

# Lesson 2 Sculpture

What is it? Where do we find it? What is it made from? How is it done?

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## Goals:

- To recognize sculpture as a distinct form of art.
  - To encourage attention to the sculpture students see in their daily lives and communities and to foster curiosity and more insightful understanding of our cultural and social history.
  - To appreciate uses of sculpture in our society today.
  - To understand traditional methods of making sculpture, which was the process Saint-Gaudens used in his work.
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## Objectives:

- Students will be challenged by a teacher-led discussion about sculpture.
  - Students will learn sculpture terms and will identify and define different types of sculpture.
  - Students will work with clay to model their own design using the relief process.
  - Students will experience the art process of drawing their own frieze.
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## Materials to be provided by the teacher:

- Write the Saint-Gaudens web site on the board for illustrations of Saint-Gaudens' work online: [www.nps.gov/saga](http://www.nps.gov/saga)
  - **Images of Saint-Gaudens sculpture** (these appear at the end of this lesson)
  - Copies for each student of the "Let's Look at Sculpture" vocabulary worksheet
  - Copies for each student of the word search "For Puzzlers"
  - 1 to 2 lbs. of clay for each student for the hands-on relief activity
  - Copies for each student of "Draw Your Own Frieze" worksheet
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## Instructional Strategies:

- 1) "Discussion Guide about Sculpture:" Use this to have students think about the different places they see sculpture and its relevance in their own lives. Use images to demonstrate different types of sculpture. Click on the words in blue to link to downloadable images for DVD use in the classroom.
- 2) Bas-Relief Activity: A sculpture activity for hands-on learning.
- 3) "Let's Look at Sculpture" Homework Activity: Have students list and/or draw examples of sculpture they see at home or in their community, etc. Ask them to write a brief description of the sculpture (shape, dimensions, what or whom it represents, why it was made, etc.).
- 4) "Puzzlers" Homework Activity: Have students do the word search to reinforce vocabulary.
- 5) "Draw Your Own Frieze" worksheet: Review the definition of a frieze using Saint-Gaudens' Shaw Memorial as an example. Have students draw their own frieze.

## Discussion Guide about Sculpture

Write the vocabulary words on the board either before or during your discussion.  
Use images to illustrate the discussion.

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### 1) Begin the discussion by asking students some general questions:

- a. Each of you may have a piece of sculpture on you right now. Do you?
    - i. Answers may include: earrings, pendants, belt buckles, and especially coins we frequently forget that coins are considered pieces of relief sculpture.
    - ii. Look at a coin and see how the images are raised.
  - b) Where in your home or community can you find sculpture?
    - i. Answers may include: monuments, a fountain on the town common, gravestones in a cemetery, decorations on buildings, medals, sports trophies, figurines, garden sculpture, weathervanes, etc.
  - c) What are some materials sculpture can be made out of?
    - i. Answers may include: stone, wood, clay, plaster, plastic, metals (usually bronze), fabric (soft sculpture), glass, found objects, paper, play dough, even ice and snow- so each of you has probably been a sculptor!
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### 2) Explain the concept of traditional sculpture to the students:

There are a great variety of places we may see sculpture and it may be many sizes or made from a variety of materials.

Regardless of size or location, **TRADITIONAL** sculpture occurs in two forms:

- a. sculpture in the round
- b. relief

Augustus Saint-Gaudens worked in the traditional method of creating sculpture. Let's look at some examples of his work. (begin showing images)

#### ❖ Sherman Monument, 1903 (1)

- Gilded bronze (covered with gold leaf)
- Located on 5<sup>th</sup> Avenue in New York City
- Shows Civil War leader General Sherman on horseback led by figure of "Victory"
- Illustrates sculpture in the round.

#### ➤ Sculpture in the round is:

- free-standing or three dimensional- so it has height, width, and depth
- finished on all sides- so we can walk around it and look at it from every angle

#### ❖ Augusta Saint- Gaudens, 1905-1907 (2)

- Bronze
- This is the only portrait that Saint-Gaudens modeled of his wife and one of the last pieces he worked on before his death.
- Illustrates relief sculpture
- How do we know it is a portrait?

