

Glossary

The numbers given at the end of definitions refer to the entry numbers in this catalogue.

The Sword and its Parts

1. Sword Type

- Chokutō*: Earliest form of swords without curvature; produced before curved swords were created. 56.
- Daishō*: A pair of *katana* (long sword) and *wakizashi* (medium-long sword); literally: large-small.
- Hoko*: A primitive form of spear with a tang formed as a socket in a shape capable of fitting the handle inside it. Other types of blades called *naginata* and *yari* were later innovations from this form. An original example dating from the Nara Period still exists to this day.
- Katana*: A curved blade longer than 60cm. Worn encased in the *uchigatana* style mounting stuck in the waist sash with its edge facing up, and signed on the side away from the body when thus worn. 2.
- Ken*: A double-edged straight blade with a ridge at the center on both sides.
- Naginata*: Halberd.
- Nagamaki*: Another name given to *naginata* originating from a style of mounting used on *naginata* blades with a long cord-wrapped hilt. It properly means a type of mounting with such a hilt.
- Naginata-naoshi*: Blades made into *katana* or *wakizashi* by shortening the tang and cutting a part of the tip of the back of the *naginata* to make the blade narrower and straighter. 43.
- Jōkotō*: Comprehensive name given to all straight swords (*chokutō*) made prior to the invention of curved swords; between ca. 4th and the mid-10th centuries (lit. ancient sword).
- Kotō*: Literally “old sword”; made between the middle Heian period (ca. mid-10th century) and the Muromachi period (late 16th century).
- Shintō*: Literally “new sword”; made during the period between the late 16th century late 18th century.
- Shin-Shintō*: Literally “neo new-sword”; made between An’ei era (late 18th century) until the promulgation of the Haitō-rei (Edict prohibiting the wearing of the Japanese sword) in the 9th year of Meiji (1876).
- Gendaitō*: Literally contemporary swords made since 1876, in accordance with traditional sword-making technology including charcoal furnace and sand iron ore.
- Shōwatō*: Swords produced between 1926 and 1945, specifically for use in the last World War; machine made and of little artistic value.
- Tachi*: A curved blade longer than 60cm often made before the early Muromachi period; worn suspended by means of a cord from the girdle with the cutting edge downward and the *mei* shown on the side away from the body. 5.
- Ko-dachi*: A small size *tachi* ca. 60cm or less. 57.
- Tantō*: A dagger or short blade, less than 30cm in length. 1.
- Sun-nobi tantō*: Ridgeless *tantō* slightly over 30cm and close to *wakizashi* measurements; many of them date from the Nambokuchō period. 3.
- Wakizashi*: A blade measuring between 30 and 60cm. in length; worn in addition to *katana* by *samurai* since Muromachi days. With the arrival of the Edo period, some privileged merchants and farmers also wore it occasionally. 38.
- Yari*: Spear; a type of blade originating from the *hoko*, made for thrusting with a long pole attached as a handle; extant examples are mostly from the mid-Muromachi period and later.
- Fukuro-yari*: A kind of *yari* whose tang is formed as a socket in a shape capable of fitting the handle inside it instead of thrusting the tang inside the handle as in nearly all other *yari*; sometimes used without the handle as a *tantō* because the tang in the socket shape functioned as the handle when worn stuck through the waist sash; since the middle ages it has often been traditionally called *kikuchi-yari*.
- Jūmonji-yari*: A cross shape *yari* devised to have two branch arms (each with point and both edges sharp) on both sides of the sharp edged middle section.
- Ōmi-yari*: An unusually long *yari* in plain shape measuring about 60cm or more.
- Sasaho-yari*: A *yari* with a wide thrusting section with the transverse width of plain *yari* extended to look like a bamboo leaf.
- Su-yari*: *Yari* of plain, straight shape with sharp edges on both sides.



