

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~



【About the Author】

(At the time of publication)

Natsuo Hattori

Editor, Writer

Born in Nagoya, Aichi Prefecture in 1973, Natsuo Hattori graduated from Tohoku University with a degree in English Literature and began working for a publishing company in 1996, where he also served as editor-in-chief of cutlery magazines and mooks. As a

writer, he has written and serialized articles in magazines and newspapers such as "Nikkei Technology Online," "National Geographic," "Hitotoki," and the Tokyo Shimbun in the fields of traditional crafts and organic life, in addition to cutlery and iron-related topics. His publications include "Uchihamono Shokunin" (photo: Hisaaki Mihara, World Photo Press). Books he has planned and edited include "Chiyotsuru Korehide: Works and Life of a Blacksmith Who Embodies Japanese Hand Tool Culture" and "Cutlery Compendium" (both World Photo Press), and "Hakaru, Shiru, Kurasu" (published by Kodomo Mirai Keisokusho).

Tomohiro Nakamori

General Manager, Nikkei BP Future Research Institute, Nikkei BP, Inc.
Executive Officer

Tomohiro Nakamori was born in 1959. He joined Oki Electric Industry in 1984, where he was engaged in research on thin-film materials at the Fundamental Technology Research Laboratory. He joined Nikkei BP in 1989 and served as editor-in-chief of Nikkei Mechanical and Nikkei BizTech before

Nikkei Business Publications, Inc.
rights@nikkeibp.co.jp

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

assuming his current position in 2013. He is also a visiting professor at the Waseda University Research Institute. He is the co-author of "Developer Biographies" (co-authored, Nikkei BP, Inc.), "Side Effects of Speculation" (2010, Nikkei BP, Inc.), "FUKUSHIMA Report: The Essence of the Nuclear Accident" (co-authored, Nikkei BP Consulting, Inc.), "Automatic Operation" (co-authored, Nikkei BP, Inc.), and other works. (co-author, Nikkei BP Consulting). He has also done a lot of work in the field of Japanese culture and traditional crafts, including "Honmono no Nihonjin" (Nikkei BP, Inc.) and "Gino no Kokoro" (Nikkei Technology Online, Inc.).

Takeshi Fujimori

Photographer

Born in Tokyo in 1942. Graduated from Tokyo College of Photography (now Tokyo Polytechnic University). After studying under photographer Ken Domon, began freelancing in 1970. Mainly focuses on Japanese cultural traditions such as antiques and Buddhist statues. He also continues to photograph the collections of more than 90 museums throughout Japan. His photo collections include "Koma: The World of Kumagai Moriichi" (Kodansha), "Hibutsu: The Eleven-Faced Kannon" (Heibonsha), "Hidden Buddhas" (5 volumes; Tokyo Bijutsu), "Nata-bori Arabori: Mysterious Wood Carved Buddhas" (Tamagawa University Press), "Gozaru: Kyogenji Nomura Mansaku no Gei" (Kodansha), "Yanagi Muneyoshi Collection: Beauty for Use" (first and second volumes; Sekai Bunka Sha). Co-author with Masako Shirasu of "Masako Shirasu: My Antiques" (Kyuryudo) and "Flower Diary" (Sekaibunka-sha). He is a member of the Japan Professional Photographers Society. Director and curator of the Ken Domon Memorial Museum.

Masahiko Miyata

Photographer

Born in Ibaraki City, Osaka in 1963. Graduated from the Department of

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

Photography, Osaka University of Arts. He has been a freelance photographer since 1991 and runs M2 Photo, a company that handles advertising photography. Has been photographing swordsmith Kunihiro Kawachi since 1997 and continues to do so. His solo exhibitions include "Under the Dote of the Tenjo River" (Gallery Beni, Contax Gallery, 1994) and "The World of Kunihiro Kawachi, the Sword Master" (HANARE, Fuji Photo Salon, 2005). He is the author of "Glico's Toys" (Shinpusha), "The Life of Kunihiro Kawachi, the Sword Master" (Ribun Shuppan), "The Charm of the Japanese Sword" (Ribun Shuppan), and "Gi: Kishiwada Old City Danjiri Festival" (You Time Publishing). He is a member of the Japan Advertising Photographers Society. He is a lecturer at Osaka University of Arts and a photography instructor at Nikon College.

