

Kaga Metal Inlay

Kaga metal inlay, also called *kaga zōgan*, is a decorative metalwork technique that developed in Kaga domain (now Ishikawa Prefecture). The craft is particularly associated with armor, sword fittings, and horse tack produced in Kaga during the Edo period (1603–1867). *Kaga zōgan* is one of several metal chasing techniques known as *chōkin*, which were collectively designated an Important Intangible Cultural Heritage in 1955.

Metal inlays are usually formed by embedding softer metals, such as gold and silver, into a harder base metal. *Kaga zōgan* is a flat inlay technique, meaning the sheets of metal or wire that make the design are made to lie flush with the base metal. A key feature of this style is the way the inlaid metal is held in place. The artisan cuts into the base metal at an angle so that the bottom of the cavity is wider than the opening. When the inlay metal is hammered in to create a smooth surface, it spreads into this indentation and is secured in place by the overhanging base metal.

The designs of *kaga zōgan* are often multicolored. This is achieved with a multilayered approach in which inlaid pieces are themselves inlaid with another metal. Multilayer inlays are difficult to achieve with soldering or adhesives, but the strength of the bond created with the *kaga zōgan* method makes them possible. Unusual colors are also created through a technique called *irogane*, in which traditional copper alloys are treated with weak acidic solutions to create protective oxide coatings and colorful patinas.

In Japan, inlaid swords dating as far back as the Kofun period (ca. 250–552 CE) have been found, but the craft was not firmly established until the advent of metalsmith Gotō Yūjō (1440–1512). Considered the father of Japanese engraving, Gotō developed many decorative metalworking techniques, which his descendants further evolved and disseminated.

Inlay techniques came to Ishikawa in the early seventeenth century, when the area was known as Kaga domain. The lord of the domain, Maeda Toshinaga (1562–1614), invited Gotō Tokujō (1550–1631), Yūjō's great-great-grandson, to instruct local metalworkers on the decoration of armor and horse tack. This arrangement between the Maeda and Gotō families continued for centuries, during which time Kaga domain developed a reputation for exquisite metalwork, particularly inlaid stirrups and armor capable of

withstanding the wear and tear of practical use.

When the Meiji Restoration in 1868 ended samurai rule, metalworkers who made a living supplying samurai with swords and armor lost the main source of their livelihoods. However, government policies supporting trade and international exchange created an overseas market for metal artworks, and some metalworkers were able to pivot to purely artistic pursuits. The craft was once more endangered by metal scarcities during Japan's wars in the first half of the twentieth century, and again when the technological boom years of the second half led to dwindling interest in traditional crafts.

Despite these difficulties, the metalworkers of Ishikawa have endured and passed down the skills and knowledge of *kaga zōgan* to a new generation—artists who are even now developing innovative ways of applying the technique to a modern aesthetic. In 2004, Nakagawa Mamoru (1947–) was designated a Holder of Important Intangible Cultural Heritage for his skill in metal chasing. The Ishikawa Prefectural Museum of Art holds one work by Nakagawa and seven works by his teacher, metal engraver Takahashi Kaishū (1905–2004).