Chokutō

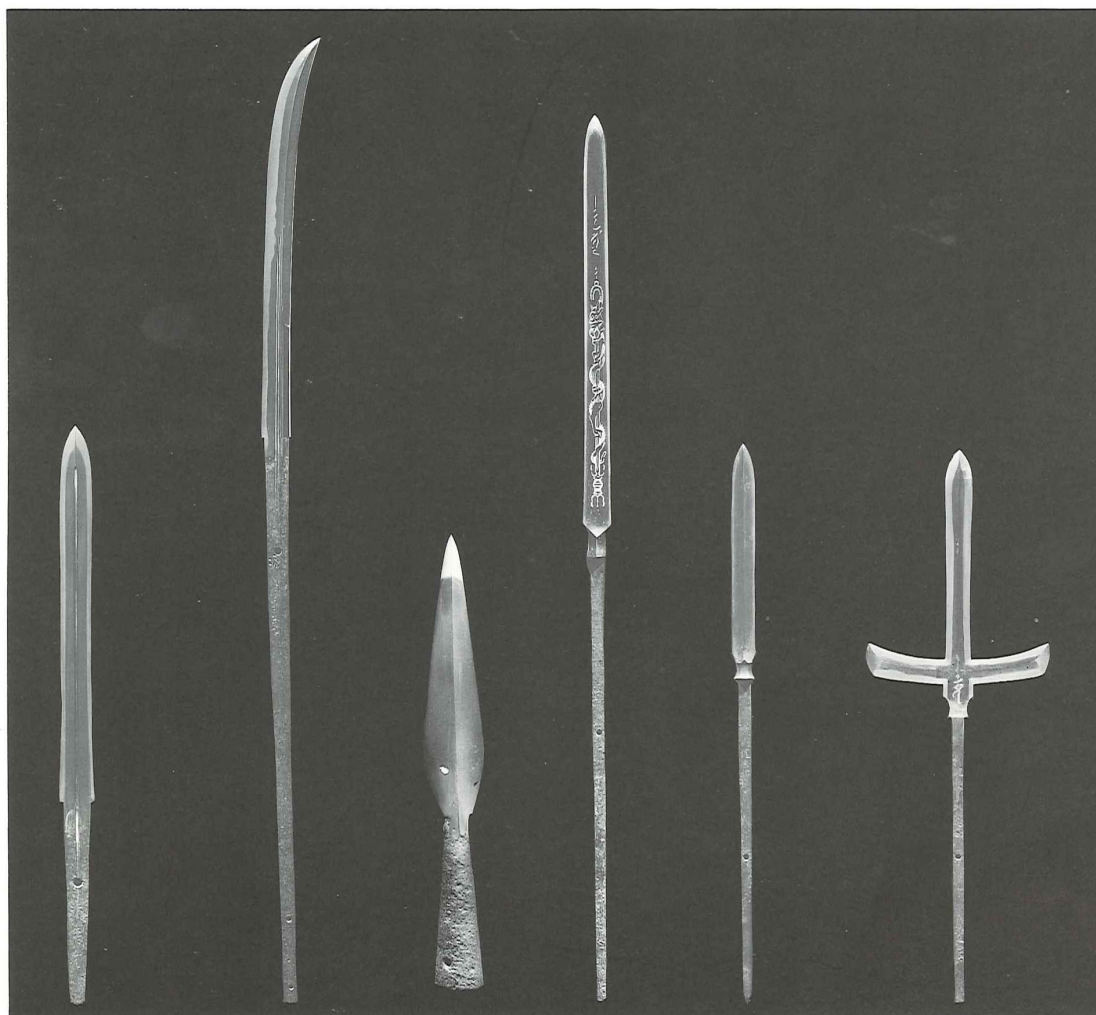
Tachi

Ko-dachi

Katana

Wakizashi

Tantō



Ken

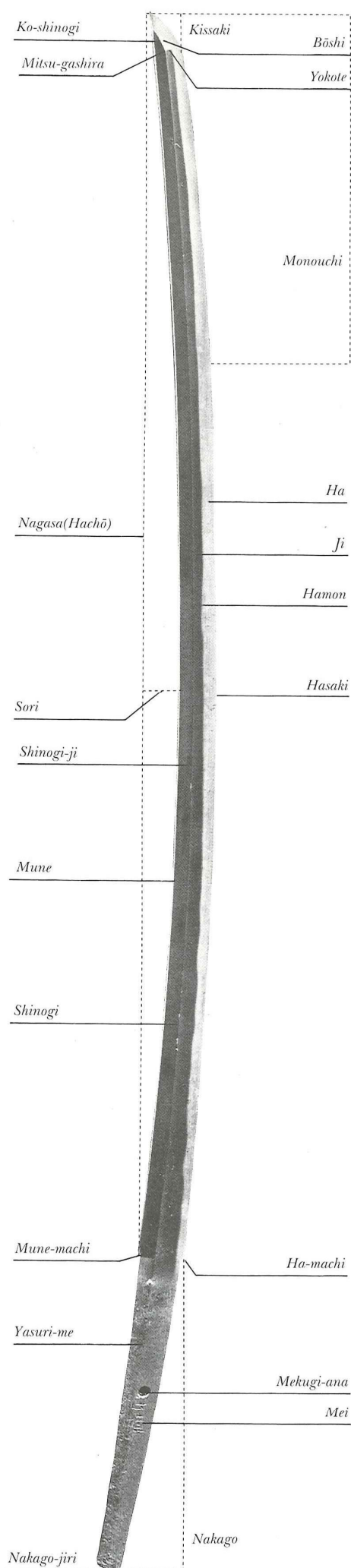
Naginata

Hoko

Ōmi-yari

Su-yari

Jūmonji-yari

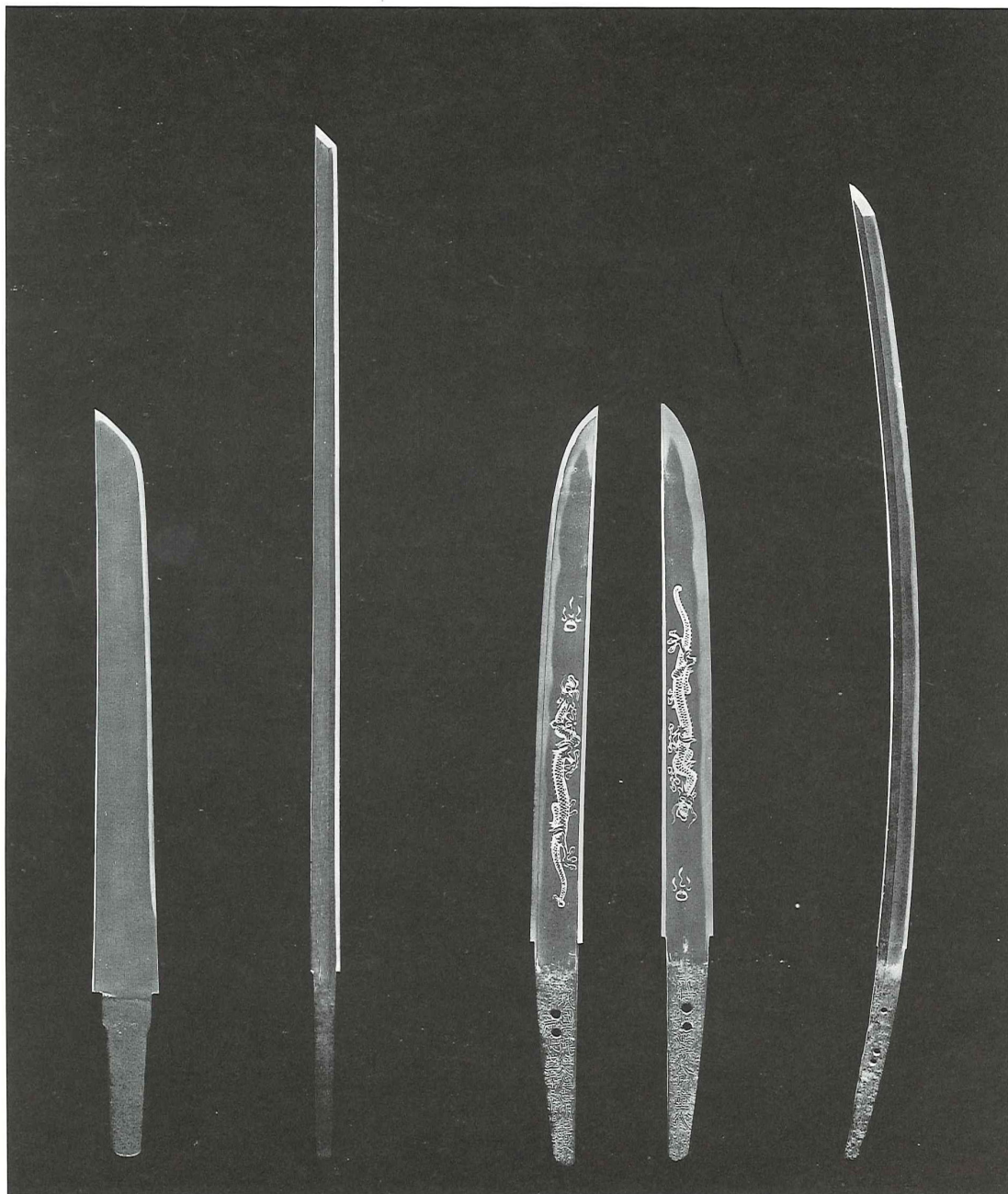


2. Parts of the Japanese Sword

- Bōshi:** Patterns of *hamon* in the point produced by heat treatment following the clay coating on the blade surface. 1.
- Ha:** Sharp edge of the blade including the area where more intensive heat treatment is executed to produce various temper patterns. 32.
- Hachō:** blade length.
- Ha-machi:** Notch (*machi*) on the cutting edge side of the blade at the beginning of the tang. 27.
- Hamon:** Patterns along the sharp edge; literally, edge pattern. 12.
- Hasaki:** blade edge.
- Ji:** Blade surface between the temper pattern (*hamon*) and the ridge line. 32.
- Jihada (Ji-hada or Kitae-hada):** Various steel texture patterns on the *ji*; *kitae-hada*.
- Kasane:** Thickness of the blade.
- Kissaki:** Point of the blade (sometimes called *bōshi*).
- Ko-shinogi:** Continuation of ridge line at the point.
- Mei:** Signature, date and other inscriptions mostly chiseled but occasionally carved in the tang.
- Mekugi-ana:** Rivet hold in the tang (may be more than one, done at different times) 46.
- Mihaba:** Width at the mid point of the blade.
- Mitsu-gashira:** The point near the tip of the blade where the *Ko-shinogi*, *shinogi*, and *yokote* meet.
- Monouchi:** Striking area located approx one-fourth of the length of the blade from the point. 2.
- Moto-haba:** Width of blade measured at *machi*.
- Mune:** Back of the blade, opposite the cutting edge. 1.
- Mune-machi:** Notch on the back of the blade at the beginning of the tang.
- Nagasa (Hachō):** An imaginary straight line between tip of the point and the *mune-machi*, measured to record the length of the blade.
- Nakago:** Tang of the blade; its length is measured separately from the blade section.
- Nakago-jiri:** Shape of the tip of the tang.
- Saki-haba:** Width of blade at *yokote*.
- Shinogi:** Longitudinal ridge between the edge and the back, usually closer to the back.
- Shinogi-jī:** Blade surface between the ridge (*shinogi*) and the back (*mune*). 51.
- Sori:** Blade curvature; the greatest distance measured between the *mune* and the imaginary straight line connecting the point and *mune-machi*. 3.
- Yaki-haba:** Width of surface of blade exposed to more intense heat treatment.
- Yasuri-me:** File-marks on the tang.
- Yokote:** Dividing line (transverse ridge) between the surface of the blade and the point.

3. Shapes of the Japanese Sword (*Tsukuri-komi*; often pronounced *zukuri* when preceded by explanatory word.)

- Hira-zukuri*: A flat or ridgeless blade; mostly found in the oldest blades (*jōkotō*) but later the ordinary shape for *tantō* and *ko-wakizashi* from Heian times onward. 1.
- Kanmuri-otoshi-zukuri*
(*Unokubi-zukuri*): A blade (*tantō* or short *wakizashi*) with *shinogi-ji* thinned down in the middle part but retaining the full thickness at the *kissaki* and the butt end. *Kanmuri-otoshi-zukuri* and *unokubi-zukuri* are sometimes used to mean the same blade structure, but recently a definition that *kanmuri-otoshi-zukuri* is a structure with the *shinogi* reaching the tip of the point while *unokubi-zukuri* is one with the *shinogi* stopping at the back below the point is more predominant.
- Katakirihazukuri*: A blade ridged (*kirihazukuri*) on the side and flat (*hira-zukuri*) on the other side; may be found in all periods but was most frequently used in the Momoyama period.
- Kirihazukuri*: A blade with a ridge placed nearer the cutting edge and the same distance from it throughout its length; older shape next to *hira-zukuri*; limited to *jōkotō* and their later copies.
- Kissaki-moroha-zukuri*: A ridged blade; usually a *tachi*, with a double-edged *kissaki*; exemplified in the famous "Kogarasumaru" attributed to Amakuni (Imperial Collection).
- Moroha-zukuri*: A double-edged blade with a ridge and slight curvature; usually a *tantō*. 37.
- Shinogi-zukuri*: A blade with a longitudinal ridge as well as a transverse ridge (*yokote*) at the point; the most common form of the Japanese sword. 2.
- Shōbu-zukuri*: A ridged blade without *yokote*, shaped like a leaf of iris.
- Unokubi-zukuri*: Literally "cormorant-head" shape. See *kanmuri-otoshi-zukuri*.

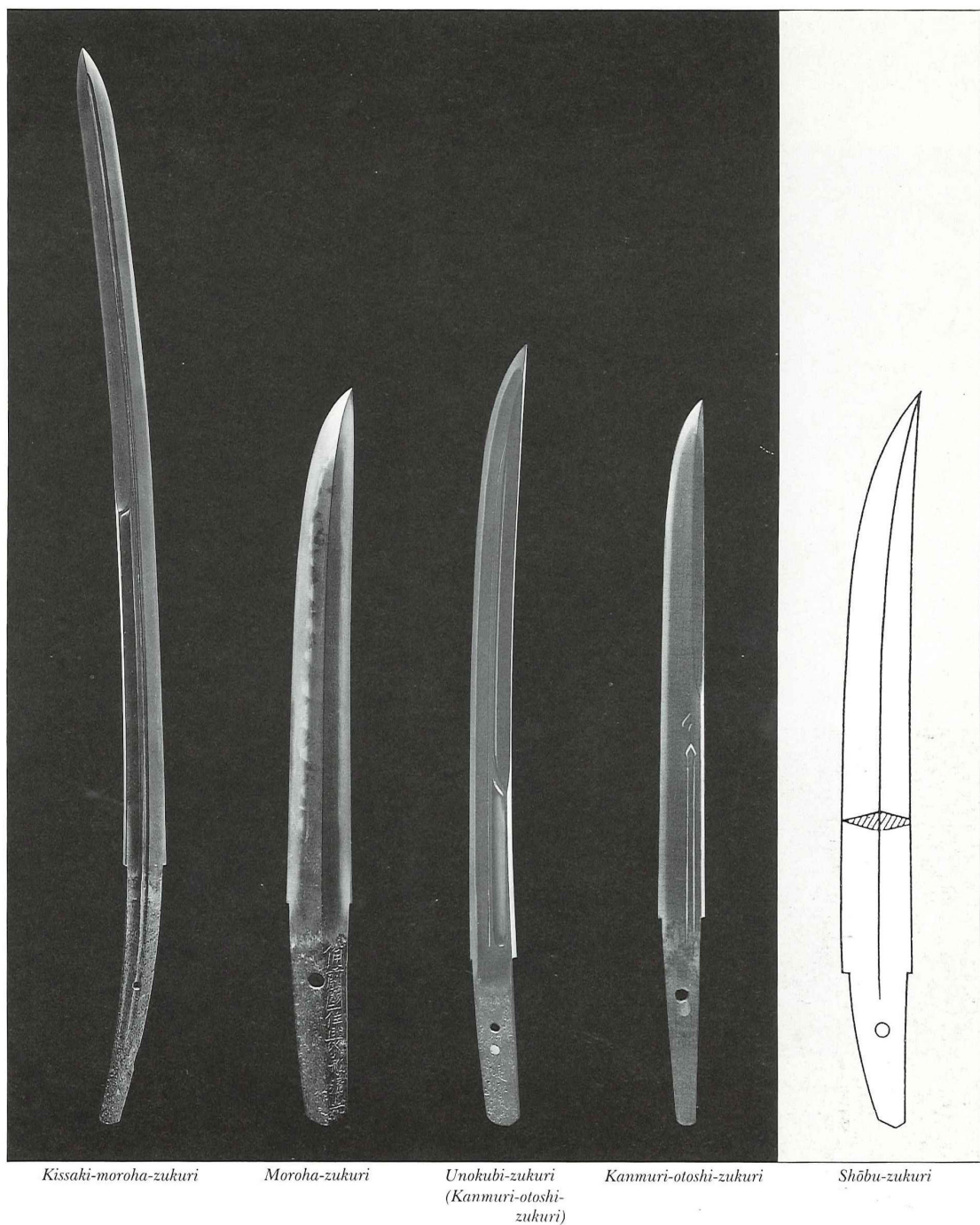


Hira-zukuri

Kirihazukuri

Katakirihazukuri

Shinogi-zukuri



4. Curvature (*sori*; often pronounced *zori* when preceded by explanatory word.)

Koshi-zori:

The center of curvature closer to the tang than to the point; seen in many fine swords produced in Bizen during the late Heian and early Kamakura period; it is also called *Bizen-zori*. Was also the type of *sori* of many of the oldest swords of other provinces made during the earliest part of sword history. 10.

