

Approaches to Three Dimensions in Sculpture

- Sculpture made to be seen from many sides is known as **freestanding, or sculpture in the round**
- Relief is a type of sculpture specifically designed for viewing from one side- very little depth (**bas-relief**) or a great deal (**high relief**)

Introduction-Sculpture



Sculpture can be made from any material: glass, wax, ice, plastic, fiber, food, trash, etc.

Sculptures exist in three dimensions and occupy physical space

They invite us to interact with them: by looking, walking round them, and/or entering them

Freestanding Sculpture

- **Sculpture that invites us to examine a work on all sides is known as freestanding, or sculpture in the round**
- **Some freestanding sculpture is not intended to be experienced from every point of view**
- **The location of the sculpture sometimes determines the vantage point from which it can be viewed-an apse of a church?, outdoors?**



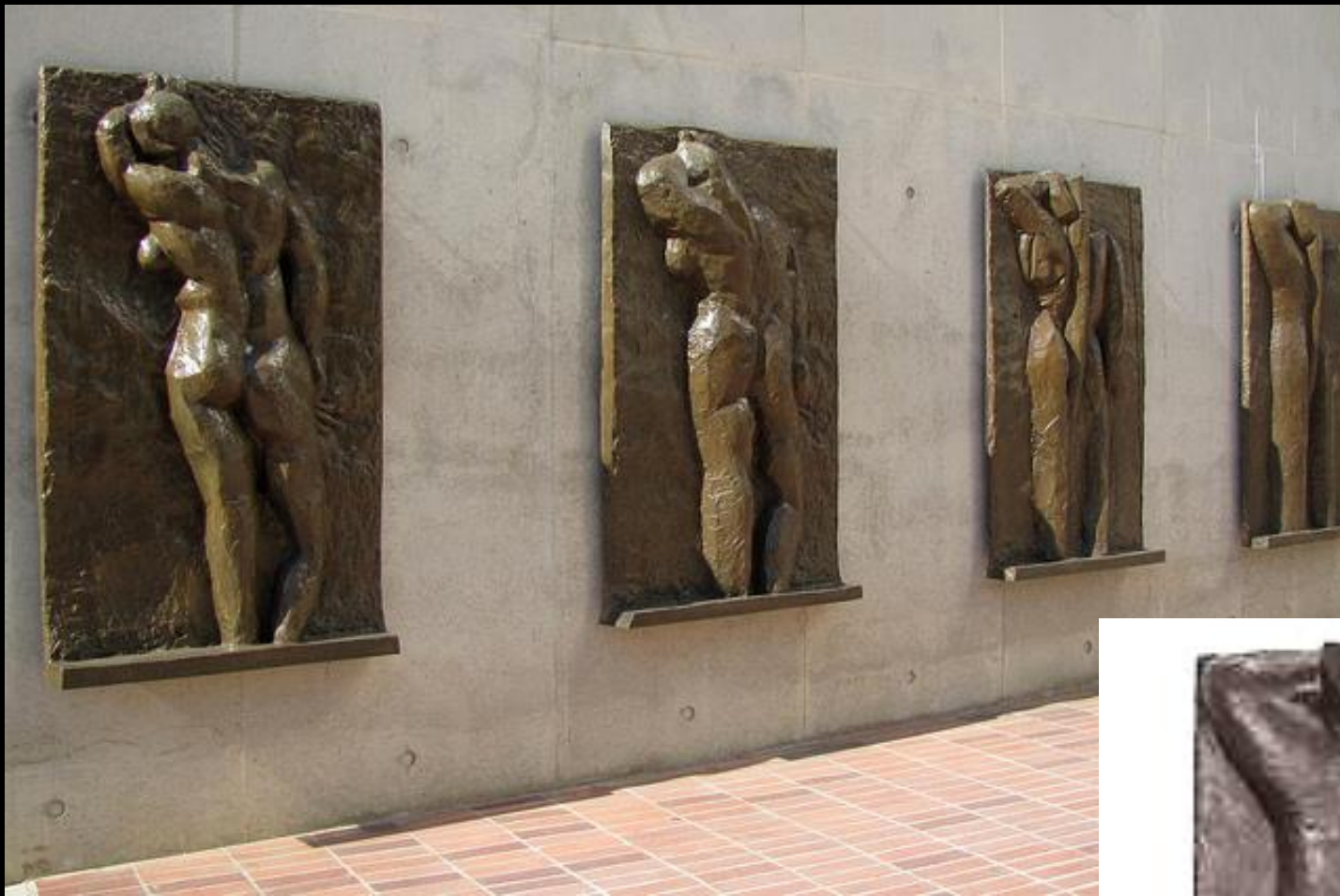
Giambologna, *Rape of a Sabine*, 1583. Marble, 13'6" high. Loggia dei Lanzi, Piazza della Signoria, Florence, Italy

