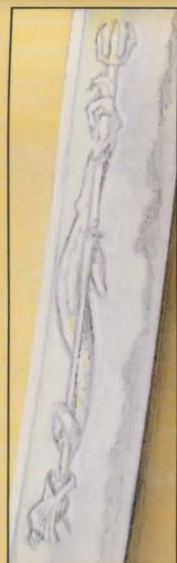


The most perfect steel blades ever created are forged from sand iron ore with heat and cold, skill, patience, strength, and ritual. Two months in the making, a samurai blade is crafted by skilled artisans under the expert eye of the master smith. For a full month, the ore is smelted in a large pit over a charcoal fire tended day and night by as many as ten men. The liquid iron is poured on a smooth mud floor

to cool, then broken into small, rough pieces. More than 20 pounds of raw iron are needed to form a 2- to 3-pound blade. The iron pieces are stacked two inches high on a four-by-six-inch plate, heated—the exact temperature measured only by color—and pounded with hammers to about 12 inches long. The metal is then folded back on itself, and pounded to double length again. The

more folds, the harder the steel. When the steel has been folded and beaten to the desired hardness, it is carefully heated, hammered, and drawn out to the full length of the blade. If the swordsmith is pleased with his work, and finds no flaw in it, he will sign the tang, the unpolished end of the blade that fits inside the full length of the handle.

A dangerous weapon capable of cutting through flesh, bone, and armor, the sword is also a beautiful expression of the aesthetic ideals important in a samurai's life. Designs based on Buddhist symbols frequently decorate the blade of a samurai.



Steels of differing strength are laminated together to create a blade that is strong without being brittle. Soft core steel, for resilience, is folded five

layers. The harder, protective outer steel is folded 10 times for 1,024 layers. The hardest steel for the edge is hammered and folded fifteen times

Different handles were used for dress and for battle. When a sword was captured in war, the victor's handle replaced the vanquished's. Ornaments, called *menuki*, on the handle improve the grip and cover the bolts fastening the handle to the blade.



times, creating 32

to create 32,768 layers. Layers this minute leave no room for impurities in the metal.


Before being sent into battle, a newly forged blade must pass a trial of strength and sharpness, for a superior blade will not break or need to be sharpened. The sword is tested with formal, ritual—and fatal—cuts inflicted on the body of a prisoner or criminal.

The blade is finished with careful polishing, performed by hand with stones and patience.

Its single-edged, gentle curve distinguishes the samurai sword. Designed for cutting rather than stabbing, the curved blade developed as wars began to be fought on horseback.

The blade is covered with a thin coat of clay, scraped thinner in a pattern along the edge for the final tempering. Fired in a darkened smithy to the precise color known only to the master smith, then plunged into cool water, the edge heats and cools at a different rate from the rest of the blade. Jagged crystals form in a hamon pattern along the edge, following the clay pattern.





The Soul of the Samurai

To be a samurai, my son, is to be many things. It is to be a ruler. It is to be a moral ideal and example. It is even to be the measure of manners and taste. But above all, it is to be a warrior with strict and unwavering loyalty to your daimyo. You may humbly question your lord, but you must never betray him. And you must be prepared always to serve him unhesitatingly with your death. Always remember that the ideograph for samurai means "one who serves."

At your side always are your swords: the long sword for combat; the short sword for beheading your vanquished enemy, or for your own honorable seppuku. The long sword will command obedience, for it reminds your subjects of your power. The short sword will command respect, for it is the symbol of your willingness to take your own life.

The sword and the samurai are kindred, for both have been carefully perfected to do battle and both have the capacity for high aesthetic ideals. So entwined are the two, the sword is called the living soul of the samurai.

As a samurai is unequalled in courage, strength, and loyalty, so

violence of battle and faithfully serve its owner as the smith served his emperor. He would create a sword worthy of a samurai.

Amakuni and his son prayed seven days and seven nights to the Shinto gods for guidance in their task. Then they set to work. The perfect sword needed to be flexible to keep it from breaking when struck against enemy armor, so they made the blade's core from soft steel. But soft steel could be cut by an enemy sword, so they covered it with a harder steel. It needed to be and stay sharp, so they made the cutting edge from the hardest steel they could forge. For a longer cutting edge and even greater resilience, they formed the blade into a gentle curve.

The next spring the emperor and his warriors set off for war with Amakuni's new swords. The smith tensely waited to see how his swords would fare in battle. At last the army returned, victorious and with swords intact. To Amakuni's great joy, the emperor again acknowledged him and praised his skill. And this, legend tells us, is how the samurai sword was born.

A master smith keeps the precise techniques of his swordmaking

count greatly. His instructions are written not on paper, but on his heart and mind. He knows to heat the steel to the color of the summer early moon, to cool it in water the temperature of February. He knows the blade must be polished with a series of stones, first rough ones, then finer and finer ones until the blade shines like the surface of a still pool. Only if the blade is without flaw will he put his name to it.

Choose your sword by the name on its blade, for it is important that you know who made it. A samurai cannot know if his sword will grow dull or break with the next blow. For that he must trust the skill of the smith. Neither does the samurai know how a new sword will serve him, whether it will fight honorably or with cruelty. For that, he must trust the temperament of the smith, for the smith imbues the sword with his spirit. I will show you what I mean. Place a sword by the smith Muramasa in a stream. Each leaf that passes will be cut in two. A sword by Muramasa may draw needless blood and may bring you to grief. Now place a sword by the great smith Masamune in the same stream, and the leaves will float around the blade unharmed. A sword by the

the samurai sword is unmatched in sharpness, strength, and beauty. A good sword, like a good samurai, will not break in battle or grow dull with age.

The gracefully curved samurai sword we alone are privileged to wear began long ago as a straight sword made in imitation of weapons from China. Those early swords were of poor quality, as the swordsmith Amakuni discovered.

Amakuni enjoyed the respect of his emperor, who would always acknowledge the great smith when he passed. One day, the emperor and his warriors returned from battle. The emperor passed by both Amakuni and his son Amakura with no show of recognition. Amakuni immediately saw the reason for this snub: the soldiers were returning with broken swords. For a sword to break in battle is a great disaster. Amakuni resolved to forge a sword that could survive the

shrouded in mystery, passing them on only to his apprentices or his sons. He performs the miracle that draws a slender, gleaming blade from a mass of crude steel in his own way, unlike that of any other smith.

As Amakuni prayed for guidance, so do all master smiths. They know the creation of a near-perfect samurai blade is achieved only with divine assistance, no matter how skilled the workers. The smith purifies himself with a deluge of cold water and prays to the gods of his forge before he begins a new blade. It is not a mere craft he practices, but a ritual of creation and transformation to be approached with reverence and the wearing of ceremonial clothes.

To begin, iron must be smelted from sand iron ore in a fiery pit tended day and night for a month. With his rough tools, the smith heats, hammers, and folds the metal over and over, until there are more than 30,000 layers in a one-inch-thick bar—this steel will form the blade's cutting edge. The bars of the different steels for the different parts of the blade are welded and drawn to full length; here is where the smith's secret talents

unharnessed. A sword by the great Masamune is both noble and humane.

You have much still to learn about your sword. Remember to carry your short sword with you always and to keep your long sword in your belt whenever you are outside. Use your sword wisely and well, for it is many things: vengeful and merciful, a tool of death and an ideal of beauty. Draw your sword only to use it with honor: to return your sword to your scabbard unused will dishonor you for acting too hastily and without cause.

When you know the way of the sword, you will be a samurai.