Mu-zori:

Straight cutting section without curvature. 1, 15.

Naka-zori (*Torii-zori*):

The center of curvature at mid-point of blade; seen in many fine Yamashiro or Kyōto blades. It is sometimes called *Kyō-zori*; also sometimes called *Torii-zori* because of the symmetrical shape of the curve which resembles the entrance gate to the shrines known as *torii*. Many *tachi* works produced in the middle to late Kamakura period are of this kind.

Saki-zori:

Curvature increasing slightly near the point; found in *katana* made in the late Muromachi period. 30, 40.

Sori-asai (*Sori-hikui*):

Shallow or modest curvature.

Sori-fukai (*Sori-tsuyoi*):

Marked or deep curvature.

Takenoko-zori:

Similar to *uchi-zori* but the edge of the point is a flattened curve; found typically in Norishige *tantō*, and also some works made in the *Shin-shintō* period, as well as some dating from the late Kamakura and Muromachi periods. 44.

Uchi-zori:

The type of curvature of a *tantō* decreasing near the point; the back line may be nearly or wholly straight or even have a slight reverse curve towards the cutting edge. 7.



5. Point (*Kissaki* often pronounced *gissaki* when combined with explanatory word.)

Chū-gissaki: Medium point found on works made in the middle Kamakura period and later on *Shintō* blades. 2.

Chū-gissaki nobiru: Medium point slightly longer than usual. 24.

Chū-gissaki tsumaru: Medium point reduces in size. 2.

Fukura: The edge curve of the point. 1.

Fukura-kareru: Straight point edge line. 36.

Fukura-tsuku: Rounded point edge curve.

Ikubi-gissaki: Point section short compared to the length of the blade; proportioned like the stubby head of a boar (*Ikubi*) and its large body. 18.

Kamasu-gissaki: Point without curvature in the edge.

Ko-gissaki: Small point mostly found on the oldest swords made during the Heian and early Kamakura eras.

Ko-gissaki nobiru: Small point slightly longer than usual. 5.

Ō-gissaki: Large point found on Nambokuchō – early *Shintō* and *Shin-shintō* works. 4.

6. Ridge (*shinogi*)

Shinogi: Ridge. 2.

Shinogi-hikui: Flat or low ridge (relatively thin blade).

*Shinogi-haba-
hiroï:*

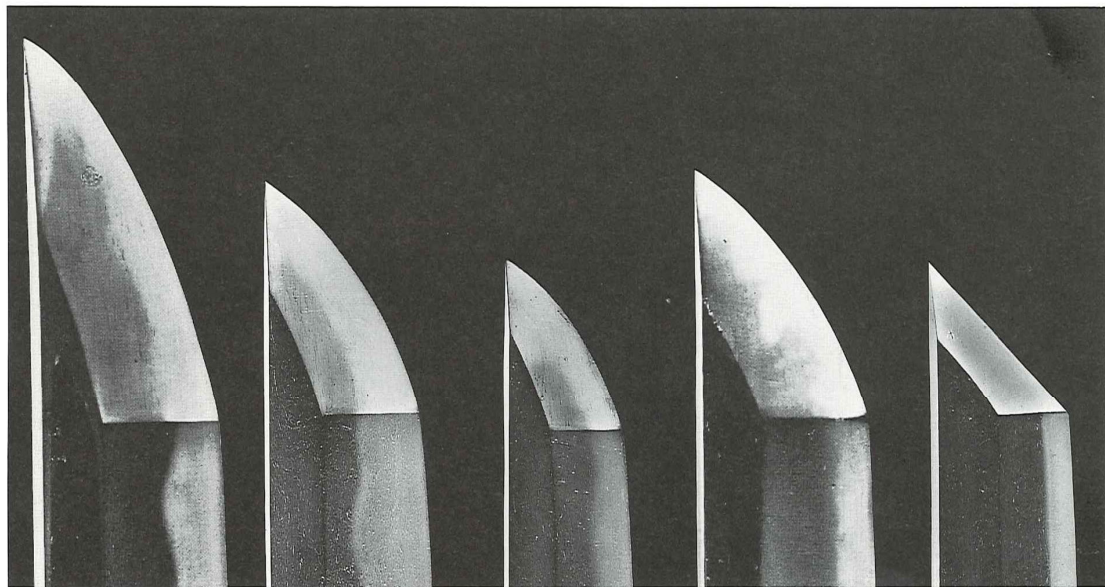
Wide surface between the ridge and the back i.e., nearer the mid line of the blade.

Shinogi-takai:

Raised or high ridge (relatively thick blade).

*Shinogi-haba-
semai:*

Narrow *shinogi-ji*, i.e., ridge nearer to the back.



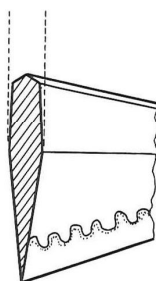
Ô-gissaki

Chû-gissaki

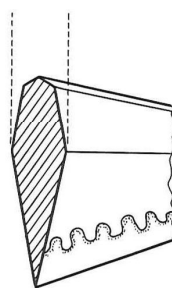
Ko-gissaki

Ikubi-gissaki

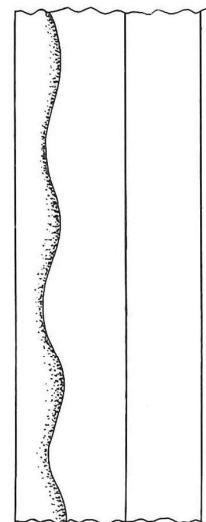
Kamasu-gissaki



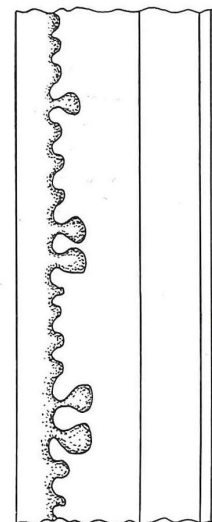
Shinogi-hikui



Shinogi-takai



Shinogi-haba-hiroï



Shinogi-haba-semai

7. Back (*mune*)

Iori-mune

(*gyô-no-mune*):

Triangular back, most common in Japanese swords. 2.

Iori-hikui:

Low *iori-mune*.

Iori-takai:

High *iori-mune*.

Kaku-mune

(*hira-mune*):

Flat back; exclusively *jôkotô*.

Maru-mune

(*sô-no-mune*):

Rounded back; rather rare.

Mitsu-mune

(*shin-no-mune*):

Three-surface back; usually found in works of Sôshû and related schools. 1.

8. Curvature of the Blade Surface (*hiraniku*)

Hiraniku:

The blade surface convex curvature in the *hiraji* between the edge and the longitudinal ridge.

Hiraniku-tsuku:

Convex surface. 18.

Hiraniku-kareru:

Slightly convex or nearly flat surface, due to wear.



Iori-mune
(*gyō-no-mune*)



Kaku-mune
(*hira-mune*)



Maru-mune
(*sō-no-mune*)



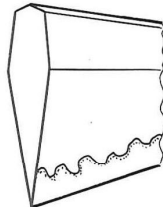
Mitsu-mune
(*Shin-no-mune*)



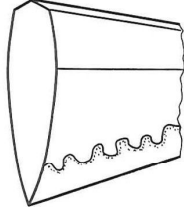
Iori-hikui



Iori-takai



Hiraniku-kareru



Hiraniku-tsuku

9. Shapes of Tang (*Nakago*)

- Funa-gata*: Ship bottom shape, often found on *wakizashi* and *tantō* blades in Sōshū style of the late Kamakura and early Nambokuchō periods.
- Furisode-gata*: Kimono sleeve shape designed to fit in a *tantō* mounting made for bearing on the right side of the body for the right handed.
- Kijimomo-gata*: Pheasant thigh shape narrowing on the edge side toward the tip so as to permit the ornamental pins on the hilts of old full-dress *tachi*-style mountings to go through without striking the tang; found in *tachi* works made during the Kamakura period.
- Machi-okuri*: Shortened blade in which the *mune* and *ha-machi* are moved up a short distance without cutting off the tip of the tang. 17.
- Suriage-nakago*: Shortened tang but with the inscription remaining intact; also simply called *suriage*. 1.
- Ō-suriage*: Shortened blade that has lost its original tang and inscription. 4.
- Tanago-bara-gata*: Fish belly shape, often found on works produced by Muramasa and his pupils in the Muromachi period.
- Ubu-nakago*: Original, intact.