Bas-Relief and High Relief

- **In bas-relief the sculptor's marks are shallow**
- **When a sculptor chooses to incise the surface more deeply, he or she is working in high relief**



Dying Lioness, limestone relief from the North Palace of Ashurbanipal, Nineveh, Assyrian period, c. 650 BCE. British Museum, London, England



Henri Matisse *The Backs, I-IV*
Cast bronze, 1910-1930



Carving

- **The most ancient works of art that still exist were made using subtractive methods of sculpture**
- **Most of these were worked by chipping, carving, sanding, and polishing**



Michelangelo,
Prisoner, known
as the *Awakening
Slave*, 1519–20.
Marble, 8'9 $\frac{1}{8}$ "
high. Accademia,
Florence, Italy



Michelangelo, Tomb of Julius II, detail of Moses, 1513–
16. Marble, 7'8 $\frac{1}{2}$ " high. San Pietro in Vincoli, Rome,
Italy

Michelangelo

- Used an unconventional sculpting technique to “release” the figure, as he saw it, from the stone
 - ◆ Rather than remove stone progressively from all sides, as most sculptors do, Michelangelo began on one side of the stone and sculpted through to the other side
 - ◆ He felt that he was freeing the figure from the stone in which it had been trapped





Modeling

- Modeling in clay or wax (for example) is an additive process; the artist builds up the work by adding material
- Because such materials as clay often cannot support their own weight, sometimes an artist will employ a skeletal structure, called an armature, to which the clay will be added; the armature will then later be removed (or burned away) when the work is dry
- Because the process produces a very dry and hard material, many works from antiquity made from clay still exist

China's Terracotta Army

The armies of Qin Shi Huang, the first emperor of China. Buried with the emperor in 210 BCE. Main purpose to protect the emperor in his afterlife. At last count, about 8,000 soldiers, 130 chariots with 520 horses and 150 cavalry horses. Other terracotta non-military figures were found in other pits, including officials, acrobats, strongmen and musicians.





Casting

Involves adding a liquid or pliable material to a mold

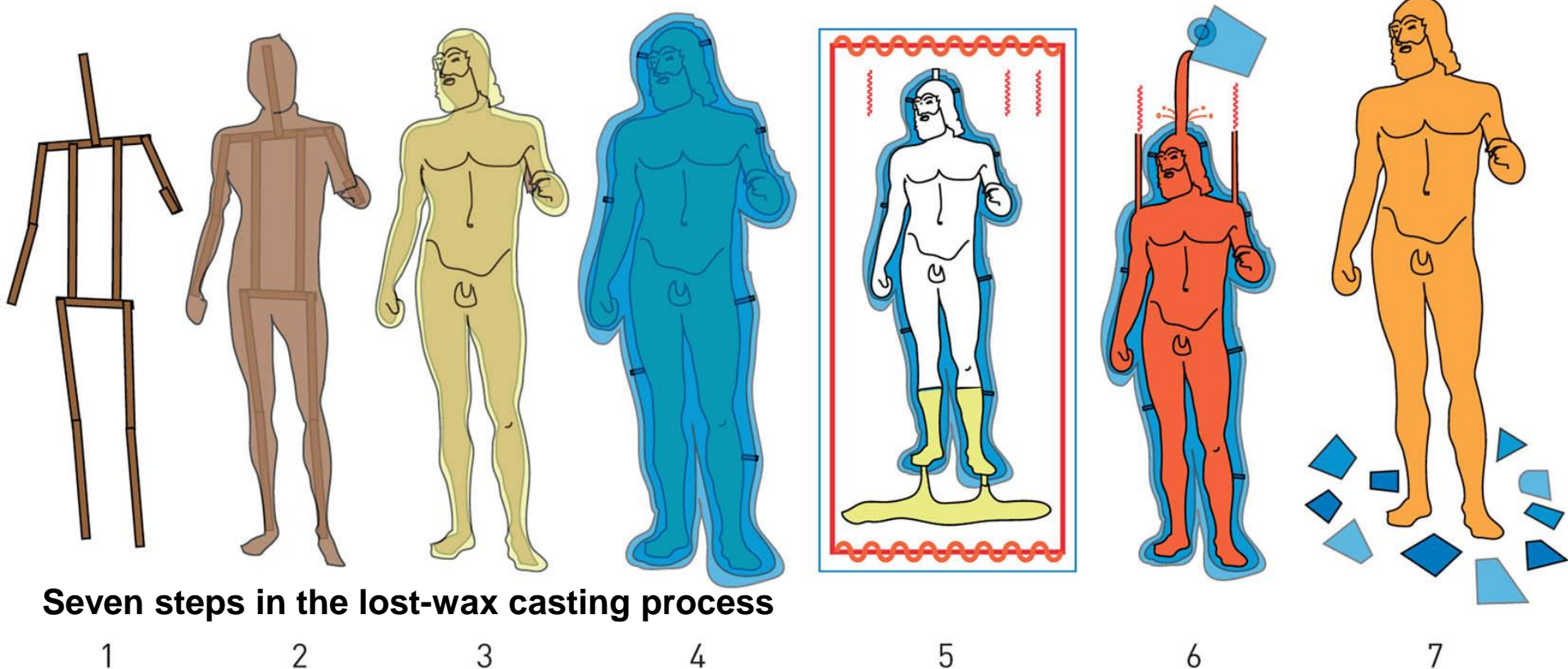
**The first step in casting is to make a model of the final piece.
This is used to make a mold**

