

3-Dimensional Art-Form, Mass, Volume & Texture

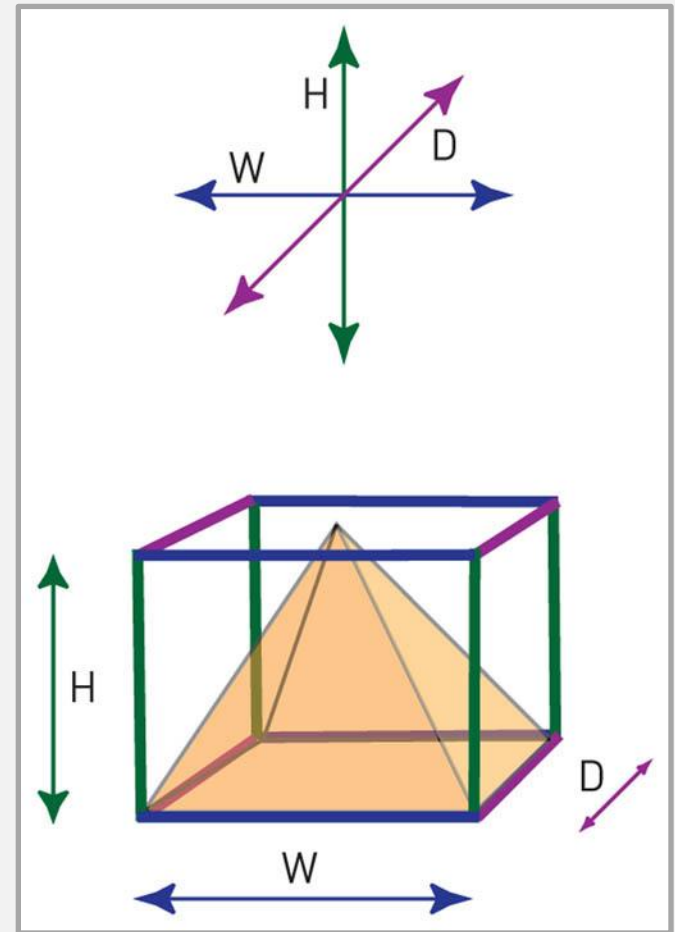
- ◆ Possess four of the visual elements:

- ◆ **Form**

- ◆ **Volume**

- ◆ **Mass**

- ◆ **Texture**



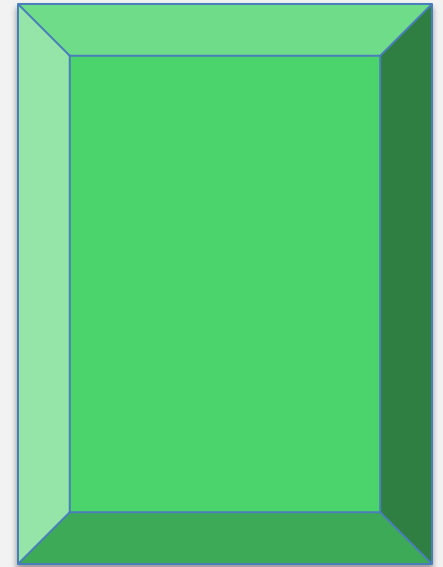
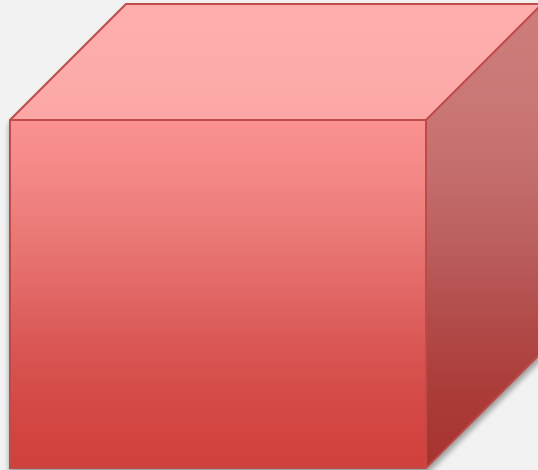
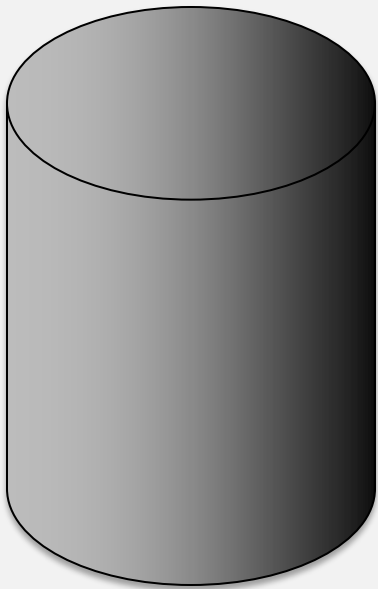
Three dimensions: height, width, and depth