【Prologue】

The Japanese sword: one and only

The man was surely slain.

However, he ran to the river, and swam away.

But when he came out of the river, he split in half and died.

This is an anecdote about "*Namioyogi-Kanemitsu*," telling us that the sword has unbelievable sharpness.

But it is not only about that.

The Japanese sword cuts well but they do not break nor bend.

This is impossible.

Usually, the sharper the blade gets, it gets more breakable,
and more durable the blade, it is likely to bend.

This is the nature of iron.

However, the Japanese sword cuts well but they do not bend.

Scientists and technicians who are knowledgeable about metal did not

Japanese Sword

Sacred Weapon of the God

~Excerpt from Chapter~

invent this one and only blade.

The original form of Japanese sword appeared at the end of Heian period, about 900 years ago. In the next Kamakura period, they reach the divine point.

Continuing to Muromachi, Sengoku and Edo period, the Japanese sword did not drastically change its form, or the method of manufacture.

They were made by the craftsmen of blades, silently incorporating the trends of their period in a reserved manner.

They are works of the craftsmen.

With trained craftsmanship, they carried on and protected the tradition.

Some of their masterworks mysteriously survived through the threatening wars, incidents and natural disasters, and remains in an excellent shape today.

The weapons made of iron did not get rusted over time.

The craftsmanship is visible here, too.

They firmly stood to their belief and ideal.

That belief and ideal is to the god, not weapon.

They believe the god lies in the weapon.

So, they worshiped it, and prayed for the protection.

But it is well said that God gives misfortunes to those who do not worship.

The way of God is like that of the Japanese sword.

【Episode 6: Facing the legacy while challenging the new era】

—What is not allowed because of this era

“The swords made by *Mr. Kawachi* are always genuine. He must be so strict about selecting his works.” *Kichiya Myoga*, the owner of the authentic

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

Japanese sword shop *Tsuruginoya*, describes *Kawachi's* attitude toward sword-smithing. Before opening *Tsuruginoya* dealing with many traditional masterpieces, Myoga worked for the long-established Japanese sword shop "*Touken Shibata*." He is an expert with a discerning eye and an enthusiastic passion as a Japanese sword lover.

Although receiving such high acclaim from *Myoga*, *Kawachi* showed me a blade he had rejected as a failure during the sword-making process. "Recently, I was asked to make three straight swords for the *Ise Jingu* shrine's *Shikinen Sengu* (annual relocation) ceremony. I made so many blades before selecting the final pieces." He showed one of his rejected pieces and explained that he found a deficiency at the finishing stage.

"If you look at it closer, you will see *fukure* here because it contains some air." This small air pocket, called *fukure*, is created when a small air bubble is trapped between the steel pieces during the *Tsumiwakashi* and *Tanren* stage, welding and forging stacked steel pieces that are repeatedly folded over. The polisher found this little defect by chance while working on the almost final stage of finishing a blade. Even so, the pocket was so slight that I had to stare at it carefully. Otherwise, I would not have recognized it if *Kawachi* did not point it out to me.



弟子に職の感覚を覚えさせる。

写真：宮田昌彦

"Probably the way steel was folded was not good," said *Kawachi*. "This blade will have no problem cutting, but we are not allowed to do it in our era."

Today, swords are no longer used in practice, so smiths have no choice but to pursue the ultimate beauty of a blade. Therefore, even the slightest defect, which might have been tolerated in past masterpiece swords, is

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

unacceptable. At least *Kawachi* thinks so and disciplines himself.



Skills alone are far from enough to make a sword.

Today's swordsmiths do not have an exact way to test the ability of the Japanese swords they make. It is possible to check the sharpness of a blade by cutting a bamboo or straw bundle with the sword-slashing art of *iai-giri*. In many cases, the sharpness of the small blades they make astounds the experts. Nevertheless, it is impossible to know how well the sword cuts for its original purpose as a weapon to slay a human being.

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

When swords were working weapons, they did cut people. The blades were evaluated by various methods to prepare for actual warfare, even in peacetime. One of the famous examples is test cutting by *Yamada Asaemon*. The sword test cutter *Otameshi Goyo* was a governmental post of the Edo Shogunate. The *Yamada* family



belonged to this school, and the head of the family was named *Asaemon* over the generations. *Asaemon* was also a headsman. He received the dead bodies of criminals after executions and used them for test cutting the swords.

