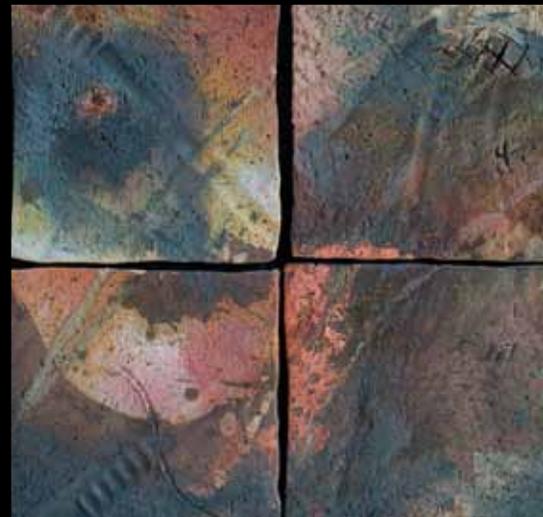


Raku Firing

Advanced
Techniques



Ceramic
Arts
Handbook
Series





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Edited by Bill Jones

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Preface

Raku is probably one of the most popular processes in ceramics due mainly to its simple straightforward process from ball-of-clay to finished glazed ware. And while raku is simple enough for potters of all skill levels to achieve some degree of immediate success, it's the technically skilled and creative artists that have elevated this process to new heights. Raku to them is a vehicle that allows the flexibility to explore and experiment, and in doing so, take the medium to an inspiring level.

This handbook was originally published in the Ceramics Monthly Handbook series in 2004 and soon went out of print. This new revised Ceramic Arts Handbook edition contains more than thirty articles, many of which appeared in the original handbook but with the addition of new materials published in *Ceramics Monthly* and *Pottery Making Illustrated*.

From Hal Riegger, the father of modern day Western raku, to some of the best known raku artists practicing today, you'll find information on forming, finishing, and firing techniques, as well as recipes and stories of the journeys and personal experiences some of these artists have made. For the ceramic artist who has experienced the excitement and the immediacy of the raku process, this book is sure to contain a wealth of information for further exploration and possibilities.

Bill Jones

Raku Then and Now

by Hal Riegger



Raku plate,
approximately
9 inches in length,
with poured and
brushed glaze
decoration.

In the spring of 1948, I thought it would be fun to invite a few friends over, have a potluck supper outdoors and try this raku thing. Aside from Bernard Leach's description and drawings of raku kilns and pots in *A Potter's Book*, the only mention of raku I might have seen was in The American Ceramic Society Bulletin's February 1943 issue. At the beginning of Warren Gilbertson's report on "Making of Raku Ware and Its Value in the Teaching of Beginners' Pottery in America," he mentions (almost casually) that raku's major use in Japan was for the tea ceremony. If either of these sources was where I first heard about raku, I cannot remember. Regardless, I certainly didn't read carefully, or forgot some of what I read.

The weather was perfect for that first raku firing. I lived in the country, partway up Mt. Tamalpais in Marin County, just north of San Francisco. Each of my guests made a couple of tea bowls, and while they were drying, we had a fine supper with good California wine, then got down to the business of finishing the bowls. They were glazed raw, then dried again. I'd made a small electric kiln and put it outdoors. I don't remember if I was first or if one of the guests took the initiative, but a bowl was put into the red-hot kiln and the lid replaced. In about a minute, there was a muffled sort of "poof" sound. We knew what had happened.

I turned off the kiln, and cleaned it out with the vacuum cleaner. A second pot was then put into the



American raku pioneer Hal Riegger removing a plate from the kiln for postfiring reduction.

kiln, which had by then been turned on but was not yet red hot. It took about three minutes before that tell-tale muffled “poof” again.

“Well, that’s it!” I thought. “Those Japanese don’t know what they’re talking about. The heck with raku.”

But I didn’t want to give up. Alone, over breakfast the next morning, I reread Gilbertson’s article, and there on the very first page, he clearly describes the “biscuit” firing. Maybe the Japanese were okay after all.

More slowly, more carefully, I gave it another try, this time using several little bisqued bowls. Although I had wished for someone to share my excitement, I was alone with my first success: a pinched tea bowl, foot

turned on the wheel; the glaze was a pale turquoise with a pink glow inside, and the foot was black.