Form

- Shapes are flat; **forms are three-dimensional**
- **Scale** refers to the size of an object
- Forms have two fundamental attributes and elements:
Volume and Mass
 - ◆ **Volume is the amount of space a form occupies**
 - ◆ **Mass is the expression of solidity**

Geometric Form

- **Regular forms, readily expressible in words or numbers**
 - ◆ **Cubes, spheres, cylinders, cones, and pyramids are simple examples**





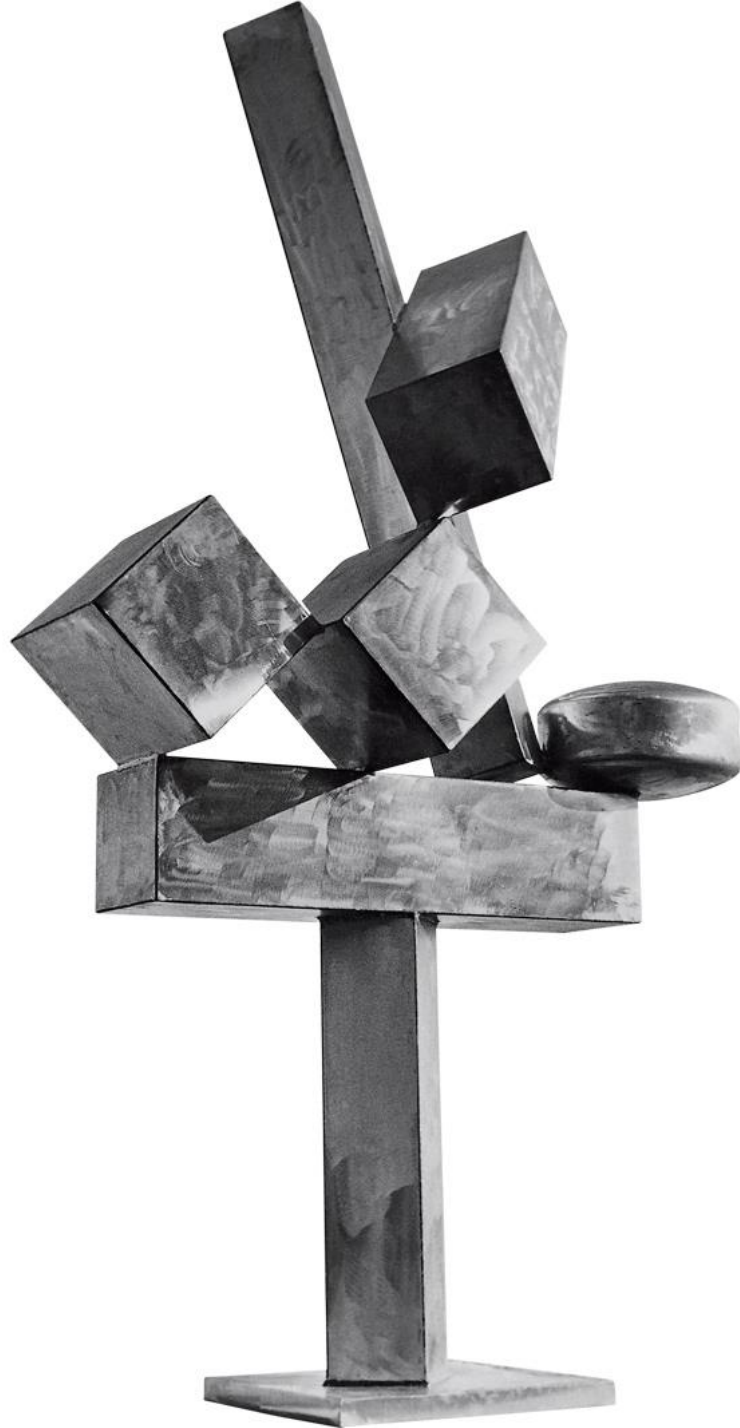
Great Pyramid of Khufu, c. 2560 BCE, Giza, Egypt



