

Shino glazes are distinctive in their ability to trap carbon and in their incredible variation. You can glaze 20 pots all the same, do everything the same, fire them all together, and they will all come out of the kiln looking different. Sometime they look great, sometimes they don't. When you use shino, you give the fire permission to impact your work, for better or worse. If you have a huge investment in a pot you may want to use a more reliable glaze.

This is how shino works. Most glazes are basically ground up rocks and water. The ingredients are insoluble. Shino glazes, on the other hand, contain relatively high amounts of sodium, often sourced from soda ash, which is soluble. This results in sodium migrating to the glaze surface when it dries. (This is similar to the effect you would see if you dipped a pot in salt water. When the pot dried there would be salt crystals on it's surface.) This is why I recommend using shino within a specific number of days prior to firing (within one day for DV8 Shino, and up to one week for Dickman shino. This determines the amount of migration.)

During the firing, the sodium melts at a lower temperature than other glaze materials and traps excess carbon from the kilns atmosphere. (This can only happen if you are firing in reduction, not oxidation.) The trapped carbon causes some parts of the glaze to be grey or black. Other parts of the pot, particularly the inside will be orange or white.

Immediately after glazing, if you put wax on some areas of the glazes, the waxed areas block the migration of sodium to the surface, which in turn affects the color of the fired glaze.

If the above was confusing, you should research reduction vs oxidation firing. I have tested many of my glazes in oxidation. Some look radically different, some don't. Some colors that are attainable in reduction are not attainable in oxidation and visa versa. The decision to fire in oxidation or reduction is a choice most potters make early in their careers, and seldom change. There are pros and cons for each. Personally I went for reduction because that is how the ancients fired, by burning fuel, and I was attracted to all the classic ancient glaze colors, textures and subtle variations that occur when humans and fire interact with glaze and clay.

Recommended reading: American Shino: The Glaze of a Thousand Faces by Lester Richter,

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*This article is about the glaze. For other uses, see [Shino \(disambiguation\)](#).*

**Shino glaze** (志野釉 *Shino uwagusuri*?) is a generic term for a family of [pottery glazes](#).

They tend to range in color from milky white to orange, sometimes with charcoal grey spotting, known as "carbon trap" which is the trapping of carbon in the glaze during the firing process.<sup>[1]</sup> The term also refers to [Japanese pottery](#) made with the Shino glaze (see [Shino-yaki](#)).

The first Shino glaze was developed in [Japan](#) during the [Momoyama period](#) (1568–1600), in [kilns](#) in the [Mino](#) and [Seto](#) areas. The glaze, composed primarily of ground local [feldspar](#) and a small amount of local clay, produced a satiny white color. It was the first white glaze used in Japanese ceramics. Wares decorated with Shino were fired in the [Anagama](#) kilns used at that time. [Anagama](#) kilns were single-chambered kilns made from a trench in a hillside that was covered with an earthen roof. As the anagama kilns were replaced by the multi-chambered [norigama](#) kilns during the first decade of the 17th century, Shino was supplanted by the [oribe](#) glazes used in the newer kilns. Shino enjoyed a brief revival in the 19th century, but then faded into obscurity.

In the 1930s and 1940s, two Japanese potters, [Toyozo Arakawa](#) and [Hajime Kato](#), developed the first modern Shino glaze by studying Monoyama Shino pots. Working independently, in 1974, Virginia Wirt, a student of [Warren MacKenzie](#) at the University of Minnesota, developed a glaze formula that also sought to imitate the historical exemplars. Her glaze, which added [soda ash](#) and [spodumene](#) to the base of [feldspar](#) and [clays](#), was the first American Shino.

Shino has since become one of the more popular glazes in American pottery studios. Many variations have spawned from Wirt's original formula. Although many different colorants and fluxes can be added, creating a wide range of effects, Shino glazes in America are all characterized by the use of soda ash and by a high ratio of [alumina](#) to [silica](#). Under certain firing conditions, the soda ash causes carbon to be trapped in the glaze, creating the characteristic grey spots or patches on the glaze surface.

There is also a class of Shino glazes, called Crawling Shinos, which are intentionally formulated to exhibit a [glaze defect](#) known as crawling. These Shinos form small, regular spots of bare clay all over the surface of the pot, some going so far as to cause the glaze to bead up on the surface of the clay.

Due to Shino glazes' low fluxing temperatures, they should be applied before any other glazes. If Shinos are applied on top of most glazes, the off-gassing from the underglaze will bubble through the Shino, resulting in undesirable pitting and other defects.

The origin of the term, Shino, is uncertain. It may be derived from "shiro", the Japanese word for "white". Or it may refer to the tea master Shino Soshin (1444–1523). Kuroda

and Murayama<sup>[2]</sup> refer to a text by Kanamori Tokusiu (1857) which states;

"Shino Soshin had a favorite white-glazed, 'shoe-shaped' bowl, imported from South Asia, which he used as a teabowl."<sup>[3]</sup>