



Getting Started

So you want to be a potter? No, not Harry Potter! A potter is an artist or craftsperson who makes clay pots, right? True, but potters don't just make flowerpots and stop there. By "pots," a potter might mean

mugs, bowls, plates, casserole dishes, teapots, coffeepots, platters, boxes, goblets—even bathroom sinks! You can even make a dragon out of clay, or an animal-headed Egyptian ceremonial jar. If it's a useful clay object, it's called *functional*; if it's just neat to look at, it's called *decorative*. Flip through the pages of this book, and you'll see some unusual and fun proj-

ects. Before you dive in, though, it's a good idea to understand everything you can about clay. Let's start with the basics.

Where Does Clay Come From?

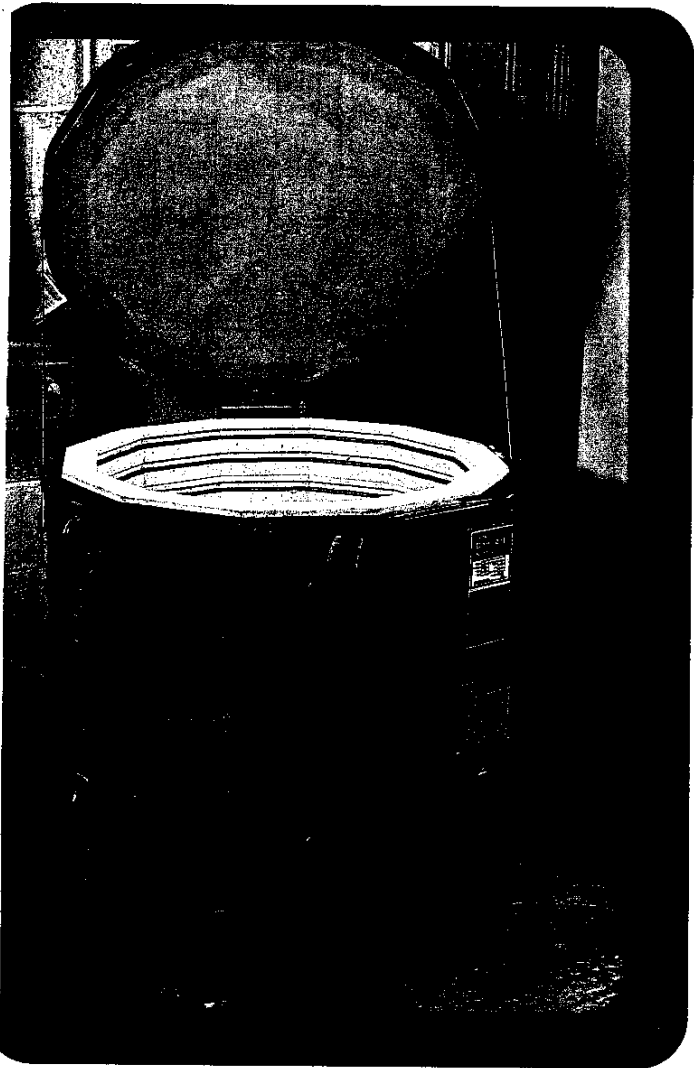
Clay comes from the earth, but it hides under the soil we usually see. All over the surface of our planet is a layer of dirt called topsoil. Topsoil has a lot of rotted leaves and other decayed plant matter in it and usually feels kind of grainy, like sand.

If you walk along an old dirt road, you might see a place where all the topsoil has been scraped away and underneath is some soft, sticky-feeling clay. What you're actually seeing is decomposed rock. Over thousands or perhaps millions of years, the rock mixed with water and eventually softened into clay. Depending on just what kind of rocks are

under the topsoil where you live, the clay might be colored white, or bluish-gray, or even orange. If you pinch off some of the clay, it will bend and stretch without breaking.

You could actually create a pot or figure with some of the clay you found, but that would mean an awful lot of digging! And then you'd need to strain out all the sticks and hard chunks of rocks. Today, instead of spending all their time digging and cleaning, most potters buy their clay in big, plastic bags from a ceramic supply shop. The ingredients in this clay are the same as those of the clay you'd find under the topsoil, but it's been cleaned, so you can use it right away.





When potters heat the clay, they call it *firing*. Clay must get very hot before it gets hard. The oven in your kitchen won't get the clay nearly hot enough. Back before your grandparents were born, people used wood for fuel and burned, or fired, the pots for a long time to get them hot enough. Not only did they have to dig and clean the clay, they had to chop a lot of wood, too! Most potters today use special clay ovens called kilns that run on electricity or gas, and get much hotter than a regular cooking oven.