Before I had an opportunity to do much more raku, a change in jobs took me to Kansas as a designer for a small pottery manufacturer; on return to California, I taught at the College of Arts and Crafts in Oakland. But in 1958, the first time I taught at Haystack, raku was the subject. Those weeks marked the beginning of my serious involvement with the process.

Two years earlier, at the first American Craftsman’s Council convention at Asilomar, near Carmel, California, I had met a Japanese potter who had done raku. Of course I quizzed him about all the aspects of raku that I wanted to know. I remember him making a crude little sketch of a raku kiln on a tiny yellow piece of paper. I wish I still had that sketch. Although we didn’t follow it exactly, it formed the basis of the kiln we used at Haystack.

During three years of teaching in Florida, from 1958 through 1961, I did some more raku and primitive firings (what people now call “pit” firing). A year after returning from Florida to California, I started what I called Experiment A workshops (the title has absolutely no meaning whatsoever). These were week-long workshops “in the field,” where we would find our clay, make and fire pots, all in a very primitive environment. Some of these workshops also dealt with raku fired in wood-burning kilns.

These workshops were held over a period of 17 years in various places around the country, such as the beach at Mendocino, Panamint Valley in the Mojave area, a ghost town in Wyoming and at Cripple Creek in Colorado. Attendees for the primitive pottery workshops were allowed to bring only a shovel and bucket. Other tools had to be found objects.

At first it was hard for us to get totally away from the studio when it came to kilns. Here, we used firebrick and shelves, until one occasion when none were available; it was then that a real breakthrough occurred. An entire wood-burning, top-loading kiln was made from a mixture of clay, sandy gravel and sawdust in more or less equal proportions. We also discovered that a fire could be lit in the wet kiln to dry it out and the mixture wouldn't explode. Although slower than subsequent firings, the first firing took place the day after the clay/gravel/sawdust kiln was built. Some of the kilns the students built became almost human sculptures with breasts and buttocks.

At any rate, by 1964, we had moved a step further from the limiting influence of studio equipment and routine processes into situations demanding creative thought and inventiveness arising from the situation. And, for raku, this was all to the good.

As any potter is wont, when presented with a new tool, material or technique, the workshop participants would go all out and try all possible



**Pinched tea bowl,
approximately
4 inches in height.**



**Raku tea bowl,
approximately
4 inches in height,
pinched, partially
brushed with glaze.**

variations. In retrospect, some of the objects produced may not be quite appropriate in the traditional raku context, but we did explore and we did have fun.

I'm at a loss to explain why or even when I did it myself, but one of the things not traditional among raku potters in Japan that is common among Western potters is a technique called "postfiring reduction." In other words, the pot is put into a reducing atmosphere as it comes out of the glaze firing. This is usually done by placing the pot(s) hot from



A wood-fired raku kiln built from a mixture of fireclay, sandy gravel and sawdust.

the kiln into easily combustible materials in a garbage can and covering with the lid.