#### ➤ Relief sculpture is:

- two dimensional- it has been defined as a "drawing in clay"

- the hardest type of sculpture to do
- meant to be seen from the front only.
- where there is an image raised from the background- things like coins or medals

#### ❖ The Shaw Memorial, 1884-1897 (3)

- Bronze
- The original is located on the Boston Common
- Illustrates relief sculpture, in which the figures are attached to a background
- This is also a frieze, a procession of figures.

#### ➤ A frieze is:

- when several figures in a relief sculpture form a procession.

#### ❖ Abraham Lincoln, 1884-1887 (4)

- Bronze
- This type of sculpture illustrates a bust.
- It is also a portrait.
- How do we know it is a portrait?

#### ➤ Subject Matter is often guided by how a sculpture will be used.

#### ➤ Representational sculpture is:

- Realistic and portrays a person, place, or event without distortion or stylization.

#### ➤ A portrait is:

- A real image of a person
- A popular image of a person

#### ➤ A bust is:

- A three-dimensional portrait usually from head to shoulders.

#### ❖ “Victory” as part of the Sherman Monument, 1903 (5)

- Gilded bronze
- The monument is sculpture in the round
- The figure of Victory illustrates an allegory. She represents the success of General Sherman.

#### ➤ An allegory is:

- A human-looking figure which is used to suggest an idea, emotion, or attribute.
- Ask students to think about Superman: he isn't real, but he looks like a real person and he represents enormous strength and forces of good. He is an example of an allegory.
- The Statue of Liberty is an allegory. Ask students to think about what she represents.....freedom, hope, the future, possibility, etc.
- Figures of gods and goddesses from mythology (Greek and Roman legends) are also often used by sculptors to represent an idea or attribute.

#### ❖ Sculpture Tools (6)

- The best tools for modeling clay are the fingers.
- You can use wire tool #32 to scrape away clay or tools #27 or #31 to smooth the clay.
- Calipers #26 measure dimensions.

#### ➤ How is sculpture made? In traditional sculpture there are two methods:

- the **subtractive method** where the artist carves the design from a stone block

- the **additive method** where the artist models the design using clay. Saint-Gaudens preferred working this way.

#### ❖ Photograph of Saint-Gaudens, 1887 (7)

- He is modeling a relief portrait of Mrs. Grover Cleveland, wife of President Cleveland, circa 1887.

➤ Saint-Gaudens knew how to carve, but he did not enjoy the process. Instead, he modeled his sculptures by adding bits of clay to build up his work.

#### ❖ Photograph of an armature (8)

- A figure for the “Firefighters” memorial in Boise, Idaho. By Larry Nowlan, Saint-Gaudens NHS Sculptor-in-Residence, 1995-97, 2002.

➤ An armature is:

- an interior system to support the clay as it is added to the sculpture
- used on very large pieces because the material becomes too heavy to support itself
- may be made of wood or iron
- like a skeleton, it is never seen!

Clay sculpture goes through several steps from first idea to final piece:

- 1) An idea is drawn on **paper**.
- 2) The artist models a small **clay "sketch"** so it can be seen from all sides.
- 3) The artist makes a **clay model** that is the same size and proportion of the finished piece. When **clay dries**, it is very **fragile** and breaks easily, so clay is never the final material.
- 4.) A **plaster mold** is made around the clay figure.
- 5.) The mold is opened and separated from the clay leaving a hollow or **negative shape**.
- 6.) **Liquid wax** is poured into the mold creating a **wax model**. Several wax models can be made from the same plaster mold, which is why you may find sculptures that look identical.
- 7.) **Wax spews** are added to the wax model. Like plumbing, they will allow an open pathway for the liquid bronze to travel and exhaust gases to escape.
- 8.) Casting in bronze is done at a foundry. A plaster–cement mixture called an **encasement** is created around one of the wax models and wax spews
- 9.) The wax is then **burned out in a kiln**, and hot, **liquid metal** (usually bronze) is poured into the hot encasement’s negative space.
- 10.) The encasement is broken away from the metal cast and the spews must be **sawed off**.
- 11.) The sculpture is given the finishing touches.
- 12.) A patina is applied to give the sculpture its finished color.