The Ceramic Process

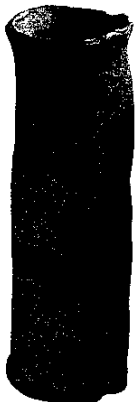
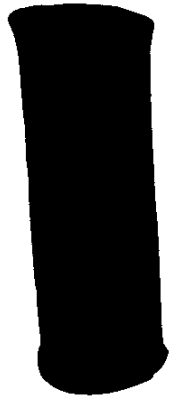
As you might have guessed by now, there's a specific step-by-step process for making things from clay. When the clay is moist and soft, you can make it into many different shapes and change it however you want. If you get tired of working on it, you can always wrap it tightly in plastic and it will stay moist until you want to work on it again.

Once the clay dries out, though, you can't change the shape of it any more. The drier it gets, the more brittle it becomes, and you must be careful not to break it. You can tell how dry the clay is by how it feels and how it looks. As clay dries, it gets lighter in color, and it feels harder. Potters call clay that's completely dry, *bone dry*. Bone-dry clay will be very light in color, and hard and chalky when you touch it.

Any clay creation that hasn't been fired yet is called *greenware*. When the greenware is bone dry, it's time to fire it in the kiln for the first time. This is called the *bisque* firing. It gets the clay hot enough that the silica starts to melt, making the clay hard. The clay pieces are now called *bisque-ware*, and they're ready to be decorated with a special kind of paint called a *glaze*.

How Does Clay Get Hard?

If you've ever made something from real clay before, you know that once the clay dries out it can break very easily. And if you put water in it, it turns back to mush! So how did that mug you drink from get so hard? Clay can only get hard when it's heated to a very high temperature. Inside the clay are many pieces of tiny, sand-like particles called *silica*. Glass is another material that's made of silica. When the silica in the clay gets very hot, it melts, and as it cools, it becomes hard, like glass. Now the clay piece can hold water!



A glaze is a hard, glassy coating that goes over your bisqued work. Glazes are made from powdered glass (silica) and other ingredients that are mixed with water. They're easy to use because they come in jars. Paint them on your bisqueware, or dip the bisqued piece into the glaze. As the glaze dries, it will get powdery looking.

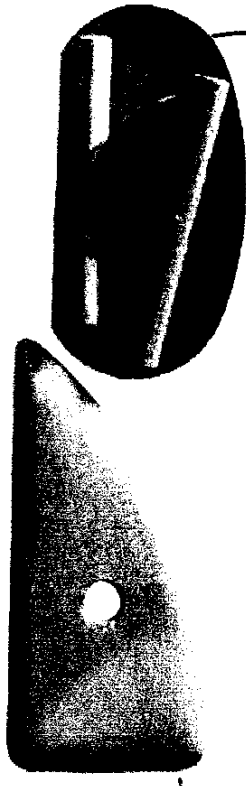
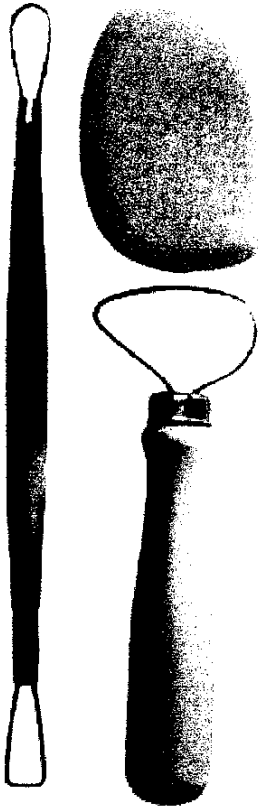
When the bisqueware has been glazed, you're ready to fire it in the kiln one last time (remember that the silica in the glaze needs high heat to turn it glassy looking). These glazed pots are now fired to an even hotter temperature than the bisque firing. As they get very hot, the powdery glazes start to melt and make a hard, smooth, colorful coating on the clay. This second firing in the kiln is called the *glaze firing*. After this firing, cups, bowls, or sculptures you made are now finished. Potters call their finished, glazed creations



ceramics. They're hard and durable, so you can eat or drink from them, or just show off your beautiful pieces to all your friends.

Potter's Sponge (for smoothing, keeping clay moist)

Wire clay Cutter (initial cut)



Metal Scraper
(for smoothing)

- Pin Tool
(for making holes,
drawing, checking
thickness of
clay, making
texture)

Potter's Rib
(for shaping, defining, texture)

Loop Tools
(for shaping,
trimming,
making texture)

Modeling Tool
(for shaping, defining)

Knife
(for cutting clay)

*Other tools to consider:
forks, pencils, fingers 😊,
rolling pins, rulers, hair
dryers, paintbrushes

CERAMICS
TOOLS