

## **EARLY SOFT METAL FITTINGS**

This article is an attempt to illustrate the historic development, technical similarities as well as key differences between the major pre-Edo groups of soft-metal workers – with the disclaimer that there will always be exceptions to any attempt at categorization.

Soft metal fittings dating to pre-Momoyama times are relatively common, but poorly understood and generally under-appreciated – especially when one takes the time to reflect on the often high artistic quality and level of craftsmanship required to produce them. Unlike iron fittings dating to the same periods, soft metal fittings tend to be very well preserved because the alloys as well as raw materials used in their manufacture tend not to corrode.

Three broad groups of fittings need to be addressed: Kokinko, Tachi kanagu-shi and Kagami-shi.

Kokinko means “old gold craftsman”. In a broad sense the term is intended to describe pre-Momoyama soft metal fittings which can not be categorized to any specific school or tradition, nor to any specific worker.

Since signatures on fittings do not generally appear until the latest Muromachi, and virtually all early Goto works are attributed by later generations, the usage of the term kokinko may be broad indeed. This vagueness of definition has resulted in the term being extended rather haphazardly to encompass various works in soft metal from earliest times.

To complicate the matter, there is considerable overlap in techniques employed by artisans we now categorize as kagami-shi (mirror makers) and tachi kagagu-shi (tachi fittings makers). Work by both of these groups has invariably been termed kokinko.

It is perhaps through the process of definition and exclusion of kagami-shi and tachi kanagu-shi work, that the term kokinko is best defined.

### **Kagami-shi**

Kagami-shi were a very specialized group of artisans who date back to the earliest metal traditions in Japan. The earliest kagami-shi were imported from Korea and China likely during the Yayoi Period (2<sup>nd</sup> c. B.C). It is perhaps more appropriate to consider them as bronze casters as it is likely that the relative paucity of early metal workers in Japan required diversification into areas beyond the casting of mirrors. One of the three Japanese Imperial Regalia is a mirror, and the skill of bronze casting is referred to with reverence in the Imperial divinity myths and earliest Japanese documents.

In the classic sense, kagami-shi cast items made of bronze (copper + tin or lead alloy), but they later began using cast *yamagane* (unrefined copper). Post-casting decoration was limited to gilding with gold or silver. Early gilding methods employing mercuric fluxes were pioneered by this group. Inlaying or detailed post-cast chasing techniques are not generally considered as part of the original technical repertoire of the kagami-shi (although extremely rare examples do exist). It is generally accepted that kagami-shi tsuba were intended for use on tachi.



Cast yamagane kagami-shi tsuba. Differing motifs on either side of the plate. Hitsu-ana were later additions. The simple, tasteful and well executed cast motif indicate this work to be kagami-shi. Early to Mid Muromachi (15<sup>th</sup> c.). 6.9 x 6.9 x 0.2 cm at seppadai and 0.45 cm at mimi.

One aspect of the kagami-shi designation that continues to puzzle me, is the fact that the level of artistic detail and technical complexity represented in kagami-shi tsuba is consistently at a much lower level than that represented by contemporaneous bronze mirrors. Perhaps we have once again been led onto the wrong path by empirical observations? Perhaps the kagami-shi tsuba would be better classified as tachi kanagushi tsuba created utilizing techniques derived from the practice of mirror making. Thus leaving the designation of kagami-shi for the craftsmen that produced only mirrors such as the one pictured below.



Cast bronze mirror. Note the highly refined workmanship, crispness of execution and exacting geometries. Mid Muromachi (15<sup>th</sup> c.). Victoria and Albert Museum Collection.

### **Tachi Kanagu-shi**

It is likely that the professional tachi kanagu-shi (tachi fittings maker) stemmed from the kagami-shi, as the demand for more elaborate court swords and related accoutrements grew. Note that I am making a clear distinction between tachi kanagu-shi and tachi-shi (tachi maker). Historically, bronze and later iron blades were made by independent specialized groups of artisans, not those employed in the manufacture of mirrors and court-wear metal fittings.

Tachi kanagu are fittings made specifically for tachi. These include scabbard and hilt ornaments, as well as tsuba. Kogai and kozuka are not categorized as tachi kanagu.