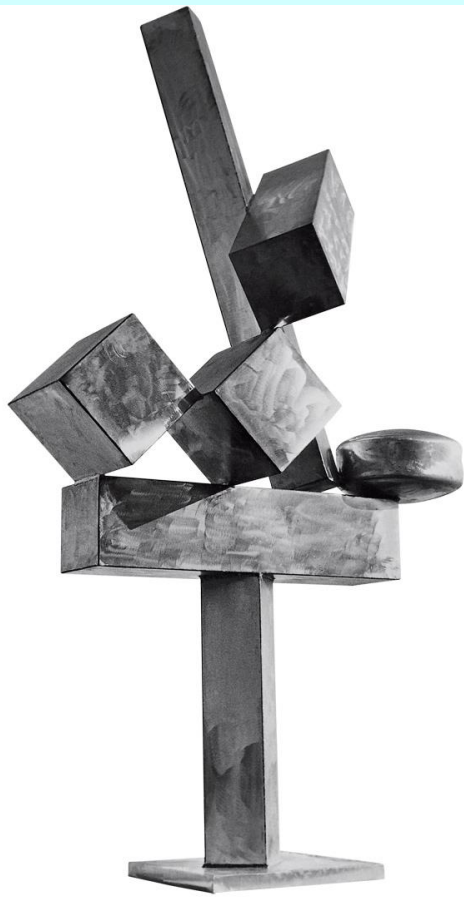
Great Pyramid of Khufu

Geometric Form

- Regulated geometric form
- A monument to the engineering/construction skills of Egyptians
 - ◆ Base of Khufu's pyramid is level to within less than an inch
 - ◆ Greatest difference in the length of the sides is $1\frac{3}{4}$ "
 - ◆ Originally encased in fine white limestone
- Egyptian art and architecture exhibit carefully ordered and controlled characteristics and artists were governed by a canon, or set of rules **THAT LASTED FOR 3,000 YEARS**
- <https://www.youtube.com/watch?v=Cv6tuzHUuuk> Bangles video



David Smith, *Cubi XIX*, 1964.
Stainless steel, 113 $\frac{1}{4}$ x 21 $\frac{5}{8}$ x 20 $\frac{5}{8}$ "



David Smith,
Cubi XIX

- **Combines geometric forms in angular relationships**
- **Diagonal angles imply movement**
 - ◆ **Smith learned welding in an automobile factory and became expert while fabricating tanks of thick armor plate during World War II**



