

Japanese Patinas

By Neil Shapiro

The study of Japanese patination of metals is very complex and beyond the scope of this short essay. But to match safe collectors it is worthwhile to know something about the art and technique of Japanese patination if they want to collect Japanese match safes.

For clarity, in this essay, Japanese patination is a carefully developed finish applied to an object to increase its beauty, utility, or presence. Obviously, there are other definitions of patina that accrue from usage, handling, time, and exposure to various elements. But most patinated Japanese match safes have an applied patina deliberately chosen by the craftsman to finish his match safe and that is what this essay will try to explain.

Most Japanese match safes were made for export to Western markets but the craftsmen who made the match safes almost always used indigenous motifs and designs when they crafted the safes. To finish the creation of the match safes the craftsman were undoubtedly influenced by their concepts of beauty and nature. Underlining this was an idea called *wabi-sabi*; the idea that something looks as it should look. Not jarring, quiet and timeless. So the application of a patina melded the idea of function, beauty, and timelessness to an object that would be in daily use and casually handled.

One of the foundation Japanese patinas was called *niage*. It was primarily used on copper and bronze and the finished color depended upon the length of time the object was immersed in the solution. The sequence of colors usually ranged from yellow to rust and from red to dark brown depending on the length of immersion. If *niage* was used on *shibuchi* (an alloy of one part silver and three parts copper) you get a light gray to dark gray coloration. As with all patinas experienced metalsmiths could alter the coloration by adding other chemicals or alloys to the mixtures. But for simplicity we will discuss the most straight forward uses of the patinas and the colors they usually produce.

Another basic patina is *su-tanpan*. Used on copper it produces similar colors to *niage*, so for most match safe collectors it is very difficult to tell the difference between *niage* and *su-tanpan*.

If a foundation patina such as *niage* or *su-tanpan* is used it may be partially removed and other patinas overlaid upon them. Some of these other patinas overlaid on *niage* or *su-tanpan* can produce colors that range from green, to yellow-green, to blue green.

One of the most sort after types of Japanese match safes are those made of an iron base. The Japanese patinas for iron usually produce a rust coloration as this seems to be the desired appearance for Japanese iron products. The application of a patina to iron usually results in a rust-brown color. The surface of a patinated iron match safe must be sealed. This can be done with wax, oil or lacquer. Various varieties of oil, (rape seed, peanut, olive, or vegetable) or wax are preferred for iron match safes as lacquer is very difficult to apply properly.

The application of patinas to unique Japanese alloys such as *shakudo* (3-5% gold, the remainder copper), *sahari* (9% tin, remainder copper), and *kuromido* (1% arsenic, the remainder copper) can produce lovely patinas. For example, *kuromido* on *shakudo* develops a dark deep purplish finish, while on *kuromido* a deep shiny black.

The best book for match safe collectors on Japanese patinas is *Japanese Patinas* by Eitoku Sugimori (2004, Brymorgen Press). It was written for metalworkers and has lots of technical instructions, but the color charts in the back of the book give a fairly good list of colors produced by Japanese patinas on different metals. There are also a number of websites that show various patinas and how they are made and the colors they produce when applied to metals. Some are listed below:

<https://www.ganoksin.com/article/testing-japanese-patina-solutions/>

<http://www.jimkelso.com/japanpatina.html/tutorial.htm>

It is difficult to provide illustrations of the true colors produced by the application of various patinas to match safes as the print quality of our Newsletter is not able to show the subtle differences in coloration. The best way to determine which patina has been applied to a particular match safe is to look at the patinas in the Sugimori book or to look online at the above websites.