Funa-gata



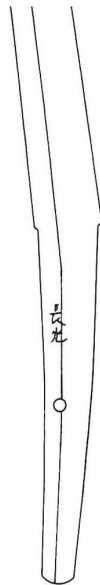
Furisode-gata



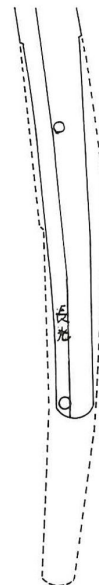
Kijimomo-gata



Tanago-bara-gata



Ubu-nakago



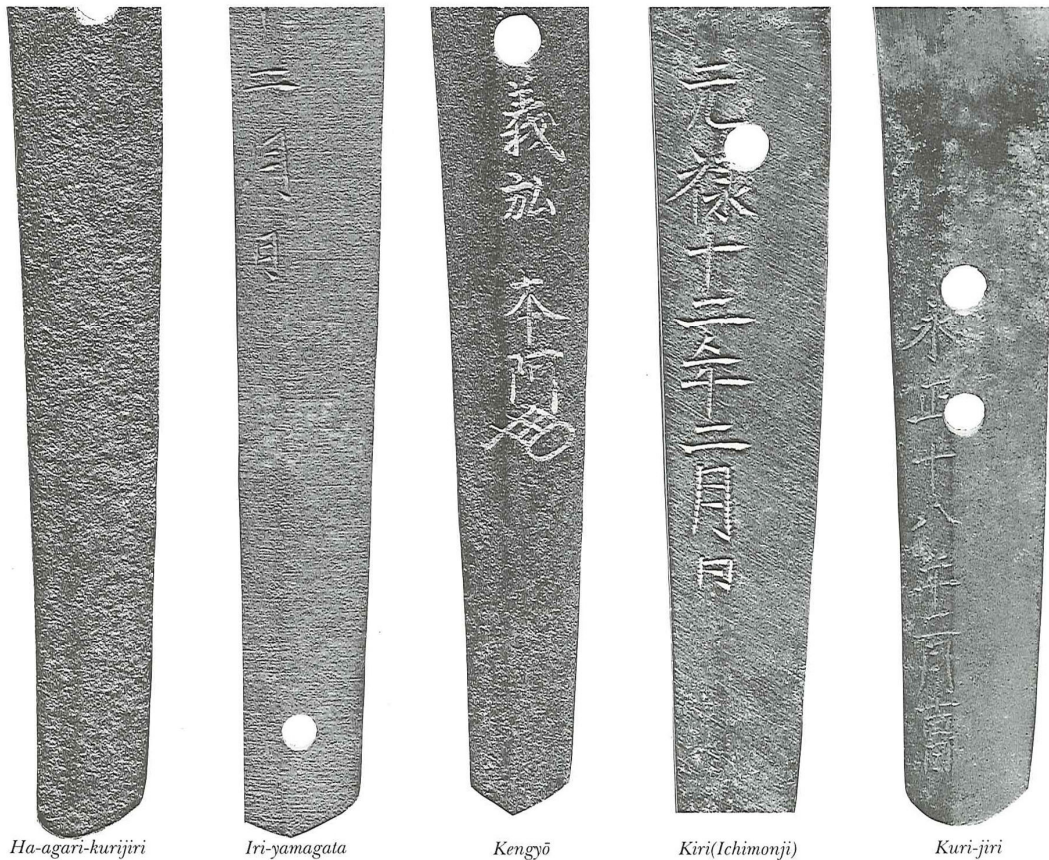
Suriage-nakago



Ō-suriage

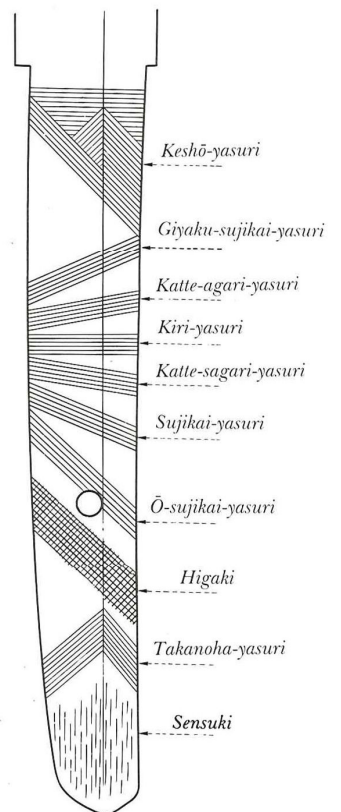
10. Tip of the Tang (*nakago-jiri*)

- Iri-yamagata*: Unevenly v-shaped. 7, 65.
- Kengyō*: V-shaped like the point of a *ken* blade. 98.
- Kiri*
(*Ichimonji*): Square end. 1.
- Kuri-jiri*: Chestnut-shaped. 3.
- Ha-agari-kurijiri*: *Kuri-jiri*, slanted towards the sharp edge. 13.



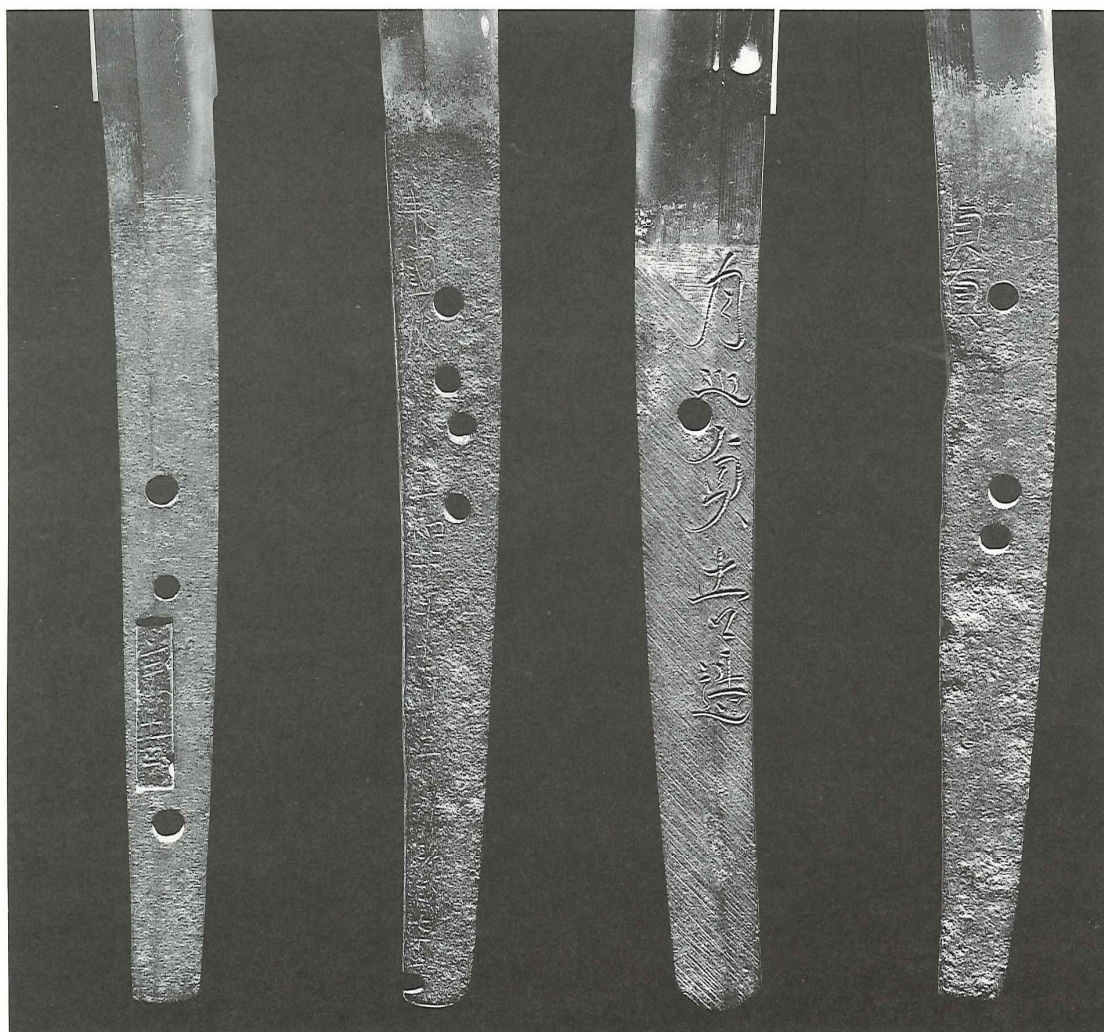
11. File-marks on the Tang (*Yasuri-me*)

- Higaki*: Check marks often found on *Yamato*, *Mino*, and *Naminohira* (*Satsuma*) blades made in the *Kotō* period, but also on a small number of *Shintō* blades of the same tradition. 44.
- Katte-agari-yasuri*: File-marks with slight upward slanting toward the right. 120.
- Katte-sagari-yasuri*: File-marks with slight downward slanting toward the right found in both *Kotō* and *Shintō*, especially in *Bizen* blades. 8, 11.
- Keshō-yasuri*: Various decorative file-marks chiseled close to the *machi* found only on *Shintō* and *Shin-shintō* blades. 64, 70.
- Kiri-yasuri*: Parallel transverse cuts at right angles to the tang; a common file-mark found throughout *Kotō* and *Shintō* periods. 1–3.
- Sensuki*: Marks with an appearance of a scraped surface seen on the blades made in the period of *Chokutō* (straight sword) as well as on some of the oldest *Kotō* examples.
- Sujikai-yasuri*: More marked slanting than *katte-sagari*. 4.
- Ō-sujikai-yasuri*: *Katte-sagari* (downward slanting toward the right) even more emphasized than *sujikai*. 6.
- Giyaku-Sujikai-yasuri*: Inversely slanting from the right to the left.
- Takanoha-yasuri*: V-shaped or “hawk feather” shaped; found on *Kotō* blades in the *Yamato* tradition or both *Kotō* and *Shintō* blades made in the *Mino* tradition. 42.



12. Signature on the Tang (*mei*)

<i>Dai-mei</i> :	Signature inscriptions done by substitute (usually immediate pupils or fellow students).
<i>Gaku-mei</i> (<i>tanzaku-mei</i>):	Signature cut from the original tang and inserted in the shortened tang. 10.
<i>Kakikudashi-mei</i> :	The name of the swordsmith and the data of completion given on the same side of the tang. (usually, the name and the data are given separately on opposite sides of the tang).
<i>Kaō</i> :	Monogram sometimes added below the maker's signature. 102.
<i>Katana-mei</i> :	<i>Mei</i> given on the outer side when a <i>katana</i> is worn with the cutting edge facing upward. 17.
<i>Kin-zōgan-mei</i> :	Appraiser's (usually <i>Honnami</i> 's) inscription in gold inlay, usually on a shortened tang having lost the original signature. 16.
<i>Kinpun-mei</i> :	Appraiser's inscription in gold lacquer on the tang giving the attribution to a swordsmith.
<i>Kiritsuke-mei</i> :	Inscription executed by someone other than the artist. 67.
<i>Mumei</i> :	Unsigned.
<i>Naga-mei</i> :	Full or long inscription showing address, title, etc. 14.
<i>Niji-mei</i> :	Signature inscription in two Chinese characters.
<i>Orikaeshi-mei</i> :	Signed area folded onto the opposite side of the tang to shorten the blade. 33.
<i>Saidan-mei</i> :	Inscriptions usually in gold inlay showing the record of cutting tests. 74.
<i>Shu-mei</i> :	Appraiser's (usually <i>Honnami</i> 's) inscription in red lacquer on the intact tang of an unsigned blade, giving the attribution to a maker.
<i>Tachi-mei</i> :	Signature given on the outer side when a <i>tachi</i> is worn with the cutting edge downward.
<i>Tanzaku-mei</i> :	See <i>Gaku-mei</i> .
<i>Ura-mei</i> :	Inscriptions given on the back of tang.
<i>Zuryō-mei</i> :	Honorary titles given by the court as in "Izumi-no-kami Kunisada". 63.



Gaku-mei
(*tanzaku-mei*)

Kakikudashi-mei

Katana-mei

Tachi-mei



Kin-zōgan-mei

Orikaeshi-mei

Saidan-mei

Shu-mei

13. Forging and Tempering: Characteristics of the Japanese Sword

<i>Hamon:</i>	Edge pattern produced by special heat treatment including clay coating.
<i>Kitae:</i>	Special forging techniques differentiating the Japanese sword from any similar cutting weapons in the world.
<i>Tama-hagane:</i>	Steel for the Japanese sword produced from sand iron ore refined in charcoal furnace.
<i>Tsuchi-dori:</i>	Application of clay coating in the process of heat treatment.
<i>Yaki-ire:</i>	Special heat treatment on blades complete with quenching in water.

14. Temper Patterns And Other Features (*hamon*; usually *ha* but sometimes *ba* when preceded by an explanatory word.)

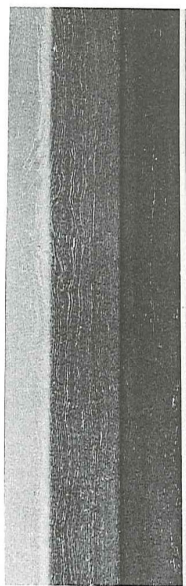
Hamon are classified by two general types: straight lines called *suguha* and irregular patterns called *midareba*.