Generally, the tachi kanagu-shi employed the same casting techniques as the kagami-shi, with the addition of a number of new methodologies and materials. The chief base metals used for tachi kanagu were *yamagane* (unrefined copper) and bronze alloys (copper and tin or lead). Very rarely, a native Japanese form of brass was used, as was a rare alloy of copper and silver called *hakudo* (precursor of the later *shibuichi*). Very early tachi kanagu, made of a hard silvery alloy of highly variable composition are sometimes termed *sho ki kinko*. Starting with increasing frequency from the middle Muromachi, *shakudo* was used.



Sho ki kinko tachi kanagu of two tigers. Largish, very thin, hard alloy gilded with gold. Crude “female” posts are affixed to the backs. Max dimensions: 6.15 x 2.3 x 0.5 cm deep. Likely pre-Muromachi

Tachi kanagu-shi employed a variety of structural and finishing techniques which included:

- Casting and alloying
- Sukashi
- Gilding utilizing gold and silver applied via a mercuric flux
- Inlay or soldering of pre-cast forms into the soft-metal base
- Stamping, chasing and gilding
- *Nanako*



Large yamagane tsuba with early kaga-style inlay. The mon on the right is of a branch with three leaves, so the correct orientation is with the leaves pointed downward, thus indicating original blade-down (tachi) mounting. This tsuba is of tachi kanagu-shi manufacture. One hitsu-ana was added at a later date. Traces of black lacquer remain on the plate. 8.8 x 8.8 x 0.25 cm. Early to mid Muromachi (15<sup>th</sup> c.)



Aoi tsuba of cast yamagane. On each side of the plate appear 8 punched chrysanthemums gilded in silver, with 16 more appearing on the mimi. Sukashi motifs of inome and rape flowers are cut into the plate. Note the unusual rim entrant feature. This feature is characteristic of early forms of Aoi tsuba. The character of this tsuba is indicative of early yet complex tachi kanagu-shi work. One hitsu-ana was added at a later date. Of interest is that the later seppadai intrude into the ornamental field on the plate, suggesting the earlier seppadai footprint was narrower. 7.1 x 6.85 x 0.25cm at seppadai and 0.85cm at mimi. Kamakura – Nambokucho (13<sup>th</sup> – 14<sup>th</sup> c.)

### Kokinko

With the introduction of the *uchigatana* precursors during the Heian period, and its ultimate wide-spread adoption by the end of the Nambokucho period, a greater demand was created for sword fittings. With the demand came inevitable diversification of technique, material and quality. Remembering that exceptions will always exist, perhaps it is in association of uchigatana that the term kokinko finds its most practical application.

Accoutrements associated primarily with the uchigatana such as kogai and kozuka, menuki, fuchi kashira and scabbard accoutrements have fallen into the kokinko category. Early tsuba of soft metal which display original hitsu-ana intended for either kozuka or kogai are likely associated with uchigatana rather than tachi, and are thus usually termed kokinko.

Kokinko methodology included techniques and materials used by the kagami-shi and tachi kangu-shi, as well as a broader assortment including:

- Gold or silver application into pre-cut grooves ie. uttori, nunome, zogan
- Carved motifs
- Bi-alloy soldering i.e. *sanmai awase* tsuba



Kokinko yamagane kogai with two different motifs on the same plate. The plate is thin and deeply incised on the ornamental nanako field. The thin plate, dual motifs with vertical walls and a steeply upturned scoop are all features characteristic of mid to late Muromachi kogai (late 15<sup>th</sup> – 16<sup>th</sup> c). Some would call this komino work due to the style of ornamentation. 23.0 x 1.5 cm.



Kokinko shakudo tsuba of chrysanthemum motif. Two largish hitsu-ana, uttori application of gold to the petal outlines, vertically arranged fine nanako ground and a gold gilded rim suggest a late Muromachi (16<sup>th</sup> c.) date for this piece. 7.0 x 6.5 x 0.3 cm at seppadai and 0.45 cm at mimi.

### **Late Muromachi**

Examples of cross pollenization of ideas abound between these groups in the late Muromachi. The division especially between tachi kanagu-shi and kokinko work blurs as artisans began diversifying and amalgamating their methods of decoration and experimenting with new ideas. Additionally, the widespread use of the uchigatana and tanto in favor of the tachi led to modification or reutilization of older tachi tsuba to fit the current usage and style.