3) We have now discussed different kinds, sizes, and materials of sculpture. Let’s think about how sculpture may be used:

- **Coins** are used in trade for goods and services
- **Weathervanes** are used to show wind direction
- **Sculpture on buildings** is used to ornament and decorate
- **Garden sculpture** may be used as fountains or ornaments
- **Portraits** may be used to remember someone
- **Public monuments** are used to commemorate a person or event

- **Tombstones** may be used to document or memorialize a person's life
  - Have students **brainstorm** their own ideas!
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#### 4) Wrap-up class discussion: How is sculpture different from a painting?

- **Technique:** Although a painting creates a sense of depth, space, and solidity, a painting is two-dimensional and done on a flat surface. (In modern art, there are exceptions)
- A painting is seen from the **front only**.
- **Materials and tools:** A painter uses pigments (colors) to develop his or her design. Pigments are applied with brushes or palette knives onto the canvas, panels, or walls.
- **Color:** A sculpture is usually one color (the color of the material), whereas a painting is usually developed using different colors. Sculptors rely on light to cast shadows over the sculpture to give dimension to the work.
- Sculpture- (sculpture in the round) - often exists in our own (the viewer's) physical space. In this sense, it is very immediate and we relate to it as a tangible object. Its material or substance casts shadows.
- A painter, however, may represent a sculpture on his/her canvas!

# Lesson 2 Vocabulary

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**Allegory** (noun), allegorical (adj.) - a human figure used to represent an idea or emotion.

**Armature** (noun) - an inner structure, usually made from wood, wire, or iron pipe, and used to support the weight of clay or plaster.

**Bronze** (noun) - a metal alloy (copper, tin, and zinc) used to cast bells or sculpture.

**Bust** (noun) - a three-dimensional sculpture portrait, usually showing the head to the shoulders.

**Cast** (noun) - a reproduction of the original (statue) in metal or plaster.

**Cast** (verb) – to make a reproduction of the original.

**Colossal** (adj.) - in sculpture, an exceptional or astonishing size.

**Encasement** (noun) – structure made to surround a wax model.

**Foundry** (noun) - an establishment where the process of casting metals takes place.

**Frieze** (noun) - a horizontal strip of sculpture, usually in low relief, which is applied to a wall.

**Heroic** (adj.) - as it refers to the size of sculpture, larger than life.

**Mythology** (noun) - stories of gods and goddesses from Greek and Roman legends.

**Patina** (noun) – a green film formed naturally on copper or bronze due to long exposure to the elements, or created artificially by selected acids applied to metal to give it a certain color, usually green or brown.

**Patina** (verb) – to apply acids to metal.

**Portrait** (noun) - the real image of a person or animal.

**Relief** (noun)- a sculptural term in which the figures are attached to a background; the figures may be modeled in High relief or Low relief, and are meant to be seen from the front only.

**Sculpture in the Round** – refers to a three-dimensional sculpture, which is freestanding and has height, depth and width.

**Sprew** (noun) – a wax addition made to a sculpture to allow for the free flow of metal during casting.

**Representational** (adj.) – a work of art which is realistic, with no distortion or stylization.

# Bas Relief Activity

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**Goal: Students will demonstrate an understanding of the bas-relief sculpture process by modeling from their original drawing.**

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## Background Information:

- 1) Review with students the term *relief sculpture*. Explain that *relief sculpture* is sometimes called "a drawing in clay," in which the design is raised from the background and at the same time attached to it. Relief is meant to be seen from the front only.
  - 2) Saint-Gaudens did many relief portraits in the bas relief (pronounced **baaa**) technique. Some of his work is so delicate that the figures are modeled only 1/8" above the background.
  - 3) Remember that coins are also examples of *relief sculpture*.
  - 4) Relief is the most difficult type of sculpture to do well! Let your students try the technique, which will help them to experience this process of modeling in clay.
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## Materials:

- 1) Clay- about 1-2 pounds of clay per student. (If there is no kiln, use self-hardening clay.)
  - 2) A 12" square piece of masonite/cardboard on which to work
  - 3) Simple clay tools (or improvise with plastic spoons, forks, knives etc.)
  - 4) Rolling pins
  - 5) Atomizers or sponges (to keep the clay damp and workable)
  - 6) Plastic bags in which to keep clay and to cover student reliefs (make sure there are no holes)
  - 7) If this relief is to become a wall plaque, make a hole approx. 1/2" from the top. Clay shrinks as it dries, so make the hole larger than you might expect.
  - 8) Round toothpicks
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**Best Location for this Activity:** Any room with access to clay, water, and storage.