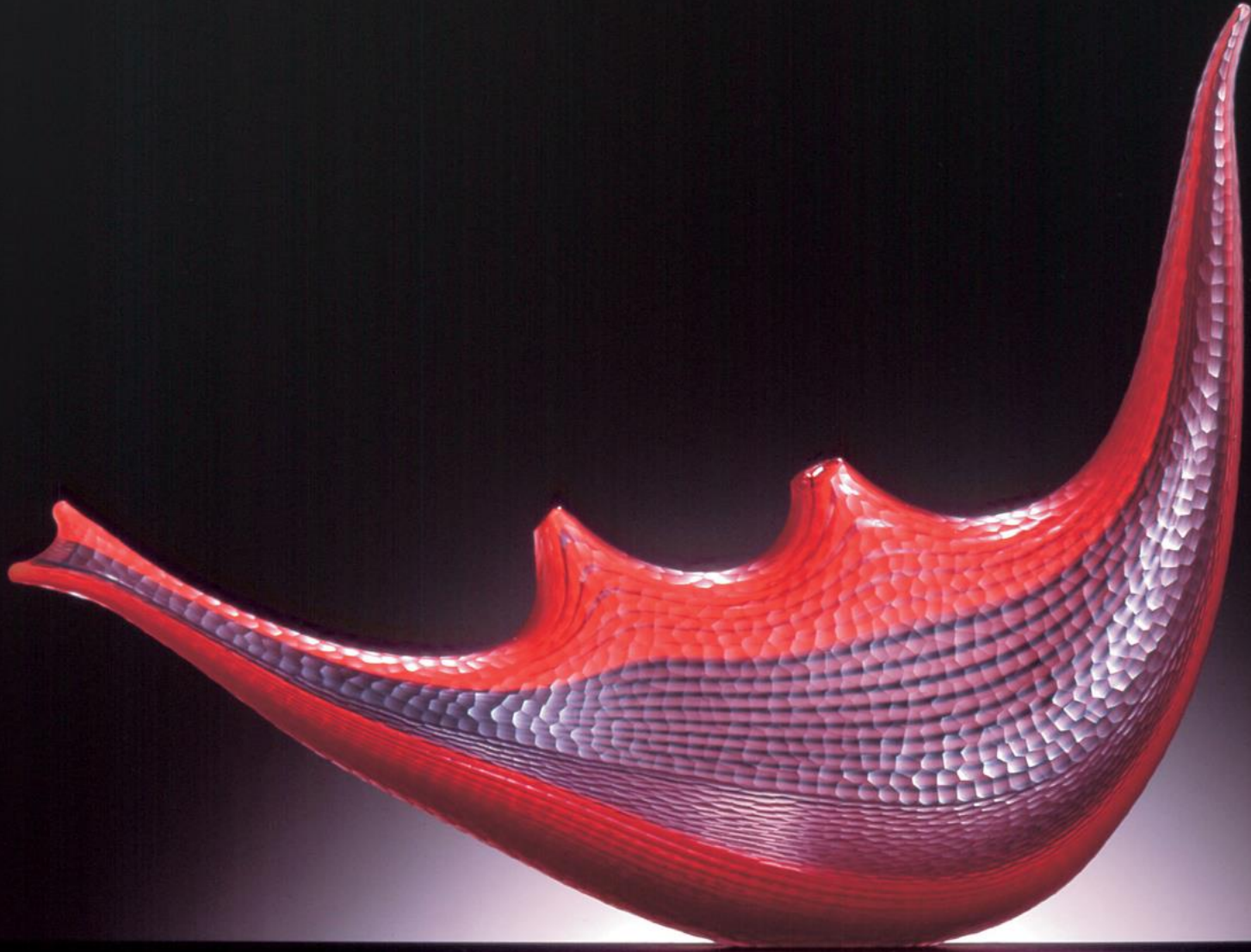
Nancy Rubins. *Pleasure Point*. 2006.
304 x 637 x 288 in.

- **Organic forms are derived from living things**
- **Irregular and unpredictable**

Organic Form



Barbara Hepworth. *Two Figures*. 1947–48.
38 x 17 in.



Lino Tagliapietra, *Batman*, 1998. Glass, 11½ x 15½ x 3½"



Lino Tagliapietra, *Batman*

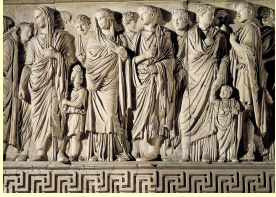
- Artist uses a form that is lively and organic
- The natural energy of light is captured in the glowing transparency of the glass
- Here the media (glass) works in combination with the form and the message (As opposed to the other works seen previously)

Form in Relief and in the Round

- **A relief is a work in which forms project from a flat surface –bas relief**
- **It is designed to be viewed from one side only**
- **A form in the round can be seen from all sides**



1.34 Imperial Procession, from the Ara Pacis Augustae, 13 BCE. Marble altar. Museo dell'Ara Pacis, Rome, Italy



Imperial Procession, from the Ara Pacis Augustae

- **The unknown artist uses the depth of the carvings to suggest that some areas of the composition are farther away from us than others**
 - ◆ **The figures in the foreground are deeply carved (in high relief)**
 - ◆ **The figures behind those in the foreground are also carved in relief, but not quite so deeply**
 - ◆ **The artist suggests even greater depth by using a third group of figures who are carved in shallow relief**