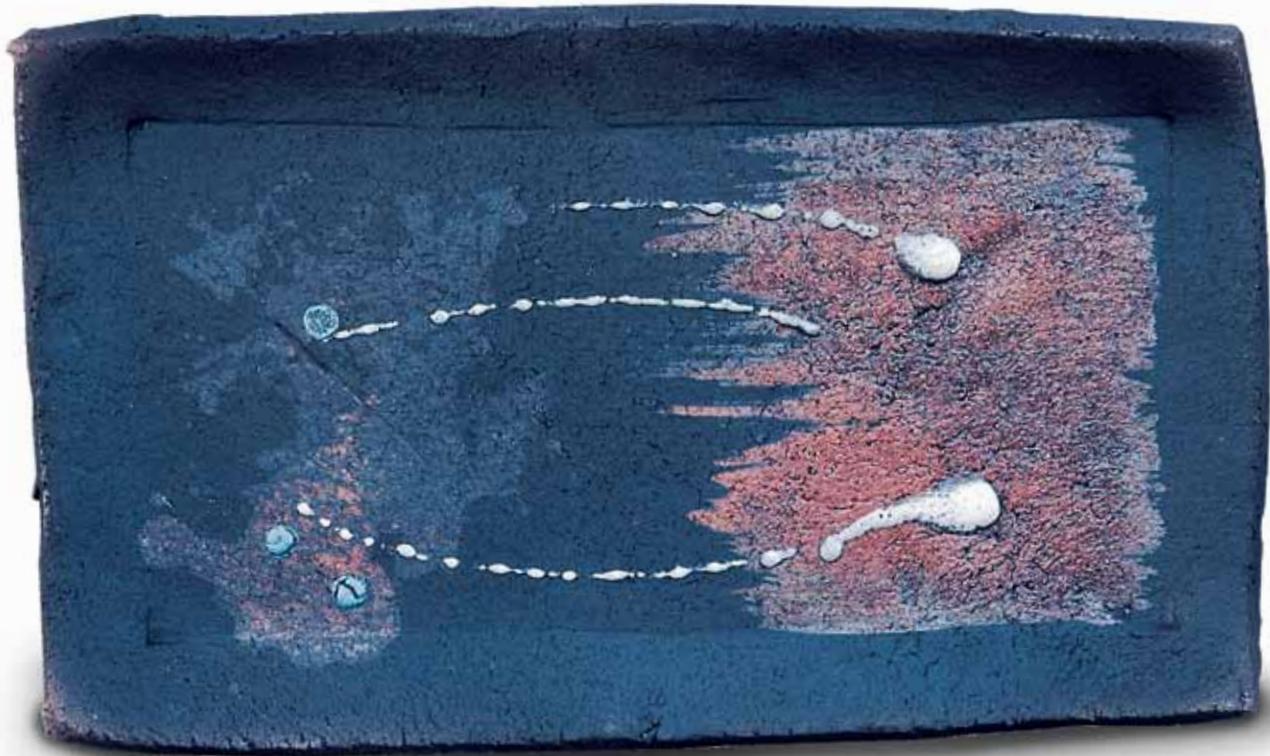
Somewhere along the line, I chose a different way that I like better: A small amount of sawdust is sprinkled on the ground to receive the hot raku object. A flat object (a plate perhaps) is just laid on the sawdust, and after a short interval, more sawdust is sprinkled on top of it. If raking a hollow form, such as a tea bowl, I wave it in the air a few seconds, place it on the sawdust and push sawdust up to the rim on the outside only. After perhaps a minute, more sawdust is sprinkled on, burying the whole object. This wait is necessary, as the inside glaze cools more slowly and must solidify or sawdust will mar its surface.

Western postreduction techniques may well have arisen from a misunderstanding of the traditional Japanese reduction, which was done after the bisque and before glazing. Usually made of a very rough white clay, the bisque-fired tea bowls were brushed with ocher, then placed in a fireclay box along with charcoal, which was then ignited. The whole process is a bit more detailed than what I have written here, but is well described and illustrated in Herb Sanders' book *The World of Japanese Ceramics*.

After I quit having the workshops, I began to look at where I was with raku, what I was doing, how integral the process was to the result. In other words, were the things I was doing possible only with the raku process, or could they be made using any of a number of other methods available to potters?

To me, this is the key. It's not a matter of what materials one works with, what temperature one works at, or whether the firing is done with electricity, gas or wood, but whether the object is one that could only be made with the raku process.

If I wanted to go further, following the more traditional ways that tie in with Zen philosophy, I could ask of this work whether it has the qualities that are so important to adherents of the tea ceremony. While most raku potters in America do not assess their pots in the same manner as a Japanese Zen master, there are aspects of a good ceremonial tea bowl that can apply and are indeed



Raku plate, approximately 9 inches in length, sandy red clay, with clear glaze, borax solution and trailed white glaze, by Hal Riegger.

valuable for the Western potter to understand and assimilate.

The traditional raku tea bowl is handmade from a rough, gritty clay, yet when completed, is pleasant to the touch. A summer tea bowl is shallow and wide, while a winter tea bowl is taller and narrower. For its size, it is thick but not heavy. It is asymmetrical; the rim undulates. There is a front and a back. The base rim (foot) must be so shaped that the bowl is easily picked up by the thumb and two fingers. The bottom inside must have a depression called a cha damari, or tea pool, where the

last few drops of tea will look like rain collecting in a depressed rock (the potter consciously puts the cha damari there, yet it is supposed to look like it just sort of happened). The bowl must be larger at the lower belly to allow room for the whisk. And, finally, the inside must appear larger than the outside!

Once, when discussing these aspects with a Japanese raku potter, I remarked, “You know, is this rationalizing? I wonder if this isn’t all a lot of hogwash.”

To which he replied, “Now you’re getting into Zen.”