<i>Suguha:</i>	Plain straight linear patterns. 1.
<i>Chū-suguha:</i>	Medium wide tempered area outlined by a straight line.
<i>Futo-suguha:</i> (<i>Hiro-suguha</i>):	<i>Suguha</i> with a wide tempered area.
<i>Hoso-suguha:</i>	Narrow <i>suguha</i> . 7.
<i>Midareba</i> (<i>Midare-ba</i>):	Various irregular patterns in the cutting section. 2.
<i>Chōji-midare:</i>	Clove-shape waves. 13.
<i>Ashi-naga-chōji:</i>	<i>Chōji</i> with relatively long projections toward the edge. 113.
<i>Juka-chōji-midare:</i>	Double or multiple <i>chōji</i> clustered together. 10.
<i>Kawazuko-chōji:</i>	Singularly round-headed <i>chōji</i> like tadpoles.
<i>Ko-chōji:</i>	compact <i>chōji</i> .
<i>Kobushigata-chōji:</i>	Fist-shaped <i>chōji</i> . 66.

<i>Saka-chōji</i> :	Oblique <i>chōji</i> , slanted toward the tang. 79.
<i>Gunome-midare</i> :	Regularly wavy or zigzag line forming compact patterns. 3.
<i>Gunome-chōji-midare</i> :	Mixture of <i>gunome</i> and <i>chōji</i> .
<i>Juzu-ba</i> :	Stringed bead-like patterns.
<i>Kataochi-gunome</i> :	Sawteeth-shaped variation of <i>gunome</i> . 20.
<i>Togari-gunome</i> :	Pointed <i>gunome</i> .
<i>Hakogata-midare</i> (<i>Hako-midare</i>):	Box or square-shaped patterns. 24, 101.
<i>Hitatsura</i> :	Tempering effects shown all over the blade. 4.
<i>Kikusui</i> :	Chrysanthemum-on-water pattern.
<i>Ko-midare</i> :	Compact irregular patterns. 10.
<i>Kuichigai-ba</i> :	Interrupted temper pattern of parallel lines. 2.
<i>Mimi-gata</i> :	Earlobe-shaped <i>midare</i> . 45.
<i>Notare</i> :	Wavy curves or undulating lines. 1.
<i>Ko-notare</i> :	Compact undulating patterns. 37.
<i>Ō-midare</i> :	Large irregular wavy patterns.
<i>Sanbon-sugi</i> :	Zigzag lines in clusters of three. 101.
<i>Sudare-ba</i> :	Striated <i>hamon</i> looking like a bamboo-strip shade.
<i>Tōran-ba</i> :	Pattern of wild or stormy curvature and lines looking like ocean waves. 78.
<i>Yahazu-gata</i> (<i>Yahazu-ba</i>):	<i>Midare</i> shaped like dovetails or necks of arrows.



Futo-suguha
(*Hiro-suguha*)



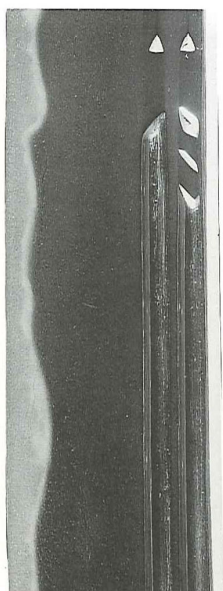
Chū-sūguha



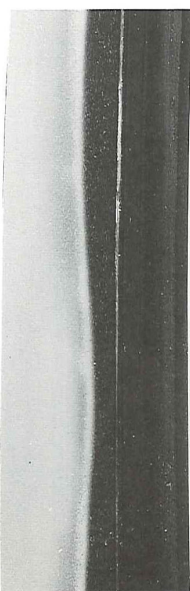
Hosō-suguha



Hitatsura



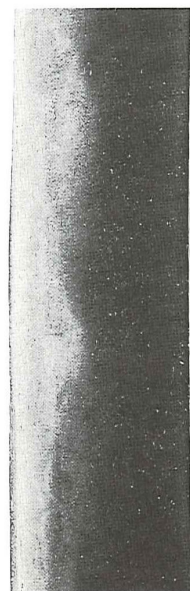
Ko-notare



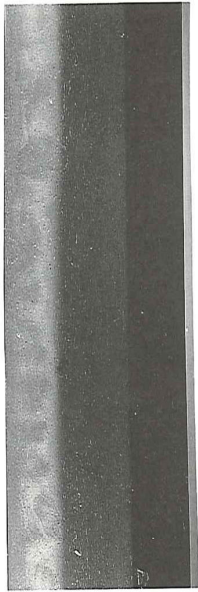
Notare



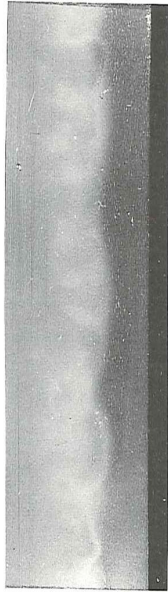
Ko-midare



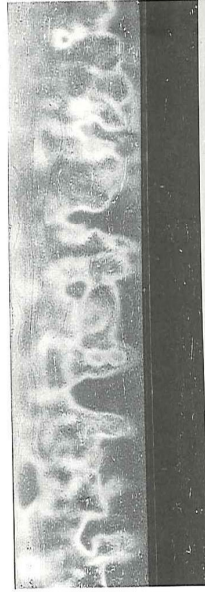
Ō-midare



Ko-chōgi



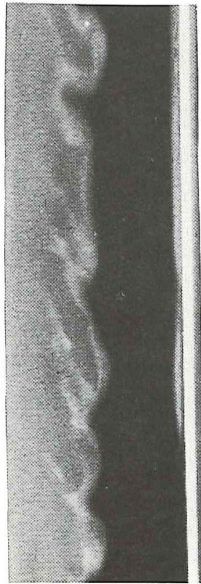
Chōji-midare



Juka-chōji-midare



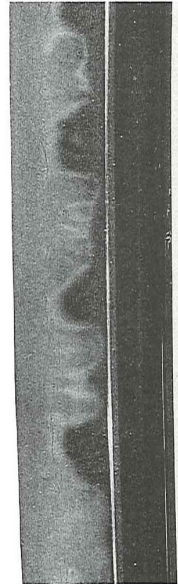
Kawazuko-chōji



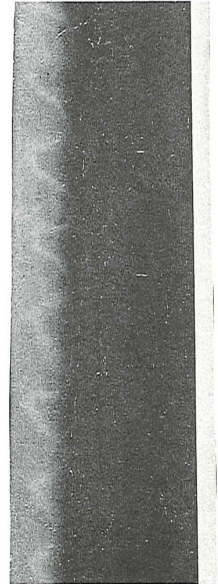
Saka-chōji



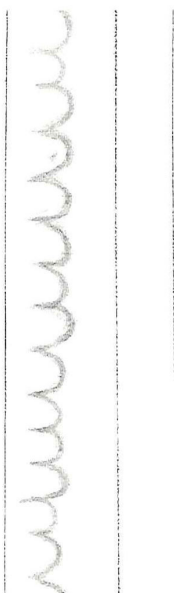
Gunome-midare



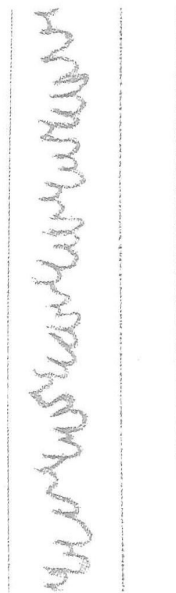
Gunome-chōji-midare



Kataochi-gunome



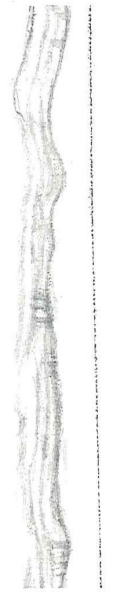
Juzu-ba



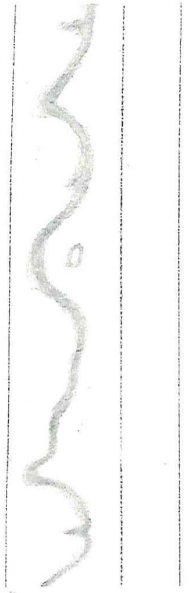
Kobushigata-chōji



Sanbon-sugi



Sudare-ba



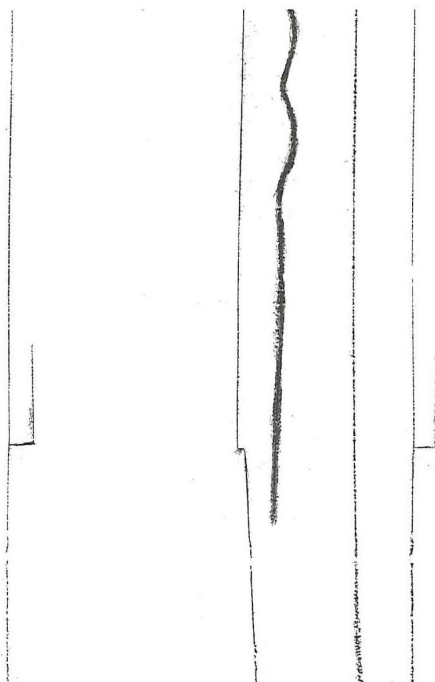
Tōran-ba

Other features of *hamon*:

