

Making a Bronze Sculpture

Bronze is the most popular metal for sculptures because of its strength and lack of brittleness. There are many ways to make a bronze sculpture, but the most popular method is called lost wax casting.

There are 4 stages to lost wax casting.

1. Make a wax model that is an exact copy of the final piece.
2. Put clay or plaster around the wax model to make a mold. Make small holes in the mold down to the wax model and fill with wax.
3. Heat the mold until the wax melts out (this is where the name "lost wax" comes from), then cast the mold by pouring liquid bronze into the small holes.
4. Finish the cooled piece by chipping away the mold, filing and buffing the sculpture.

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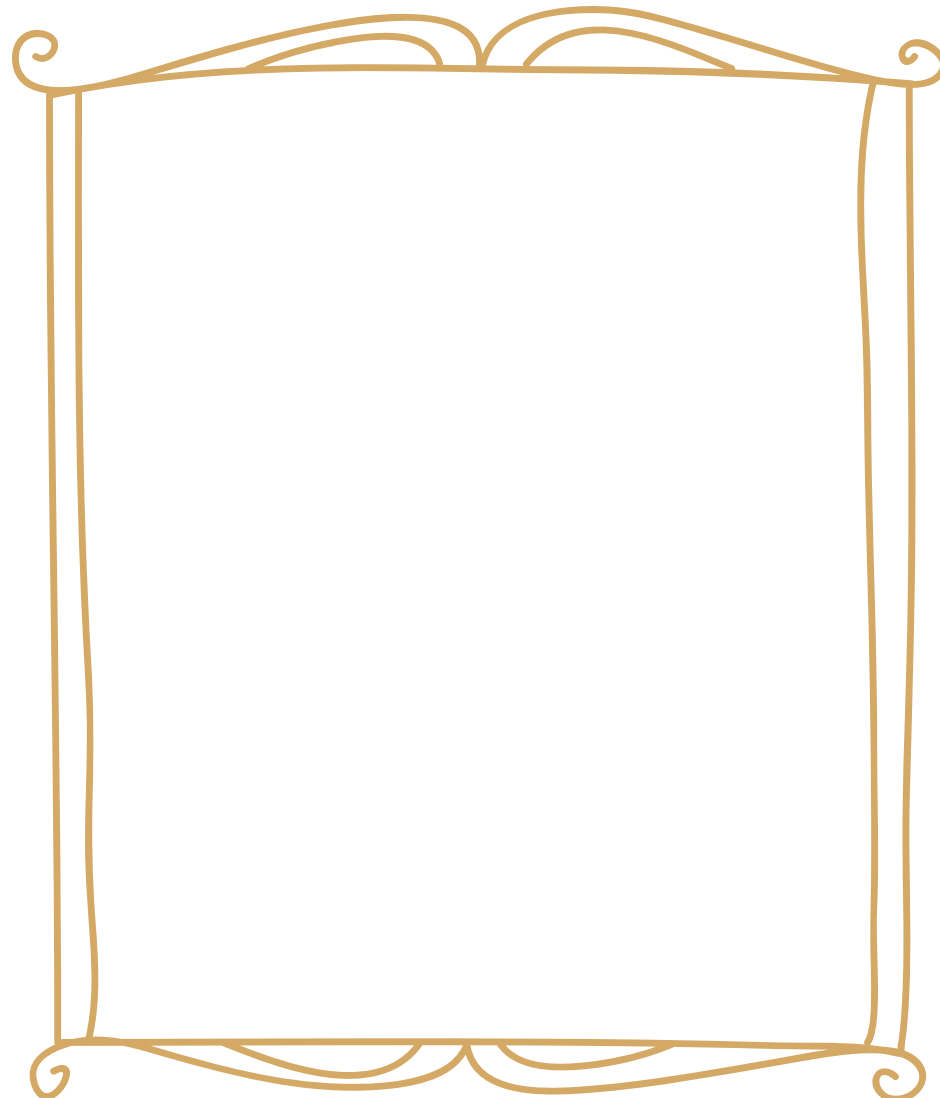
BRONZE SCULPTURES

Sculptural masterpieces of The John and Mable Ringling Museum of Art

Sculptures are three-dimensional forms that you can walk around, look at from all different sides, and sometimes even walk through. They can be very tall or really small and can be made of just about anything, including stone, clay, metal, wood, glass, ice, snow, chocolate, and more! The sculptures in this guide are all made of a type of metal called bronze. John Ringling collected more than fifty bronze sculptures to put in the Museum's Courtyard and Loggia alone!

Have you ever made a sand castle?

Sand castles are sculptures made of sand!



DESIGN YOUR OWN SCULPTURE

Now that you've studied some of the sculptures at The Ringling, design your own sculpture.


Sketch the design here.



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THE JOHN & MABLE RINGLING MUSEUM OF ART
STATE ART MUSEUM OF FLORIDA | FLORIDA STATE UNIVERSITY



Did you know the oils in our hands could damage the artwork?
Please do not touch the art or artifacts.