Stela with supernatural scene

**Done in bas-relief
(low relief)**

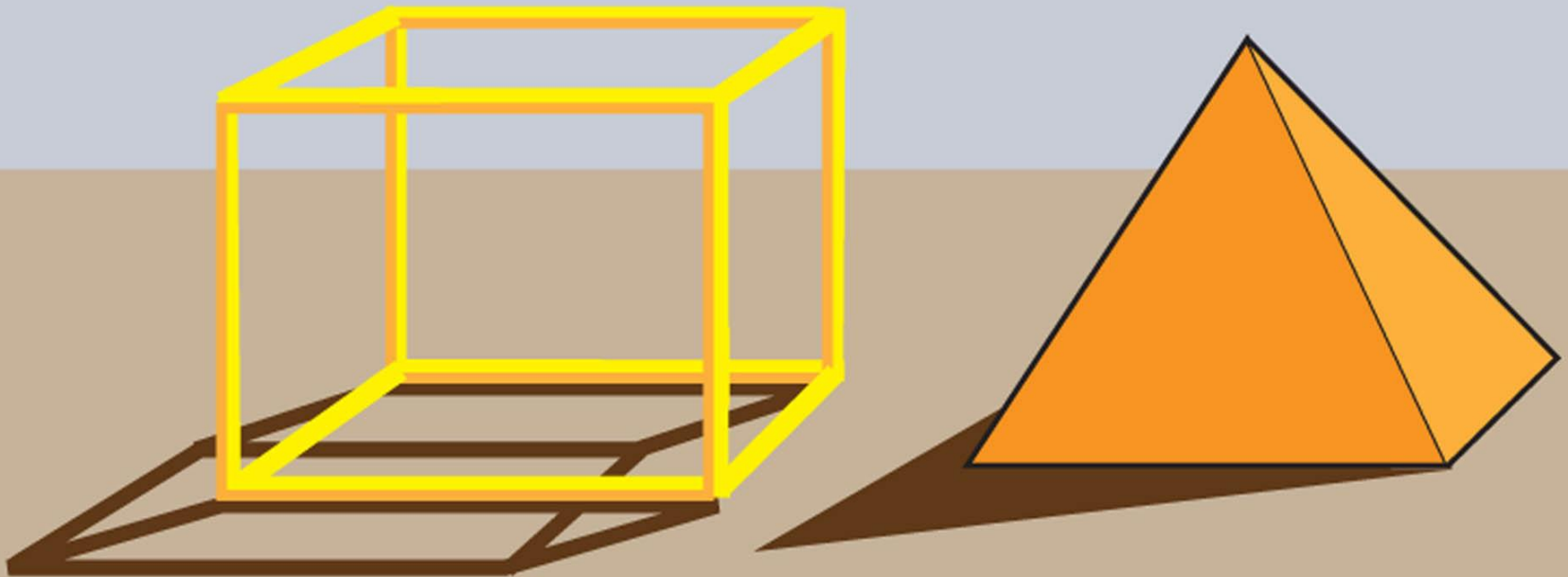
**Stela: upright stone
slab decorated with
relief carvings**



Stela with supernatural scene,
Mexico or Guatemala, 761 CE.
Limestone, Fine Arts Museums of
San Francisco

Volume

- **Volume is the amount of space occupied by an object**
- **Enclosed space with materials that are not completely solid is an an open volume**
- **Architectural forms usually enclose a volume of interior space to be used for living or working**





1.37a Ralph Helmick and Stuart Schechter, *Ghostwriter*, 1994. Cast metal/stainless cable, 36 x 8 x 10'. Evanston Public Library, Illinois



1.37b Detail of *Ghostwriter*



Ralph Helmick and Stuart Schechter, *Ghostwriter*

- **An open volume that, when looked at as a whole, creates the image of a large human head**
- **Made of carefully suspended pieces of metal**
- **In the stairwell where the piece hangs, the empty space and the “head” are not distinct or separate, but the shape is nonetheless implied**



Eduardo Chillida *Eulogy to the Horizon*
1989, Spain Reinforced concrete



Louise Bourgeois, *Maman*, 1999 (cast 2001). Bronze, stainless steel, and marble, 29'4 $\frac{3}{8}$ " x 32'9 $\frac{1}{8}$ " x 38'1". Guggenheim Museum, Bilbao, Spain

