberg | Nihonto.com |
| Mr. Tsuruta Kazushige | aoijapan.com |

The Kashima Sisters: ksky.ne.jp

Paul Bowman

July 2020