A casting liquid (often molten metal, but other materials such as clay, plaster, acrylic polymers, or glass are also used) is poured into the mold

When it hardens, the result is a detailed replica of the original



2.152 *Riace Warrior A*, c. 450 BCE.
Bronze, 6'6" high. National Museum,
Reggio Calabria, Italy



Seven steps in the lost-wax casting process

Riace Warrior A

- Great attention to detail and was made at a time when the Greeks emphasized the perfection of the human body
- <http://www.youtube.com/watch?v=6-TxIKt2cUE>
- Bronze casting



Earthworks

- **Prehistoric artists used the surface of the Earth itself as material: this was additive sculpture on a very large scale**
- **Because of their enormous size, earthwork projects need the collaboration of many artists and workers**
- **Many contemporary artists believe that earthworks should represent a harmony between nature and humanity**



Great Serpent Mound, c. 800 BCE–100 CE, 1330 x 3', Locust Grove, Adams County, Ohio



Great Serpent Mound

- As can be readily seen from the air, it resembles a snake with its mouth open, ingesting an egg
- The head of the serpent and the egg are aligned to the position of the setting sun on the summer solstice, suggesting that it was used in making solar observations
- The original artists heaped piles of earth to “sculpt” this work onto the Ohio landscape

Construction

- **Methods for constructed sculpture have proliferated with the growth of standardized, engineered materials, such as sheet metals and plastics**
- **The artists of the Constructivist movement in the Soviet Union created an entire art movement based on sculptural construction techniques**
 - ◆ **Constructivists considered art to be a scientific investigation of the social needs of the time**



Naum Gabo,
Constructed Head No. 2 1916

Investigates the sense of space and form implied by flat planes, in contrast to the solid mass of conventional sculpture

Gabo is more interested in showing its interior construction than the exterior surface

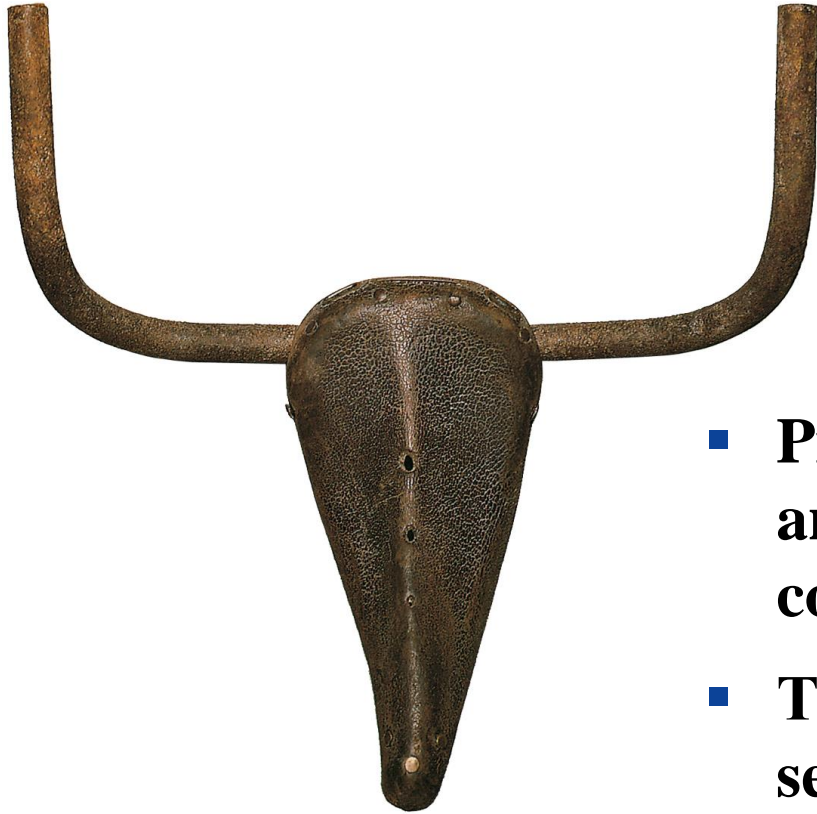
He has welded the intersecting planes of metal together more as if he were a mechanic or engineer