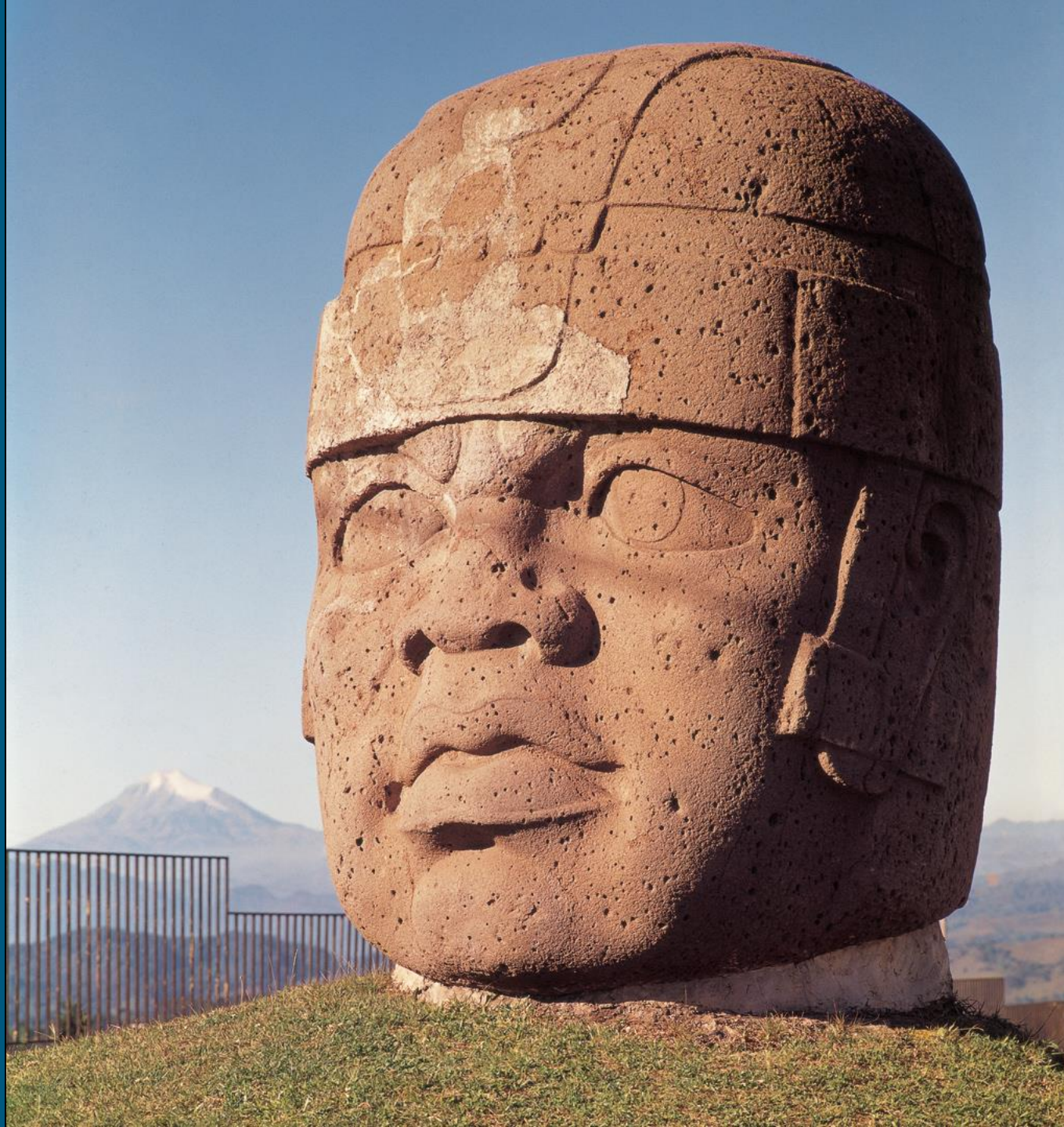


Louise Bourgeois, *Maman*

- Means “Momma” in French-The ultimate spider mother here
- The sculpture stands beside the Guggenheim Museum, Bilbao. The museum’s apparently solid mass is contrasted with the spindly form and open volume of *Maman*
- The subtle variations of angle in the legs imply movement
- Even though this spider is made of bronze, the effect is one of lightness
- Bourgeois wants to suggest both the tenderness and the fierce protectiveness of motherhood

MASS

- **Mass suggests that something is solid and occupies space**
- **Our perception of mass is derived from our imagination, our previous experience with smaller objects, and our understanding of the forces of nature**
- **Mass can suggest weight in a three-dimensional object but can also be portrayed two-dimensionally**
- **Mass does not necessarily imply heaviness, only that a volume is solid and occupies space**



Colossal Head,
Olmec, 1500–1300 BCE. Basalt.
Museo de Antropología,
Veracruz, Mexico