The Ringling



STANDING TALL

Fully nude and standing over seventeen feet tall, Michelangelo's *David* was a revelation in Renaissance sculpture and remains today the most recognizable statue in the world. In Florence, the statue became an image of republican fortitude, and in Sarasota, centuries later, it has become a symbol of the city's identity as an arts capital. Michelangelo, unlike other artists at the time, cast David not as a haughty prince but as a powerful, muscled young man, choosing to show him in the moments just before the battle. The Ringling *David*, made in bronze from a cast of the marble original, has been the centerpiece of John Ringling's Renaissance-inspired art museum since its founding in the late 1920s.

A WILD RIDE

Who do you think rode in this chariot? Why? This chariot was dedicated to Ceres, the Roman goddess of wheat and grain, who scattered seeds over the earth while driving her chariot through the skies. The name "cereal" comes from the goddess Ceres.

If you had a chariot like this, where would you go? Describe an adventure you might have in your chariot.



Chiurazzi Foundry, Votive Chariot Dedicated to Ceres, 20th Century. Bronze cast from ancient Roman marble original. Bequest of John Ringling, 1936. SN5136

Why are some of the bronze pieces green?

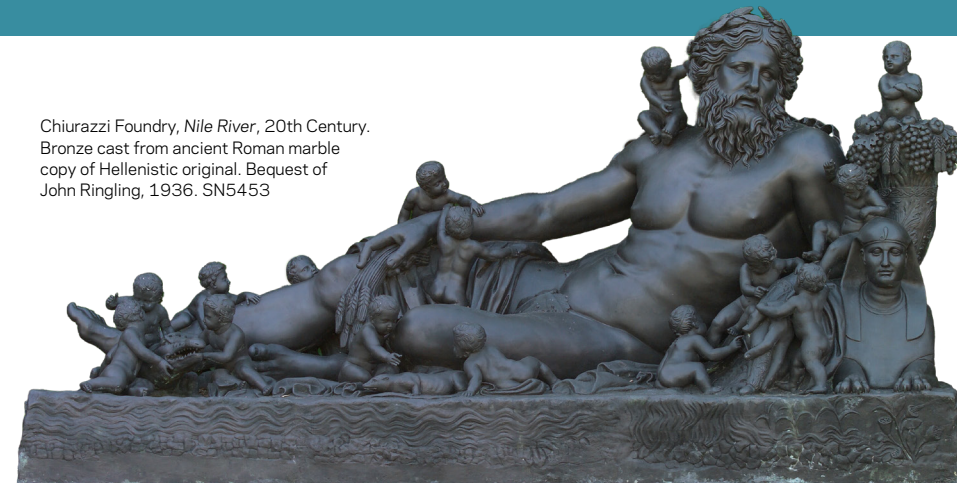
Like most metals, bronze oxidizes over time. This chemical change darkens bronze or turns it green, similar to the way steel rusts. The darker sculptures you see have been cleaned and show the color John Ringling chose when he bought the sculptures. On the other hand, some bronze sculptures that look green were made to look that way on purpose.

WHO AM I?

Sometimes artwork hold **symbols**, objects that stand for something else, and can tell us more about the artwork.

Can you find these symbols?

- A bunch of wheat
- A horn of plenty
- A sphinx
- A crocodile
- 16 babies



Chiurazzi Foundry, Nile River, 20th Century. Bronze cast from ancient Roman marble copy of Hellenistic original. Bequest of John Ringling, 1936. SN5453

WHAT DO THESE SYMBOLS TELL US?

This is a sculpture that represents the Nile River. The wheat and horn of plenty symbolize agriculture and the abundance of food near the Nile. The sphinx represents Egypt. The crocodile represents the river. The 16 babies each represent 1 cubit, an ancient form of measurement that is approximately the distance from the elbow to the tip of the middle finger, or about 18 inches. If you multiply the number of babies by 18 inches you get the amount the Nile overflowed each year before planting time, making the ground fertile with minerals from the river.

Can you find these symbols?

- A horn of plenty
- 2 boys
- A wolf
- An oar



Chiurazzi Foundry, Tiber River, 20th Century. Bronze cast from ancient Roman marble original. Bequest of John Ringling, 1936. SN5454

WHAT DO THESE SYMBOLS TELL US?

This is a sculpture that represents the Tiber River. The oar in the figure's left hand represents sailing, and the horn of plenty in his right symbolizes agriculture and the abundance of food near the river. The wolf and 2 boys represent the famous legend of the founding of a major city in Italy. According to legend the twin boys, Romulus and Remus, were set adrift in a basket by a wicked uncle soon after they were born. The basket floated to shore where they were rescued and given milk by a wolf. Later a shepherd adopted them and they grew to be strong, healthy men. Romulus eventually founded a city near the Tiber and named it after himself.

What is the name of this famous city?

There are sculptures everywhere on the Ringling Estate!

How many can you find?

How do they compare to what you've studied here?