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## Procedure:

- 1) The night before, ask students to make a drawing which would fit on an 8" x 11" piece of paper. Subjects could be a portrait of a friend, sibling, parent, or a pet; scenes from daily life such as their house, room, or school; a historical event, a special place, or an episode from their favorite story. They could also bring in a photo to use as a start. **However, the best designs are simple.**
- 2) Distribute clay to students; wedge (knead) clay to get air bubbles out.
- 3) Students will divide their clay in half and either roll or press out a slab about 3/4" thickness. Be sure to flip the slab while it is being shaped so it will not stick to the work surface. Keep unused clay in the bag.
- 4) With a toothpick, lightly trace the drawing onto the slab. Now, using the other half of the clay, begin to model the drawing using fingers and tools. You are working for three levels of relief. The background will be the lowest relief and the foreground (those shapes closest to you) will be the highest. This will take practice.
- 5) If the clay begins to dry out, dampen it with the sponge or atomizer.

- 6) Textures should be modeled with fingers/tools for an interesting surface.
- 7) If this relief is to become a wall plaque, make a hole approx. 1/2" from the top. Clay shrinks as it dries, so make the hole larger than you might expect.



# Lesson 2 - Let's Look at Sculpture

A **SCULPTOR** is an artist who makes **SCULPTURE**.

❖ Augustus Saint-Gaudens worked in two kinds of traditional sculpture:

- **RELIEF**: in which the figures are attached to their background. A relief has been defined as a "drawing in clay." Coins and medals are examples of relief. Saint-Gaudens modeled many of his friends in portrait reliefs. If the figures in a relief form a procession, this is called a frieze.
- **SCULPTURE IN THE ROUND**: a figure which is finished on all sides and which you can walk around. A portrait bust is an example of sculpture in the round.

## What can a sculpture be made of?

Stone  
Clay  
Wood  
Plaster Cast  
Bronze Cast

## How is it made?

Carved with chisels  
Modeled with fingers or tools  
Carved with knives  
From a clay original  
From a plaster original

## What can a sculpture show?

Something **representational** or **realistic**

A **portrait**  
An **allegory**

A **myth**

Shows something real or modeled from life

Shows an individual.

Uses a human figure to suggest an idea or an emotion.

Mythology is a favorite source for subject matter using figures taken from Greek or Roman legends.

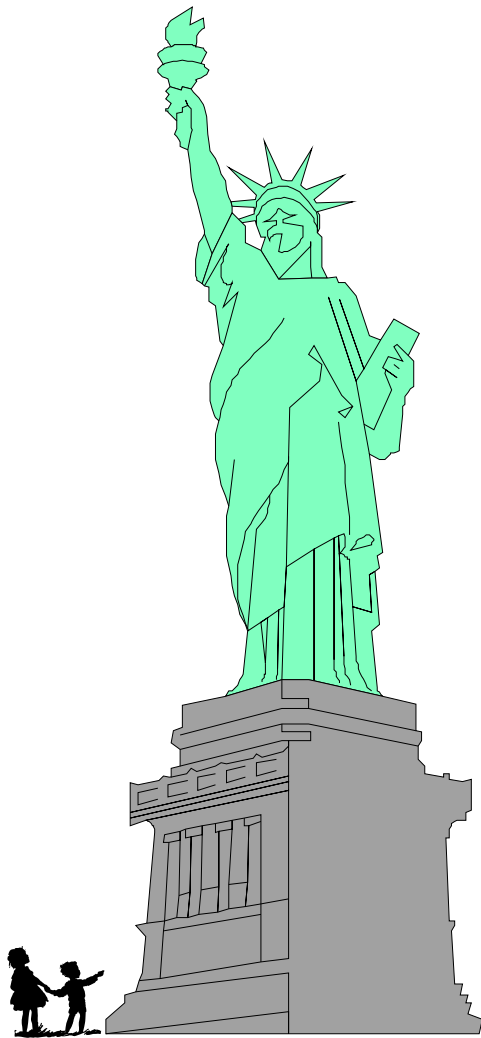
## How can you USE sculptures?