Cutting alternative materials instead of human bodies was also widely tested. The straw bundle, *Makiwara Dameshi* (rolled straw test), iron, *Kabuto* war helmets, and deer horns were used for test cutting. Various tests were conducted, such as hitting both sides of a blade with the oak stick to check the strength when fighting each other with swords and even striking the blade's back surface (mune), which is a more fragile part of a sword.

Masterpiece swords that have survived these eras and received high acclaim still exist today. Major techniques and theories of making these swords have been handed down over generations until today. To give the same sharpness as traditional swords, today's swordsmiths seem to create their works by following the making of masterpiece swords and techniques of swordsmiths in the era and school they aim as an ideal.

Japanese swords, however, do not evolve irreversibly through the accumulation of techniques as in the case of high-tech appliances. It is not always the case that those who follow the footsteps of a master swordsmith can also become one.

This indicates that Japanese swords "cannot be made by skills alone."

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

Sword-making may be a complex art involving various elements such as techniques that can be passed on, individual skills that are difficult to pass on, personal senses, aesthetics, quality of materials available at the time, and pine charcoal used as fuel.

Therefore, swords made in the modern age, when science is more



advanced, and techniques and knowledge are more accumulated than in the past, are not necessarily superior to traditional swords. One sword researcher says, "The Kamakura era was a peak period for swords."

Kawachi also claims, "In the history of swords, *jigane* (base iron) and *hamon* (patterns along the cutting edge) were best in the middle of the Kamakura era." The swords made in this era were respected as an ideal form by all later swordsmiths in the next



Muromachi era and the late Edo period. *Kawachi* explains that he and other modern swordsmiths are also trying to get closer to this ideal style.

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

Impossible and meaningless

Nevertheless, *Kawachi* says it is impossible to perfectly recreate such traditional masterpieces with characteristics unique to each era. “If we want to recreate the sword of the Kamakura era, we have to go back to that era. After all, it is the work of human beings. Our surroundings inevitably influence us.”

We don’t even know precisely what kind of *jigane* was used for the masterpiece swords of that era or how they were made in the first place. Under such circumstances, we can never create a blade identical to traditional masterpieces.

Even if such a sword can be recreated, whether it would be meaningful is a different story; otherwise, we don’t need any new blades other than the past swords. Even so, in the world of Japanese swords, great masterpieces of the past have been role models, and swordsmiths continued trying to get closer to past icons as an ideal goal. However, this act is not the same as making a copy.

While trying to replicate the great masterpieces, new master swords and styles are sometimes created. Some of them were then highly evaluated by future generations. This process was repeated in the history of Japanese sword-smithing.

“The work of making a copy itself is not so interesting. But when you try to replicate it, you will recognize the lifestyle and techniques of people in that era. That is what makes it meaningful. You will find the vibe of living in that time and get the feel of that era.”

“It is a strange story. We cannot make the swords that they could in the past. As time changes, however, what people require for swords also changes. In the past, swords were made for use, but gradually they became something to be appreciated aesthetically. Naturally, the way of making swords also changed. The biggest change is probably seen in the *yaki-ire* (heating) method. As a result, the blade’s hardness and the *jigane*’s tenacity

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

have also changed.”