Colossal Olmec Heads Mass and Power

- The monumental quality of some artworks is directly related to their mass
- The sheer size of the work was almost certainly intended to impress and overwhelm
- At La Venta, Mexico, three heads were positioned in a “processional arrangement”
- Mass also imparts a spiritual impact
- Size suggests the power of a mighty ruler or an important ancestor



1.42 Marisol (Escobar), *Father Damien*, 1969. Bronze, State Capitol Building, Honolulu, Hawaii

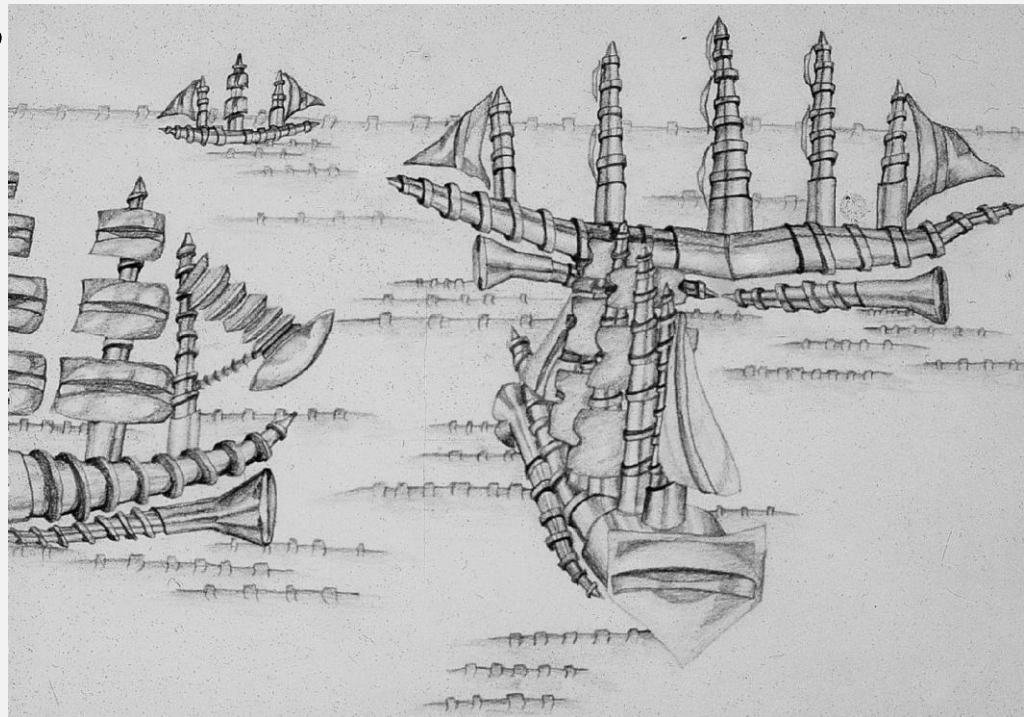
Marisol (Escobar), *Father Damien*

- **Father Damien was a Catholic missionary who supervised a leper colony on the Hawaiian island of Molokai during the nineteenth century**
- **Steadfast compassion is suggested by the foursquare mass of Marisol's work**
- **The stout form communicates stability and determination**
- **Conveys inner resolve of the man and his religion**
- **Do you think it is a flattering portrayal?**
- **www.youtube.com/watch?v=688rDQhWA2I**
- **Father Damien about 4.5-6 min**



TEXTURE

- Texture is the tactile sensation we experience when we physically encounter a three-dimensional form yet can be conveyed two-dimensionally
- When we think of texture, we mostly rely on the impressions we receive from our hands
- When we see the work we can imagine how its texture feels





Méret Oppenheim, *Object*, 1936. Fur-covered cup, saucer, and spoon, $2\frac{7}{8}$ " high. MOMA, New York



Mériet Oppenheim, *Object*

- **A subversive texture contradicts our previous tactile experience**
- **Artists and designers use the contradictions and contrasts of subversive texture to invite viewers to reconsider their preconceptions about the world around them**
- **Mériet Oppenheim (1913–85) used texture to contradict the conscious logical experiences of viewers**
- **The artist counts on our tactile memory to conflict with the actual experience**

Conclusion

- **Three-dimensional art is expressed in height, width, and depth**
- **Forms can be geometric or organic**
- **Volume is the amount of space occupied by the form there or not**
- **Mass is the impression that the volume is solid and occupies space**
- **The surface of the form can be described in terms of its texture**