What ideas do you have?

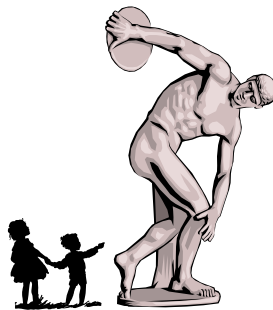
coins	used in trade for goods and services
trophies or medals	used as awards
garden figures	used as decoration or as fountains
weathervanes	used to show wind direction
public monuments	used to remember a person or event
gravestones	used to document someone's life

## What SIZE is sculpture?

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**COLOSSAL**  
(like the Statue of Liberty)



**HEROIC**  
(larger than life)



**LIFE-SIZE**



**REDUCTION**  
(less than life-size)

# PUZZLER

How many of the following sculpture terms can you find? Draw a circle around the answers. The words may be written forward, backward, on the diagonal, and may share letters.

**Happy Hunting!**

L	G	R	A	V	E	S	T	O	N	E	P
A	W	L	R	A	C	C	E	I	D	V	M
S	U	I	E	F	L	U	R	B	O	D	T
S	M	Y	T	H	O	L	O	G	Y	V	K
O	O	G	S	J	T	P	C	A	S	T	I
L	N	V	A	N	S	T	O	G	S	I	D
O	U	R	L	E	Q	U	S	U	O	A	B
C	M	I	P	U	Z	R	B	A	C	R	E
H	E	R	O	I	C	E	P	J	O	T	Y
M	N	H	A	P	C	O	I	N	L	R	A
A	T	I	D	W	P	R	Z	R	B	O	L
F	E	I	L	E	R	E	F	C	F	P	C

- |               |               |             |               |            |
|---------------|---------------|-------------|---------------|------------|
| 1. allegory   | 2. bronze     | 3. bust     | 4. cast       | 5. clay    |
| 6. coin       | 7. colossal   | 8. frieze   | 9. gravestone | 10. heroic |
| 11. monument  | 12. mythology | 13. plaster | 14. portrait  | 15. relief |
| 16. sculpture |               |             |               |            |

# PUZZLERS-DECODER

How many of the following sculpture terms can you find? Draw a circle around the answers. The words may be written forward, backward, on the diagonal, and may share letters.

L	G	R	A	V	E	S	T	O	N	E	P
A	W	L	R	A	C	C	E	I	D	V	M
S	U	I	E	F	L	U	R	B	O	D	T
S	M	Y	T	H	O	L	O	G	Y	V	K
O	O	G	S	J	T	P	C	A	S	T	I
L	N	V	A	N	S	T	O	G	S	I	D
O	U	R	L	E	Q	U	S	U	O	A	B
C	M	I	P	U	Z	R	B	A	C	R	E
H	E	R	O	I	C	E	P	J	O	T	Y
M	N	H	A	P	C	O	I	N	L	R	A
A	T	I	D	W	P	R	Z	R	B	O	L
F	E	I	L	E	R	E	F	C	F	P	C

- |               |               |             |               |            |
|---------------|---------------|-------------|---------------|------------|
| 1. allegory   | 2. bronze     | 3. bust     | 4. cast       | 5. clay    |
| 6. coin       | 7. colossal   | 8. frieze   | 9. gravestone | 10. heroic |
| 11. monument  | 12. mythology | 13. plaster | 14. portrait  | 15. relief |
| 16. sculpture |               |             |               |            |

# Draw Your Own Frieze

A **frieze** is a band of figures modeled in relief sculpture. (Example: in Saint-Gaudens' *SHAW MEMORIAL* the soldiers are modeled from very low relief to very high relief.) Can you think of a procession you have seen?....a 4th of July parade, a marching band, scout troops marching, a sports team entering a play field, or even a football lineup?