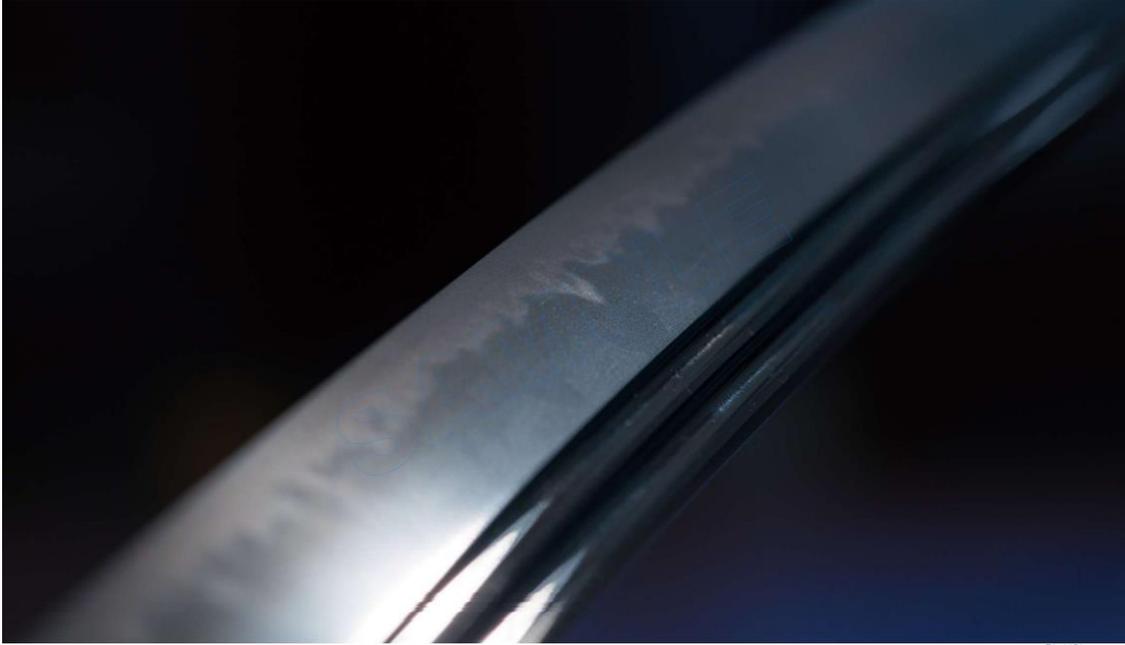
Kawachi explains the meaning of continuous pursuit for getting closer to traditional masterpieces. He continues, “Just copying a masterpiece is not enough. What is important is grasping something through the work of copying, but that alone is also not enough. I think you must create something new while following in the footsteps of tradition. Famous master swordsmiths, such as *Kotetsu*, *Shinkai*, *Sukehiro*, and *Kiyomaro*, were all pioneers. That is why their names remain today. People will not call you a master swordsmith if you keep copying traditional masterpieces.”

The swordsmiths *Kawachi* named were from the Edo period, and they all created something new. Through innovative creation, these swordsmiths heightened their reputation, as seen in the case of *Sukehiro's hamon* with a rolling wave pattern called *Touranba*.

“You have to pursue your creation. However, it is not about doing something weird. If you did something strange with your assumption and claimed that this was the sword made by *Kawachi*, no one would accept it. It is just adding a change and does not show your characteristics. The genuine piece is something that people would say, “This is the work of *Kawachi*,” after I die.”

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~



Sword as a weapon, not an art piece

In 2014, *Kawachi* received the *Masamune Award*, the most reputed recognition in the world of Japanese swords. According to *Kawachi*, he achieved one of his goals which were getting closer to past masterpieces during the process of making the awarded sword. *Kawachi* was recognized for this award mainly because he successfully reproduced *Midareutsuri* (irregular reflections), the pattern on the blade's *jihada* (surface) often seen in old swords primarily created in the Kamakura period. *Midareutsuri* is the dark band pattern that appears on the blade's surface. Reproducing this pattern was one of his goals for some 40 years. This *Midareutsuri* pattern unique to the Kamakura period disappeared from the swords made after the Edo period. Since then, many master swordsmiths have tried to reproduce *Midareutsuri*, but there was no successful case that many experts would admit as "clearly reproduced," although there were some blades that "looked like it." Some researchers even concluded that it would be impossible to reproduce the reflection similar to the Kamakura period as long as modern *Tamahagane* steel is used as material for today's sword-

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

smithing.

Kawachi reproduced this ancient reflection based on the *Bizenden* style. The material he used was the modern *tamahagane* steel that is used for conventional sword-making. The judges of the *Masamune Award* described *Kawachi's* sword as, "Not to mention the robust and well-proportioned shape of the sword and the ancient color of the burnished blade, which is clearly different from that of modern *choji*, this sword stands out for its reflections. For many swordsmiths dealing with the *Bizenden* style, the features of *hamon* (patterns that appear along the cutting edge) and *jigane* (steel surface texture), which lead to reproducing the irregular reflections, have long been their concerns. The irregular reflections are there on this blade by dark bands that appear as spots on the surface, successfully creating an atmosphere close to that of an ancient sword. This is a significant step forward in elucidating the mechanism of the blade's reflection, and it can be said that this sword has reached a new milestone. This innovative achievement should be praised by recognizing this award." (June 2014 issue of the *Tokenbijyutsu* magazine)

After some forty years of tireless research and pursuit, *Kawachi* succeeded in reproducing the techniques of several hundred years ago.