Readymades

- **Artists in the early twentieth century innovated the use of artifacts that already exist as raw materials**
- **They rebelled against the historical notion that artworks are appreciated for the effort and skill that goes into making them**



2.158 Pablo Picasso, *Bull's Head*, 1942. Assemblage of bicycle seat and handlebars, 13¼ x 17⅞ x 7½". Musée Picasso, Paris, France



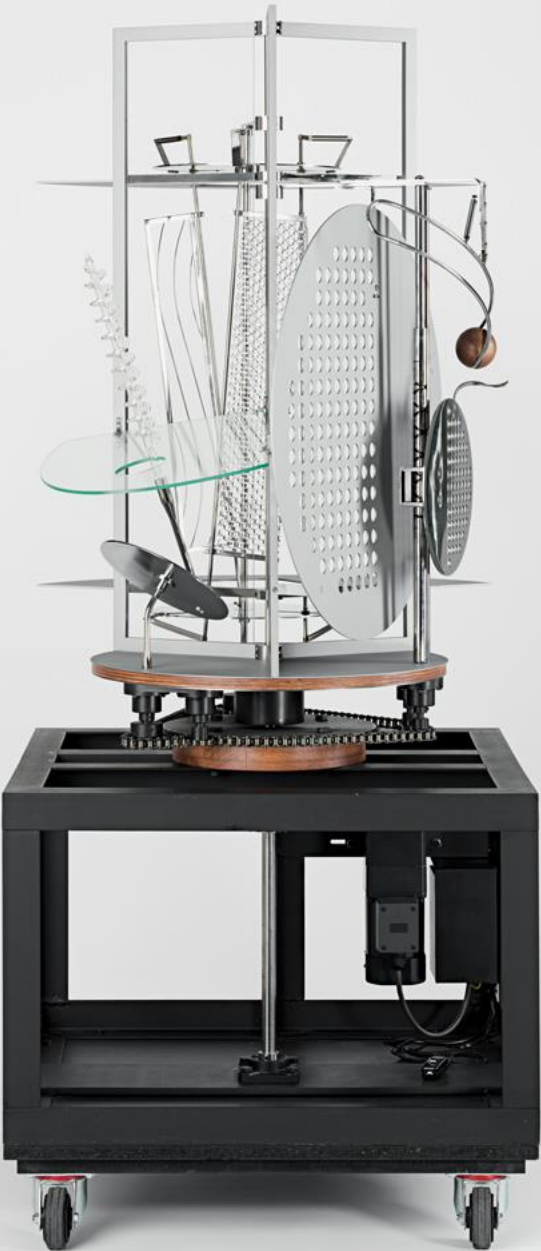
Pablo Picasso,
Bull's Head

- **Picasso once took the handlebars and the seat of a bicycle and combined them**
- **The artist's intent was both a serious and a humorous attempt to redefine art**

Light and Kinetic Sculpture

- **Sculptors who work with movement and light express their ideas in ways that would not have been possible just a century or two before**
- **These moving and lighted sculptural works, like those of the Constructivists, rely on mechanical engineering as well as the creative input of the artist**

László Moholy-Nagy, *Light Prop for an Electric Stage*, 1929–30. Exhibition replica, constructed 2006, through the courtesy of Hattula Moholy-Nagy. Metal, plastics, glass, paint, and wood, with electric motor, 59½ x 27⅝ x 27⅝". Harvard Art Museums, Busch-Reisinger Museum, Cambridge, Massachusetts



- Created as a stage lighting device, *Light Prop* eventually became the main character in a film by Moholy-Nagy
- The work has a motor that moves a series of perforated discs so that they cross in front of the lighting unit
- This creates a constantly changing sculptural object, and the changes in lighting influences the environment
- Is it art, toy, device-what are your thoughts?
- The Bauhaus, where Moholy had worked until 1928, was a hotbed of innovation in stage design and costume design. There was a lot of interest in abstract plays, in electrical lighting devices, in rotating stages. It's a very rich history of experimentation, and Moholy is at the center of it, and the Light Prop is a key example of that commitment.
- <https://www.youtube.com/watch?v=nVnF9A3azSA>
- <https://www.youtube.com/watch?v=e0x730uP2yI>

Conclusion

- **Sculpture is art that occupies and defines three-dimensional space**
- **Sculpture can be either freestanding or carved in relief**
- **All sculptural processes and methods can be classified as either additive or subtractive**
- **In the last hundred years, sculpture has changed to reflect our new and complex modern world**
- **Some sculptures—readymades—have simply been chosen, while some installations immerse us in a new sensory environment**