

Introduction

A book about movement and mechanisms in metal clay was under way on my desk when bronze clay showed up in the arena. A few years back I was experimenting with making copper and bronze clay but had very limited success in firing them. Chemist Bill Struve of Metal Adventures, Inc., the inventor of BronzClay™, discovered a way to fire base metal clay in an oxygen-reduced environment, and it all became possible. My book was set aside for a while and for a few months I was totally immersed in experimenting with bronze clay.

Because of my fascination with mixed metals, the first thing I tried to do was to combine silver and bronze clay. Soon enough I realized it was not so simple. For one thing, silver clay and bronze clay did not fully sinter in the presence of each other, even if one of them was fired first. This was more obvious in the case of silver, since fired bronze is harder, even if it is not fully sintered. On top of this, when I tried to fire silver clay over fired bronze, in most cases the fired pieces came out irreversibly damaged. The reason, I was told, is that under high temperature, silver, copper, and tin (copper and tin are the elements that make bronze) form an alloy with a very low melting point that flows away from the silver onto the bronze, so it looks as if the silver part had been etched away. That was very disappointing, but it brought me back to my book: since silver clay and bronze clay are best fired separately and connected mechanically, the idea of combining the two could certainly have a major role in a book about movement and mechanisms in metal clay.

Curious as I was as to *why* silver and bronze clay behave the way they do when in the presence or in contact with each other, I decided to focus instead upon the *how*. Since my first experimentations with bronze clay I have discovered ways around the problems I encountered. I have managed to fire silver over bronze and bronze over silver and my solutions are all presented in this book.

The best way to benefit from this book is to do the projects, and to progress through it as one continuous course. New material is introduced with each new project. The book assumes that the reader is familiar with my first book, *The Handbook of Metal Clay: Textures and Forms*, and often refers to it for certain techniques. The same toolkit applies, with extra tools introduced at the beginning of each project. I did my best to avoid repeating information that has already been covered in my first book and in other books about metal clay.

The first project, Collage Earrings, can be regarded as an introduction to working with bronze clay, although by no means is it intended to cover all aspects of this medium. It was written in the early days of bronze clay, with lots of unknowns, uncertainties, and unanswered questions. Following projects that involve bronze clay supply further information about working with it. However, the focus of these projects is on the mechanisms by which silver clay and bronze clay can be combined. Hopefully, the information introduced in these projects will help you tackle the challenges of combining silver and bronze clay.