He did not create just this one sword by chance. As a result of clarifying the mechanism that produced the blade's reflection, he succeeded in reproducing 100 percent of the original technique. Two of *Kawachi's* students taught with this reproduction technique also succeeded in making swords with similar reflections. Both received special awards the following year after *Kawachi* was recognized for the *Masamune Award*.

"The old swords in the *Bizenden* style have reflections on the blades. Whether they were made by a good smith or a bad smith, all their blades had reflections. They must have learned from their masters over the generations that forging with this method makes usable blades."

Kawachi uses the term "usable blade," which hides a shift in his thinking that led to reproducing the reflection of ancient blades. In the mid-Edo

Japanese Sword

Sacred Weapon of the God

~Excerpt from Chapter~

period, when swords were less used as weapons and more appreciated as art pieces, the *hamon* of Japanese swords became fabulous and more flamboyant. *Kawachi* believes, "In such an era, many samurais carried swords on their waists but probably never used them."

Meanwhile, the swords praised in the Kamakura period were "usable" as weapons for actual combat, so it is not difficult to imagine that high usability in real warfare was a "selling point" in that era. At that time, techniques for achieving this purpose must have been handed down from masters to apprentices over generations, and "the reflection was not a change intentionally added to the blade like *hamon*, but something that appeared on the blade's surface as a result of pursuing the usability of a sword." *Kawauchi* understands the blade's reflection as such.

"No one would buy a machete or a kitchen knife with the chipped blade. In the same way, we need to make usable swords."

Departing from the conventional wisdom of Japanese swords led to reproduce irregular reflections of the ancient blades. According to *Kawachi*, the *jigane* of the sword with irregular reflections is much softer compared to the sword made by a standard method. "That is why it won't break easily," he explains. "Swords made in the Edo period are probably easy to break. But the swords made before the Muromachi period are hard to break. The big difference is the softness of *jigane*."

It is generally believed that the combined use of soft *jigane* with low carbon content for the core and the strong and sticky steel for the cutting edge of the blade makes the uniqueness of Japanese swords, which "cut well without breaking or bending." However, the sword with successful reflections has a softer *jigane* than the swords *Kawachi* made in the past. He assumes that the *shingane* (core) steel, commonly used in sword-making, serves as a material for just increasing the volume of a blade.

Not something to be made to fulfill your interest

The modern master smith, who has been thinking about the blade's

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

reflections for many years, believes that this softness is the precondition for a "usable sword" that "does not break or bend." In the days when swords existed as weapons for actual warfare, they were miscellaneous tools of daily life for those who used them.

"The famous swords that remain today are often decorated with flamboyant *hamon* patterns. I guess such swords were kept as treasures and never used in practice. Those high heat-treated swords with *hamon* have a higher possibility of breakage, so they might not have been used in practice."

In the periods when swords were not used for the original purpose, the beauty of the *hamon* was appreciated, and the technique to control the patterns of the *hamon* freely came to be regarded as essential for sword-making. *Kawachi* imagines that, even with the growing momentum for the



revival of old swords, heightened by the warfare at the end of the Edo period, it was impossible to return to the lost methods of old sword-making. "The sword-making techniques we learned were probably those used in the Edo period," he suggests.

The pursuit for "usable swords," rather than the pursuit for "flamboyant beauty as an art piece," would lead to reviving the reflections of old swords. *Kawachi* realized this. There was a trigger for his change of mindset. It was when he talked with one of his friends in Sakai city of Osaka, who makes kitchen knives using the

same *honyaki* forging technique as Japanese swords. The friend told him that even a single mistake is not allowed in making kitchen knives because

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

they are daily tools. It is never allowed that a Japanese sword does not cut well or its blade is chipped. Nor is it something that is made to fulfill your interest to produce a beautiful *hamon* pattern.

When *Kawachi* heard this story, he realized, "Ah, that's what this is all about." He looks back, "This can be also said for sword-making. When I tried the idea, I came up with at that time, it brought me a completely different result from what I had done before." This process of realization, *Kawachi* says, is similar to scientific discovery.