Late Muromachi examples of tachi kangu-shi tsuba employing various forms of gold and silver inlays and overlays such as *uttori* abound, having replaced the older mercuric gilding methods. Modifications to tsuba by the addition of hitsu-ana are very common, as tachi tsuba were re-employed on the uchigatana. In fact, today it is considered very rare to find unaltered tachi kanagu-shi tsuba which predate the late Muromachi.

If we apply modern understanding of economics and supply / demand, then it would appear that the late Muromachi demand for tachi tsuba should not have supported a

specialized and dedicated group of tsubako. In my opinion, it is more likely that the tachi kanagu-shi as a whole slowly began to shift focus away from tachi towards uchigatana fittings throughout the Muromachi. More and more, I think that the tachi kanagu-shi simply became what we now term kokinko workers by the late Muromachi. There are simply too many commonalities in technique, materials and styles by the late Muromachi / Momoyama to make a clear distinction.

### **Parting Thoughts**

A serious study of pre-Momoyama soft metal tsuba and fittings will quickly illustrate the difficulty and uncertainty of attempting to categorize many pieces. In modern times, scholars have set “base-lines” for each group – this is a Kagami-shi tsuba, while this is a Tachi Kanagu-shi tsuba, etc... Fact is that we have no historic documentation to support these modern categorizations. They are empirical and based loosely on affinities in technique and materials, and thus highly subjective.

Complicating this is the uncertainty and continuing debate on the origin and implementation of the uchigatana as the weapon of choice. Tsubako were a reactionary group that had to adapt to changes in sword shape, size, weight and usage – they were not drivers of change. They created accoutrements – albeit important ones. That is why I think that perhaps the best approach in reconciling the variety of pre-Momoyama soft metal fittings is to ask:

- was this made originally to fit a tachi or uchigatana?
- what were the techniques and influences on the manufacture?
- was the piece modified to suit a different usage than originally intended?
- what is the likely time of manufacture - does it coincide with the observations above?

In my opinion (and I reserve the right to change it), If the tsuba was likely intended for use on tachi it should be termed tachi kanagu-shi. Alternatively, if a tsuba was originally likely made for use on uchigatana, then the term of kokinko could be applied, and affinities left to description.

The term Kagami-shi should not be applied to tsuba due to the starkly differing levels of workmanship between contemporaneous tsuba and mirrors. If techniques akin to those of kagami-shi were employed, then the description is enough to illustrate affinity – no need to apply a new categorization.

**Exercise 1** – how would you categorize these 3 very similar tsuba and assign dates?



1. Small yamagane sukashi tsuba with sukashi of petals and bracken. Difficult to determine if the yamagane plate was cast or mechanically shaped. Sukashi elements are chiseled out, from both sides, leaving a central ridge in each. Yamagane rim is actually applied to the plate, not part of it,

- so technically it's a fukurin. No evidence of hitsu-ana. 6.2 x 5.95 x 0.25 cm at the seppadai and 0.35 cm at the rim.
2. Small cast bronze sukashi tsuba of a chrysanthemum. Sukashi elements appear to have been cast then filed. The bronze rim appears to be cast as part of the tsuba and then sharply cut to show a clean border from the plate. One original thin hitsuana is present. 5.85 x 5.65 x 0.3 cm at the seppadai and 0.4 cm at the rim.
  3. Small cast bronze sukashi tsuba of a chrysanthemum. Sukashi elements appear to have been cast then filed. The bronze rim appears to be cast as part of the tsuba and then sharply cut to show a clean border from the plate. One original thin hitsuana is present. 6.4 x 6.4 x 0.4 cm at the seppadai and 0.45 cm at the rim. Ex-Sasano collection. Published in *Tosogu: Treasure of the Samurai*.

Opinions may vary, but here is mine:

Tsuba #1 does not show evidence of ever being mounted on an uchigatana – there are no hitsu-ana added later, and no evidence of rubbing in the sukashi where a kozuka or kogai could have protruded. The tsuba shows no evidence of being cast, and apparently (oddly) a very fine fukurin was added to the plate of exactly the same material, suggesting it was original. I think it may have been soldered because the only indication of it being a fukurin, is due to a small dent on the rim which breaks through the fukurin. Sukashi is clearly mechanically applied. For these reasons, I would consider this being the work of tachi kanagu-shi. It is thinner and feels finer than the other two tsuba. The date is likely Nambokucho to early Muromachi ca. 1350 - 1450.