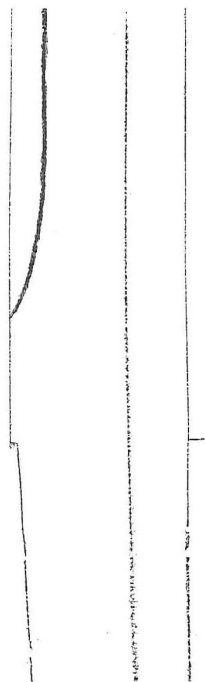
<i>Ashi</i> :	Thin lines of notch-like areas of martensitic structure projecting toward the cutting edge transversely across the <i>ha</i> (generally in an otherwise straight temper line). 6.
<i>Chōji-ashi</i> :	Large and <i>chōji</i> -shaped <i>ashi</i> .
<i>Ko-ashi</i> :	Smaller or shorter <i>ashi</i> . 2.
<i>Hotsure</i> :	Grain formation along the main <i>hamon</i> looking like frayed yarn. 54.
<i>Inazuma</i> :	Fairly long curvy lines of <i>nie</i> looking like flashes of lightning.
<i>Kinsuji</i> :	Curly, whitish, brightly radiant line in or along the main temper patterns, similar in nature to <i>chikei</i> in the <i>ji</i> or to <i>inazuma</i> except in length. 4.
<i>Koshi-ba</i> :	Complex temper pattern usually of <i>chōji</i> or <i>gunome</i> type on the area a few inches above the notch at the base.
<i>Mune-yaki</i> :	Tempered spots of lines on the back (<i>mune</i>). 30.
<i>Nie</i> :	Iron carbides of relatively large size discernible without magnification. 1.
<i>Ara-nie</i> :	Large coarse grain. 4.
<i>Ji-nie</i> :	<i>Nie</i> lining the grain structure in the <i>ji</i> . 1.
<i>Ko-nie</i> :	<i>Nie</i> relatively small in size.
<i>Nie-deki</i> :	<i>Hamon</i> and <i>ji-hada</i> composed of <i>nie</i> .
<i>Nioi</i> :	Extremely fine iron carbide giving a misty appearance to the <i>jihada</i> . 13.
<i>Nioi-deki</i> :	The blade surface texture composed of fine <i>nioi</i> grains.
<i>Nioi-fukai</i> :	Thick <i>nioi</i> formation of the <i>hamon</i> .
<i>Nioi-guchi</i> :	The border between the <i>ji</i> and <i>ha</i> . 73.
<i>Nioi-saeru</i> :	Bright and clear <i>hamon</i> in <i>nioi</i> structure.
<i>Nioi-shimaru</i> :	Narrow or thin outline of <i>hamon</i> in <i>nioi</i> structure.
<i>Nijū-ba</i> :	Double-lined <i>hamon</i> . 2.
<i>Saiha</i> (<i>Yaki-naoshi</i>):	Retempered or reproduced pattern on a blade whose original <i>hamon</i> was lost because of exposure to heat, as in fire; also called <i>yakinaoshi</i> . 11.
<i>Sanjū-ba</i> :	Tripled-layered straight lines. 27.
<i>Sunagashi</i> :	Grain formation looking like drifting lines made of sand. 2.
<i>Tobi-yaki</i> :	Rounded isolated areas of martensitic steel present in the <i>ji</i> separated from the main <i>hamon</i> . 4.
<i>Uchinoke</i> :	Fine, line-like formation of <i>nie</i> in crescent or other irregular curvy lines, extending from the <i>hamon</i> toward the <i>ji</i> .
<i>Yakidashi</i> :	Narrowed and straightened portion of <i>hamon</i> as it starts near the <i>ha-machi</i> . 59.
<i>Yaki-otoshi</i> :	<i>Hamon</i> starting a short way above the <i>ha-machi</i> .
<i>Yō</i> :	Tiny, leaf-shaped grain formation detached from the <i>hamon</i> and projected toward the edge. 13.



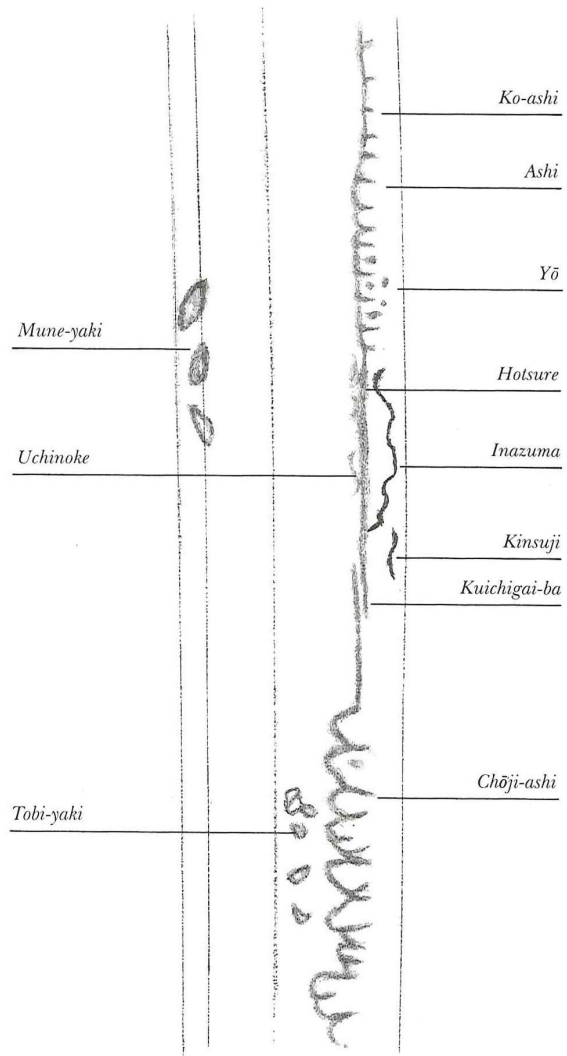
Koshi-ba



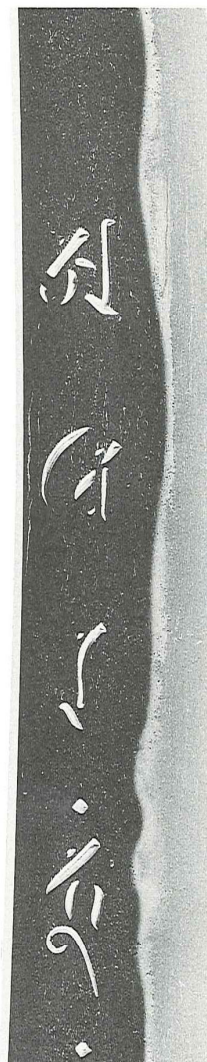
Yakidashi



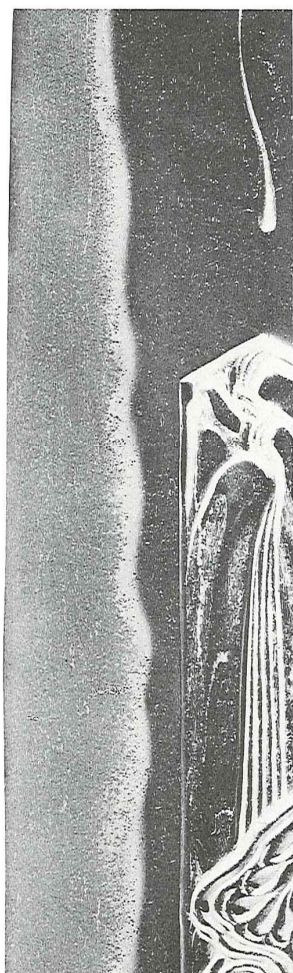
Yaki-otoshi



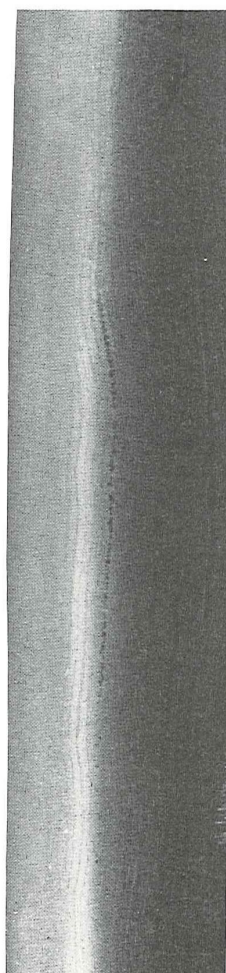
Nioi-deki



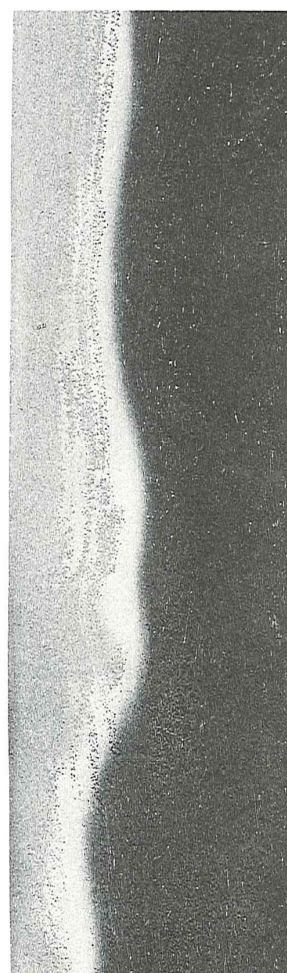
Nie-deki



Ara-nie



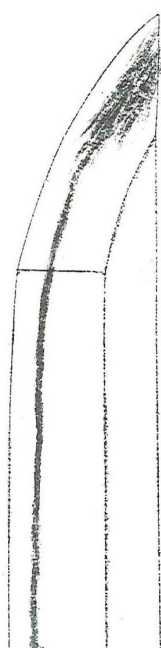
Nijū-ba-Sanjū-ba



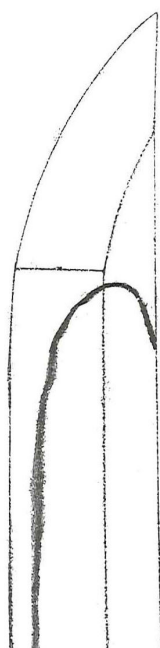
Sunagashi

15. Temper Patterns in the Point (*Bōshi*)

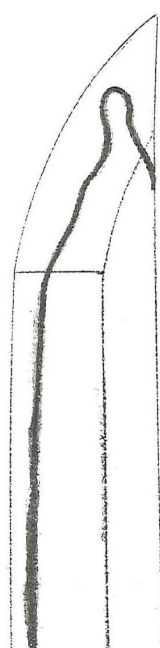
<i>Hakikake</i> :	Multiple tempered lines like the tracings of a broom on the sand; similar to <i>sunagashi</i> in the cutting section. 2.
<i>Ichimai</i> :	Without <i>hamon</i> on the point because of the heat treatment affecting the whole area.
<i>Jizō</i> :	Round head-shaped, like the profile of a Buddhist stone figure standing by the road in the country (<i>Jizō</i>). 44.
<i>Kaen</i> :	Grain formation like flames of fire. 6.
<i>Kaeri</i> :	"Turn-back" and part of the <i>bōshi</i> going down along the back. 3.
<i>Kaeri-asai</i> :	Short turn-back.
<i>Kaeri-fukai</i> :	Long turn-back.
<i>Ko-maru</i> :	Rounded in a small semicircle at the tip. 2.
<i>Midare-komi</i> :	Continuation of irregular pattern in the cutting section.
<i>Notare-komi</i> :	Wavy curve continuing from the cutting section. 3.
<i>Ō-maru</i> :	Rounded in a large semicircle at the tip.
<i>Rōsoku-bōshi</i> :	Having a thin point looking like the wick of a lamp. 23.
<i>Tsukiage</i> :	Sharply pointed with a turn-back. 23.
<i>Yakizume</i> :	Stops at the back without a turn-back. 12.