"People like those who win Nobel Prizes," says *Kawachi*, "suddenly notice a change after doing many experiments. If you think about one thing constantly, you will not miss finding such a change. However, there may be many people who would find something but then go off in a different direction."

He is always thinking about swords, whether asleep or awake or even in his dreams. How many hours do you think about swords a day? *Kawachi* replies, "If I were to think about something else for even one hour, it would only leave me 23 hours to think about swords." He repeated many experiments, just like scientists, before he could reproduce the reflections of an old sword.

The person who supported him in his experiments was *Seiji Yanagawa*, a master polisher *Kawachi* knew very well. *Yanagawa* also polished the swords that *Kawachi* forged for his experiments. *Yanagawa* stopped working on other pieces when *Kawachi's* blade arrived in the evening. He would start polishing *Kawachi's* work and send it back by the next day. The feel of sharpening *Kawachi's* swords must have been different from other blades that *Yanagawa* had polished, and they must have been similar to those made in the Kamakura period. "This is good," *Yanagawa* encouraged *Kawachi's* works from the discerning eye of a master polisher. Receiving the support of *Yanagawa*, *Kawachi* smoothly moved on to the next experiment.

"Whether making a garden or anything else, nature is much more interesting than artificial things. I don't have to think about making a masterpiece of art. It is nothing more than just making a weapon as a tool."

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

The irregular reflections that appear on old swords from the Kamakura period are a symbol of functional beauty. However, the symbol disappeared as the pursuit of functionality became less critical, and only the appreciation of beauty remained. *Kawachi* had a sincere interest in tradition and recreated the innate beauty of the Japanese sword in today's world after several hundred years.



You cannot make a masterpiece sword without pursuing authenticity.

In this sense, *Kawauchi* is an authentic inheritor of tradition. When you hold a Japanese sword made by *Kawachi* in your hand, you will be surprised to find that it is much lighter than you imagined. *Kawachi* says that a Japanese sword is a tool. Therefore, he carefully removes the core steel of the blade while paying attention to not losing its strength and makes a sword that is light and easy to swing. If you look at his blade, the bluish *jigane* base is reminiscent of the surface of a calm lake, and the white hazy *hamon* pattern undulates over it. The swordsmith pursued the texture of

Nikkei Business Publications, Inc.
rights@nikkeibp.co.jp

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

jigane and the beauty of *hamon* while considering the functionality of a blade. Function and beauty coexist in one sword. This is the goal of *Masamune* and the *Ichimonji* school of greatest master swordsmiths, as well as the reputed swordsmiths whose names have been well-known in later generations, such as *Kotetsu*, *Shinkai*, *Sukehiro*, and *Kiyomaro* mentioned by *Kawachi*. This goal is also what those fascinated by Japanese swords have always sought. It is not a world where one is recognized simply for doing something eye-catching and eccentric. This is the fate of traditional arts and crafts that have long years of history. If you do not pursue authenticity, you will not be able to make a great sword. Perhaps with this in mind, *Kawachi* has been involved in the restoration of many ancient swords, including *Shichishito*, which is said to have been a gift from the king of Baekje, the iron *Inariyama* burial-mound sword, and the large sword excavated from *Fujinoki* burial mound in Saitama Prefecture. The attitude of learning from the past is at the core of his work.

Nevertheless, simply making copies of the old swords will not take you any further. This is true in many things, not only about Japanese swords. While accurately inheriting the techniques and principles from past generations, we must also infuse the spirit of the times into our products. Only through trials and failures for doing better and creating new techniques and styles can we create something that is appreciated beyond time. Repeating this process is what it means to preserve tradition truly. However, while beauty is visible, functionality is difficult to see. Therefore, *Kawachi* says, although he feels a sense of contradiction, "When you create something, you must have a strong will and desire to create."

"I make swords that can be used any time, although I have never tried them (for cutting people)," he continues. *Kawachi's* confidence is based on the fact that he is making swords by following the method he was taught by *Miyairi*, who also made military swords.

Of course, he does not want the time to come when he will ever wield a sword again, nor will he ever do so. Still, he continues to envision that his blades are made for use. This comes from the pride of being part of a lineage

Japanese Sword Sacred Weapon of the God

~Excerpt from Chapter~

of swordsmiths who have continued to make "the most powerful and beautiful weapon in human history."