Tsuba #2 is cast apparently with the sukashi and the single hitsu-ana. The rim appears to be original to the casting. The presence of the hitsu-ana suggests use on an uchigatana, thus eliminating tachi kanagu-shi origin. I would say that the amount of sukashi is beyond that which would by most be attributed to kagami-shi work, so I would call this tsuba kokinko. The date is likely early to mid Muromachi (15<sup>th</sup> c.), as this tsuba feels a little more robust than the other two.

Tsuba #3 is very similar to tsuba #2 in terms of features and process. I personally think the quality of bronze is higher on this tsuba compared to #2 – the color is paler and texture smoother, indicating a higher quantity of secondary metal such as lead. I would call this one kokinko as well. Sasano attributed this tsuba as early Muromachi (1393 – 1453) kokinko work.

This exercise should illustrate that different groups over a potentially substantial time span implemented virtually the same design elements, creating 3 tsuba that could easily be considered contemporaneous, and possibly by closely related shops.

**Exercise 2** – How would you categorize and date this tsuba?



Aoi tsuba of deep black shakudo is contrasted stunningly by 8 gold gilded punched mon of alternating tomoe and chrysanthemums on each side of the plate, and 18 uttori foiled gold mon of the same motifs on the mimi. Note that the single thoughtfully positioned hitsu-ana is likely original. The rim is an elaborate uchikaeshi dote mimi (high rim originating from, and folded back onto the plate).

High quality shakudo, crispness of execution and diversity of techniques suggests a highly skilled artisan and later date for this tsuba. The rim is not cast, but rather is a very skillfully executed uchikaeshi mimi. Compare this tsuba to that of the much earlier cast Aoi tachi kanagu-shi tsuba presented above. This is likely a revival study of the earlier Aoi tachi kanagu-shi tsuba of the pre-Muromachi. This piece dates to the late Muromachi (early 16<sup>th</sup> c.). I would characterize this as kokinko tsuba, noting that its distinction from tachi kanagu-shi manufacture is blurred. It is through tsuba such as this that I wonder if the tachi kanagu-shi and kokinko artisans were in fact the same group adapting to suit the times and needs of a modernizing military.

**Exercise 3** – How would you categorize and date this tsuba?



Bronze cast tsuba, likely of high lead content. Front side decoration consists of four high-relief early Chinese seal-script characters. The back decoration consists of pairs of very high relief gourds and solitary bosses. The plate is highly stippled, and there is some evidence to suggest this decoration was original to the casting. Two hitsu-ana appear. The square one was likely a later addition, and was crudely chiseled through the plate. The second one is a kogai-ana and appears to have been an unfinished part of the original cast. The unfinished form already shows shape of the intended kogai - with a very thin base and a highly arched scoop. These are all features of very early kogai. There is no other evidence of ornamentation or surface lacquer. 6.8 x 6.1 x 0.3cm at seppadai. Gourd reliefs 0.3cm. Kanji reliefs 0.1cm.

I believe this is a tough one, and here is my opinion:

Clearly the only process utilized originally was casting. The presence of the apparently original but unfinished kogai-ana suggests original use intended for an uchigatana. Thus technically this should be termed kokinko. But this is I believe a very early tsuba due to the unusual motif, the unusually high secondary content bronze and the character of the intended kogai. I would categorize this tsuba as sho ki kinko (early period kinko). This

is a highly problematic designation due to running concurrent controversies of attribution, dating, nomenclature (sho ki kinko vs. Ezo vs. kokinko) and poor understanding of the metallurgy of these early alloys. This also introduces us to the stormy controversy of when uchigatana were implemented?

I would direct everyone to one of the few summaries of such early pieces, in: *The Henry D. Rosin Collection of Japanese Sword Fittings*, 1993. Here John Harding summarizes the character, material and suggested use of such pieces. Dates for some pieces as early as the Fujiwara period (early Heian) are suggested. Personally, I feel a reasonable date for this tsuba is Kamakura Period.

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