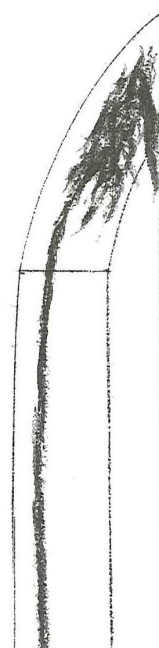
Hakikake



Ichimai



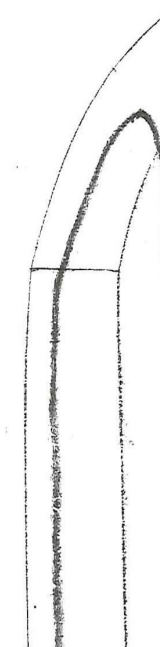
Jizō



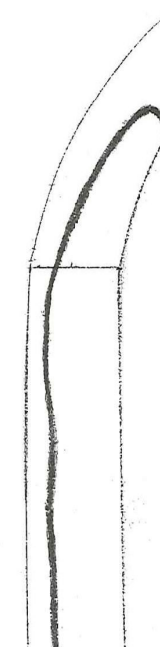
Kaen



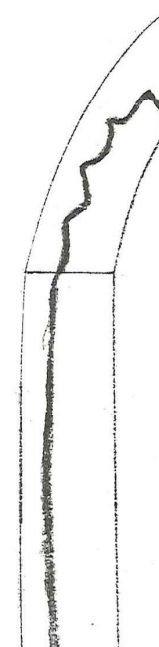
Kaeri-asai



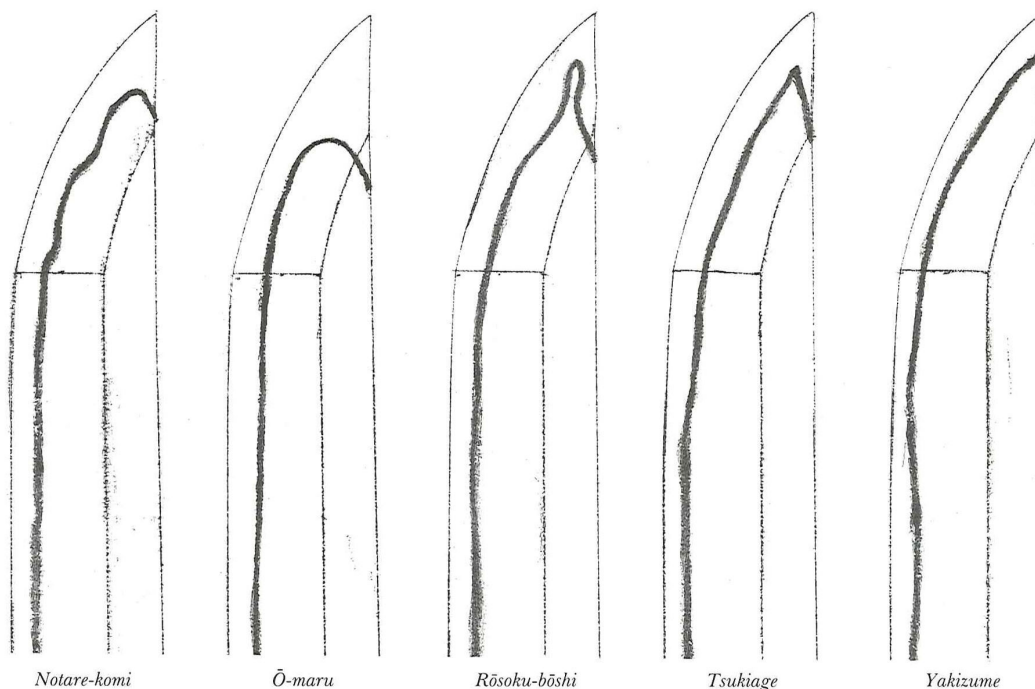
Kaeri-fukai



Ko-maru



Midare-komi



Notare-komi

Ō-maru

Rōsoku-bōshi

Tsukiage

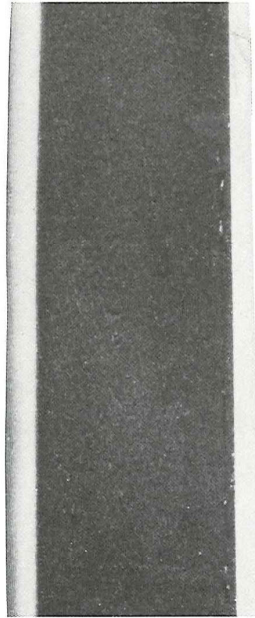
Yakizume

16. Patterns of Steel Surface Texture (*kitae, ji-gane* or *ji-hada*)

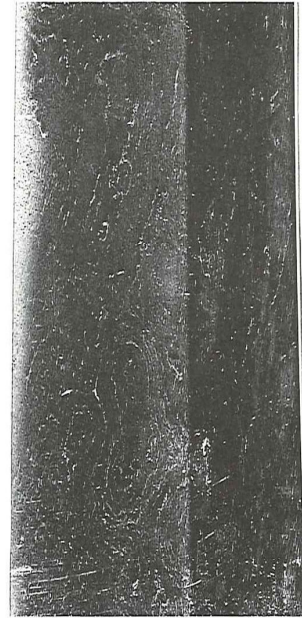
- Kitae (Ji-gane or Ji-hada):* Blade surface texture or grain formation produced by special forging involving repeated folding of the steel.
- Ayasugi-hada:* Concentrically curved grain. 70.
- Chirimen-hada:* A texture with an finely wrinkled appearance like that of crepe silk.
- Itame-hada:* Wood grain. 3.
- Ko-itame:* Compact wood grain. 1.
- Ō-itame:* Large wood grain.
- Konuka-hada:* Very fine, dense grain formation named after rice powder. 110.
- Masame-hada:* Straight grain. 4.
- Masake (Masa-gokoro):* Partially straight grain mixed in *itame*.
- Matsukawa-hada:* Steel surface texture containing abundant *chikei* to resemble pine tree bark; also called *Norishige-hada*.
- Mokume-hada:* Burl grain. 8.
- Muji:* No steel texture present, but clear and plain like a mirror's shiny surface.
- Nashiji-hada:* Pear-skin-like densely grained, uniform steel surface texture.
- Ō-hada:* Large and loose grain structure. 45.
- Other features of *ji-hada*:
- Chikei:* Brightly shining, short, curvy lines present in the *ji* similar in nature to *kinsuji* in the *ha*. 1.
- Hada-datsu:* Grain structure in the *ji* giving the steel an appearance of having a rough and coarse surface. 50.
- Jifu:* Dark, shiny spots in the *ji*. 9.
- Jimie:* Dense *nie* grains showing on the blade surface between the edge and the ridge. 1.
- Sumi-hada:* Irregular dark areas of spots scattered in the *ji*; sometimes also called *namazu-hada* (catfish skin). 53.
- Utsuri:* A band of misty area running parallel to the *hamon*: literally, reflection.
- Bō-utsuri:* Plain, straight *utsuri*. 23.
- Midare-utsuri:* A misty reflection area resembling the irregular temper pattern (*midare-ba*) running parallel to it. 7.
- Shirake-utsuri:* *Utsuri* with a whitish luster.
- Yubashiri:* Tempered spots or bands in the *ji*.



