

Step 7

The entire section piece, with the pressed wax and sprue system attached, is encased in a larger cylinder of plaster—with part of the plumbing system protruding out the top.

Step 8

The cylinder is placed upside down in a large kiln, and heated with propane to 1,000°F for about 48 hours, which evacuates the wax (hence, the “lost wax” method). This leaves a void inside the cylinder wherever there was wax. The negative plaster imprint imbedded inside the cylinder now has a 1/4" void adjacent to its surface, connected to the voids left by the melted plumbing network. Since this network originally protruded out the top of the cylinder there is now a hole that provides access to all voided spaces inside the cylinder.

Step 9

The cylinders are placed right-side up in a pit and surrounded by sand to re-enforce the molds as the metal is poured in.

Step 10

Bronze ingots are melted in a furnace to about 2,000°F and poured into the hole in the top of the cylinder. The molten metal flows through the plumbing system and fills the 1/4" space against the negative plaster imprint, taking on the positive form. As it cools, the metal maintains this positive form, and so replicates that section of the original sculpture.

Step 11

After cooling, the cylinders are broken open and the raw castings cleaned. The plumbing system—now also replicated in bronze—is cut off to be recycled in the next melt.

Step 12

The individual cast sections are welded together, like pieces of a puzzle, to form the bronze replica of the original clay.

Step 13

All welding lines and other flaws are tooled by skilled artisans to make a seamless bronze sculpture.

Step 14

The final step is the application of patina chemicals—usually to a heated bronze—to get the coloration desired. Finally, a number of coats of wax are applied to seal and protect the finish.