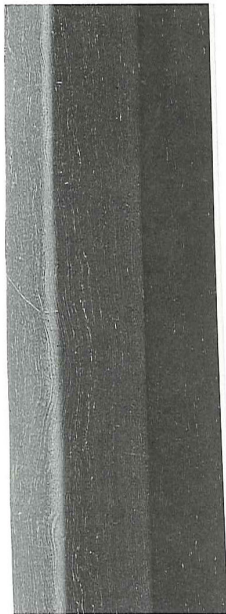
Ayasugi-hada



Ko-itame



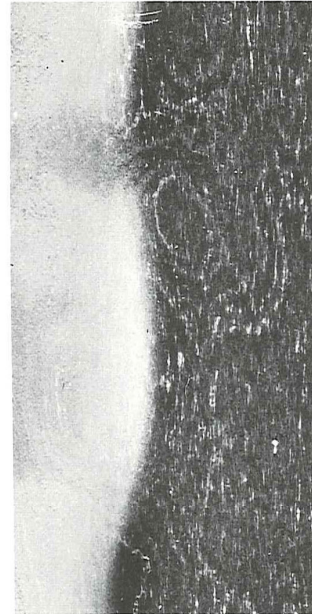
Ō-itame



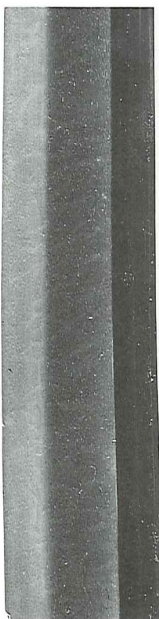
Masame-hada



Matsukawa-hada



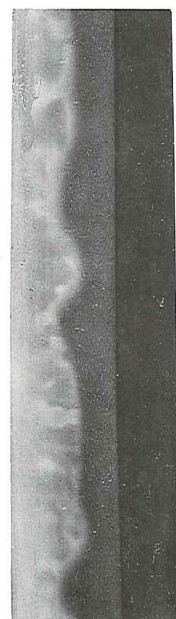
Mokumu and Itame-hada



Jifu



Bō-utsuri



Midare-utsuri

17. Engraving on the Japanese Sword (*horimono*)

<i>Bonji</i> :	Sanskrit graphs symbolizing Buddhist figures.
<i>Fudō</i> (<i>Fudō-Myō-ō</i>):	Figure in the Buddhist pantheon expressing anger against evil forces. 61.
<i>Hi</i> :	Straight grooves in various lengths, widths, and endings.
<i>Bō-hi</i> :	Long, straight, and relatively wide groove starting from the <i>ko-shinogi</i> reaching the <i>nakago</i> . 28.
<i>Soe-hi</i> :	A thin groove accompanying the main groove. 33.
<i>Bō-hi-ni-soe-hi</i> :	<i>Bō-hi</i> with <i>soe-hi</i> .
<i>Katana-hi</i> (<i>Katana-bi</i>):	A straight groove carved in ridgeless short swords. 23.
<i>Chiri</i> :	The area in the <i>shinogi-jī</i> not occupied by the groove.
<i>Kata-chiri</i> :	Unengraved area only on one side of the groove.
<i>Ryo-chiri</i> :	Unengraved area on both sides of the groove.
<i>Futasuji-hi</i> :	Two narrow, straight, parallel grooves. 79.
<i>Goma-bashi</i> :	Two short parallel grooves engraved only on part of the blade.
<i>Hi-saki-agaru</i> :	The <i>hi</i> going up as far as the <i>ko-shinogi</i> above the <i>yokote</i> .
<i>Hi-saki-sagaru</i> :	A groove stopping short of <i>yokote</i> .
<i>Kaki-nagashi</i> :	A groove going only part way below the <i>mune-machi</i> and stopping in a pointed shape after tapering.
<i>Kaki-tōshi</i> :	A groove going down through the full length of the tang.
<i>Kaku-dome</i> :	A square-shaped bottom end of grooves stopping at about <i>mune-machi</i> . 43.
<i>Koshi-bi</i> :	Short grooves engraved only the part of the blade that is closer to the tang. 5.
<i>Maru-dome</i> :	A rounded bottom end of grooves stopping above the notch. 51.
<i>Naginata-hi</i> (<i>Naginata-bi</i>):	A groove found on <i>naginata</i> and sometimes on <i>wakizashi</i> and <i>tantō</i> in <i>kanmuri-otoshi</i> structure; accompanied by a <i>soe-hi</i> . 43.
<i>Kasane-bori</i> :	multiple carvings on the blade such as a combination of <i>bonji</i> , <i>rendai</i> , and <i>suken</i> .
<i>Kudari-ryū</i> :	A dragon in a descending posture.
<i>Shin-no-kudari-ryū</i> :	A descending dragon in naturalistic representation. 52.
<i>Kurikara</i> :	Engraving of a <i>ken</i> entwined by a dragon.
<i>Gyō-no-kurikara</i> :	Semi-cursively depicted dragon entwined around a <i>ken</i> . 25.
<i>Kaen-kurikara</i> :	A <i>kurikara</i> with a flaming point. 107.
<i>Shin-no-kurikara</i> :	Naturalistic depiction of dragon entwined around a <i>ken</i> . 47.
<i>Sō-no-kurikara</i> :	Stylized depiction of dragon entwined around a <i>ken</i> . 48.
<i>Sankozuka-ken</i> :	<i>Ken</i> with a three-pronged hilt.
<i>Shin-go</i> :	Names of Shintoist gods.
<i>Myō-go</i> :	Names of Buddhist gods.
<i>Ni-ō</i> :	The two Deva Kings acting as guardian figures.
<i>Nobori-ryū</i> :	A dragon in an ascending posture.
<i>Rendai</i> :	Lotus-shaped figure.
<i>Suken</i> :	Engraving of the shape of a <i>ken</i> alone. 25.
<i>Tamaoi-ryū</i> :	A dragon chasing a sacred jewel.
<i>Shin-no-tamaoi-ryū</i> :	A jewel-chasing dragon in naturalistic representation. 96.

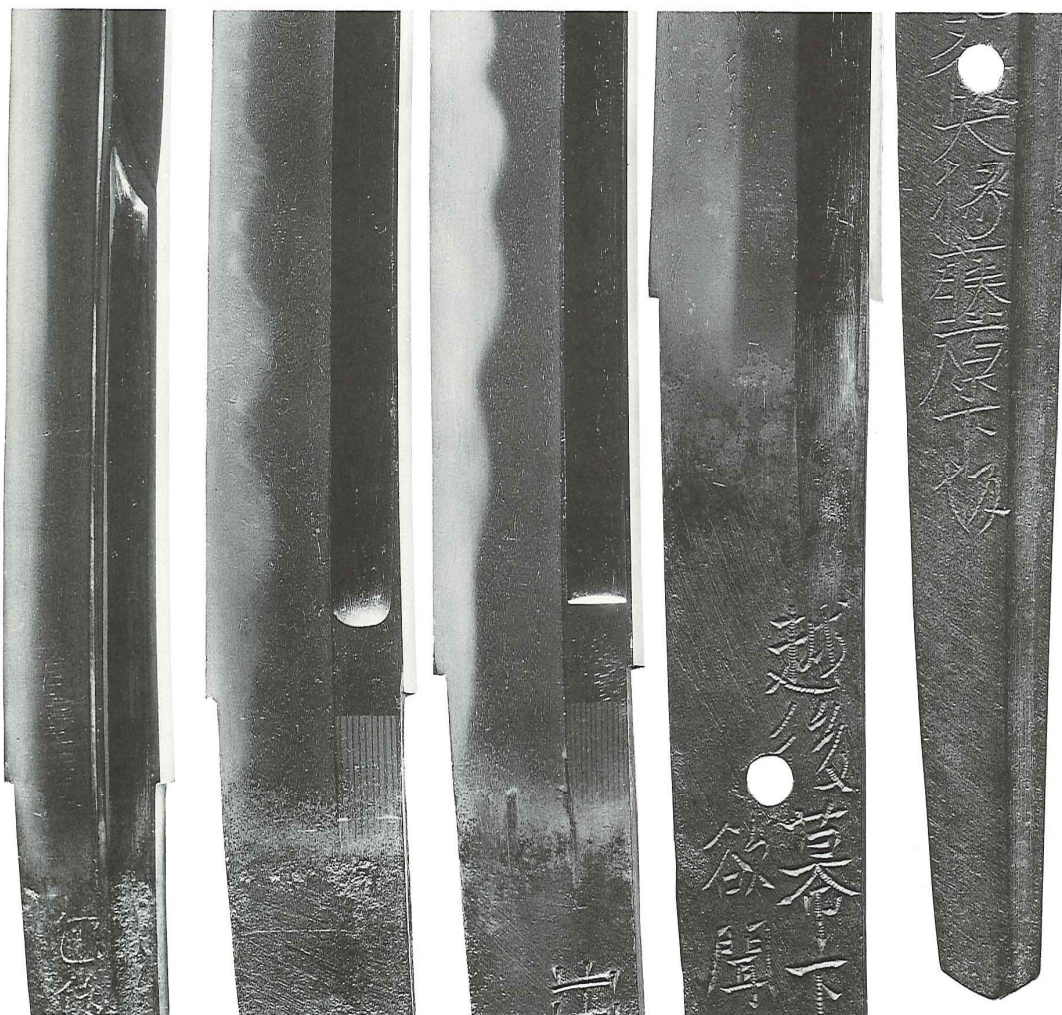


Bō-hi

Bō-hi-ni-soe-hi

Futasuji-hi

Katana-hi (Katana-bi)



Naginata-hi (bi)

Maru-dome

Kaku-dome

Kaki-nagashi

Kaki-tōshi



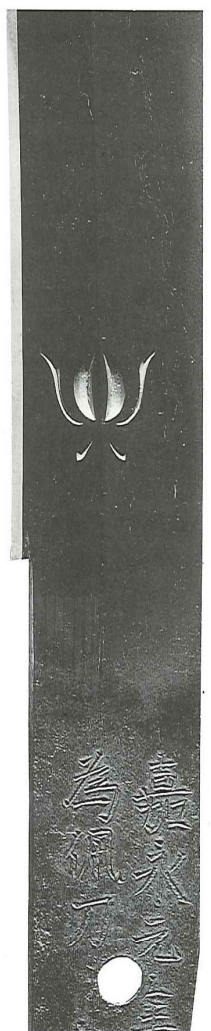
Bonji



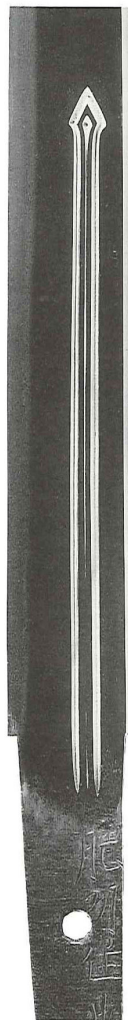
Fudō(Fudō-Myō-ō)



Niō



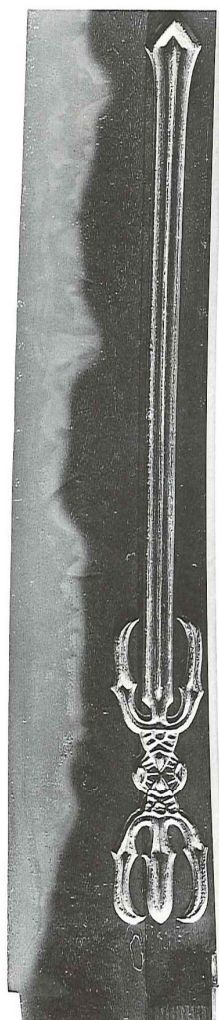
Rendai



Suken



Goma-bashi



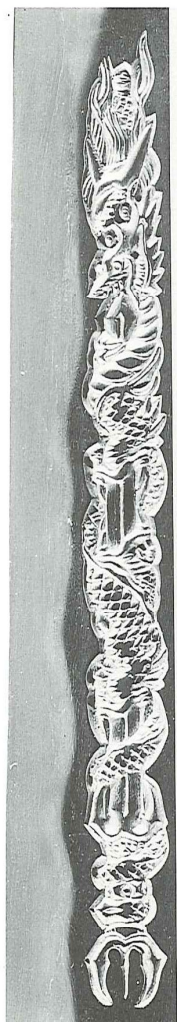
Sankozuka-ken



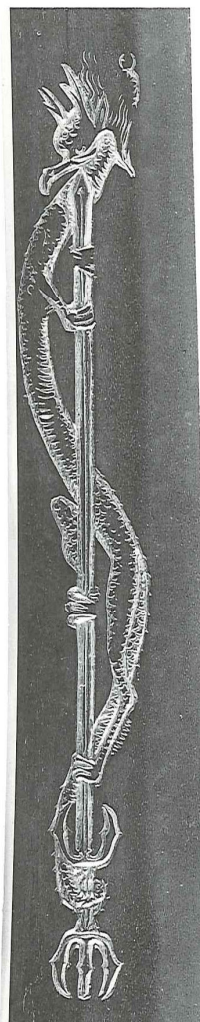
Myō-go



Shin-go



Shin-no-kurikara



Gyō-no-kurikara



Sō-no-kurikara



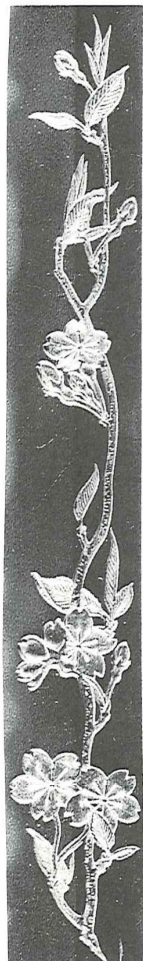
Kaen-kurikara



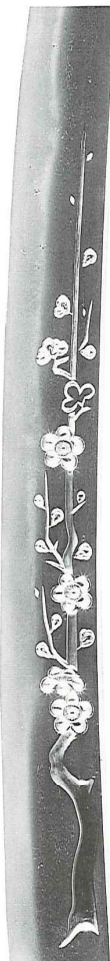
Tamaoi-Nobori-ryū



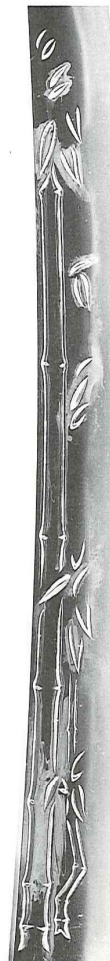
Tamaoi-Kudari-ryū



Cherry



Plum



Bamboo



Kasane-bori