**Design your own frieze. Remember: overlapping figures give a sense of depth. Be sure to fill the space between the guidelines.**

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When Augustus Saint-Gaudens was a young man he traveled to Italy and opened his first studio in Rome, where he lived for five years. He loved the classical art and architecture he saw around him. Much later, when he came to Cornish, NH, he mounted a copy of a classical **frieze** on the wall of his studio.

## **LESSON 2 IMAGES: APPENDIX**

**Below is a list of all the images mentioned, in bold, in the Lesson 2 teacher guide. Images are listed in the order in which they appear in this guide.**

- 1. Sherman Monument, 1903**
- 2. Augusta Saint-Gaudens, 1905-1907**
- 3. The Shaw Memorial, 1884-1897**
- 4. Abraham Lincoln, 1884-1887**
- 5. “Victory” as part of the Sherman Monument, 1903**
- 6. Sculpture Tools**
- 7. Photograph of Saint-Gaudens, 1887**
- 8. Photograph of an armature**



**The Sherman Monument, Grand Army Plaza, New York City**



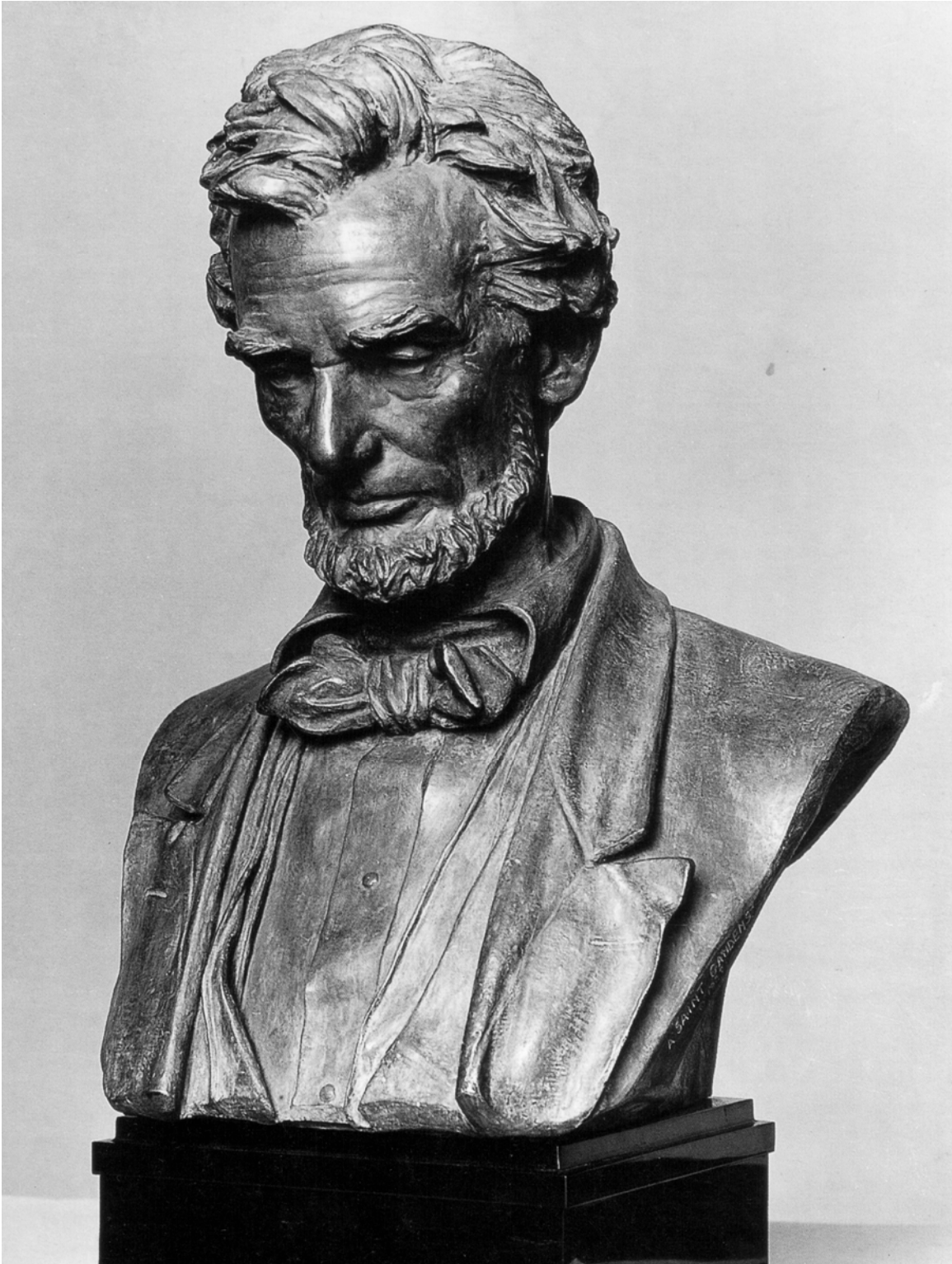


**Augusta Homer Saint-Gaudens**





**The Shaw Memorial, Saint-Gaudens National Historic Site**



**The Standing Lincoln, bust**

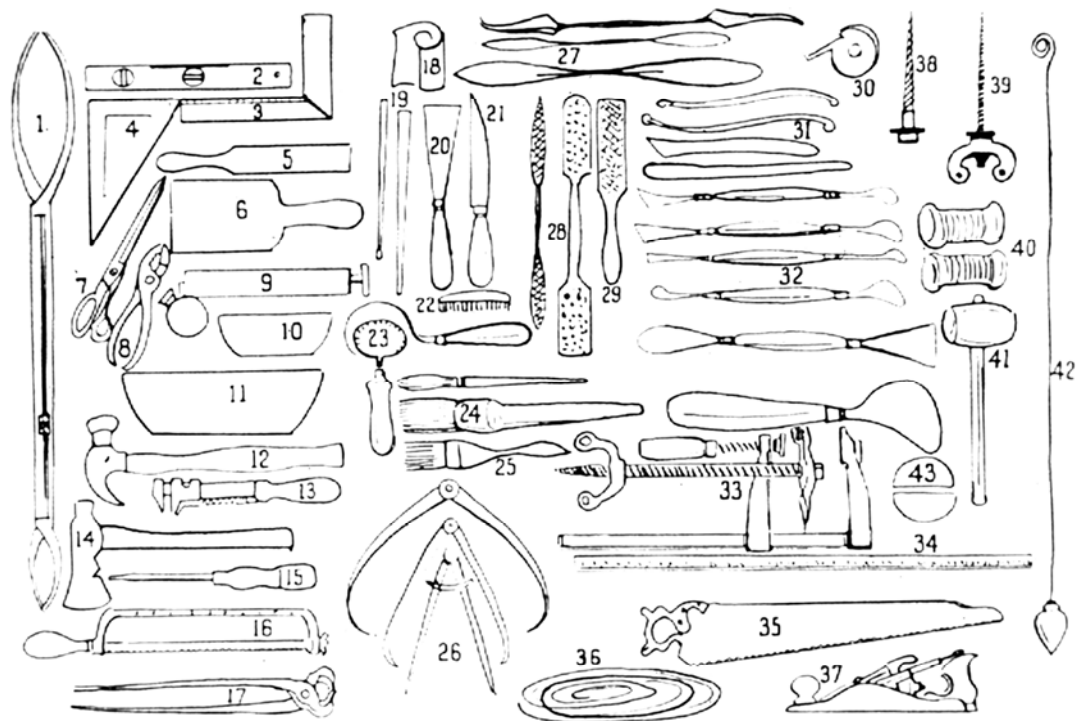


The figure of Victory accompanies the monument honoring General William T. Sherman. She is an example of an allegorical figure.



The monument to General William Tecumseh Sherman (1892-1903) is located at Grand Army Plaza, 5th Avenue at 59th St., New York City.

### **Figure of Victory; with the Sherman Monument**



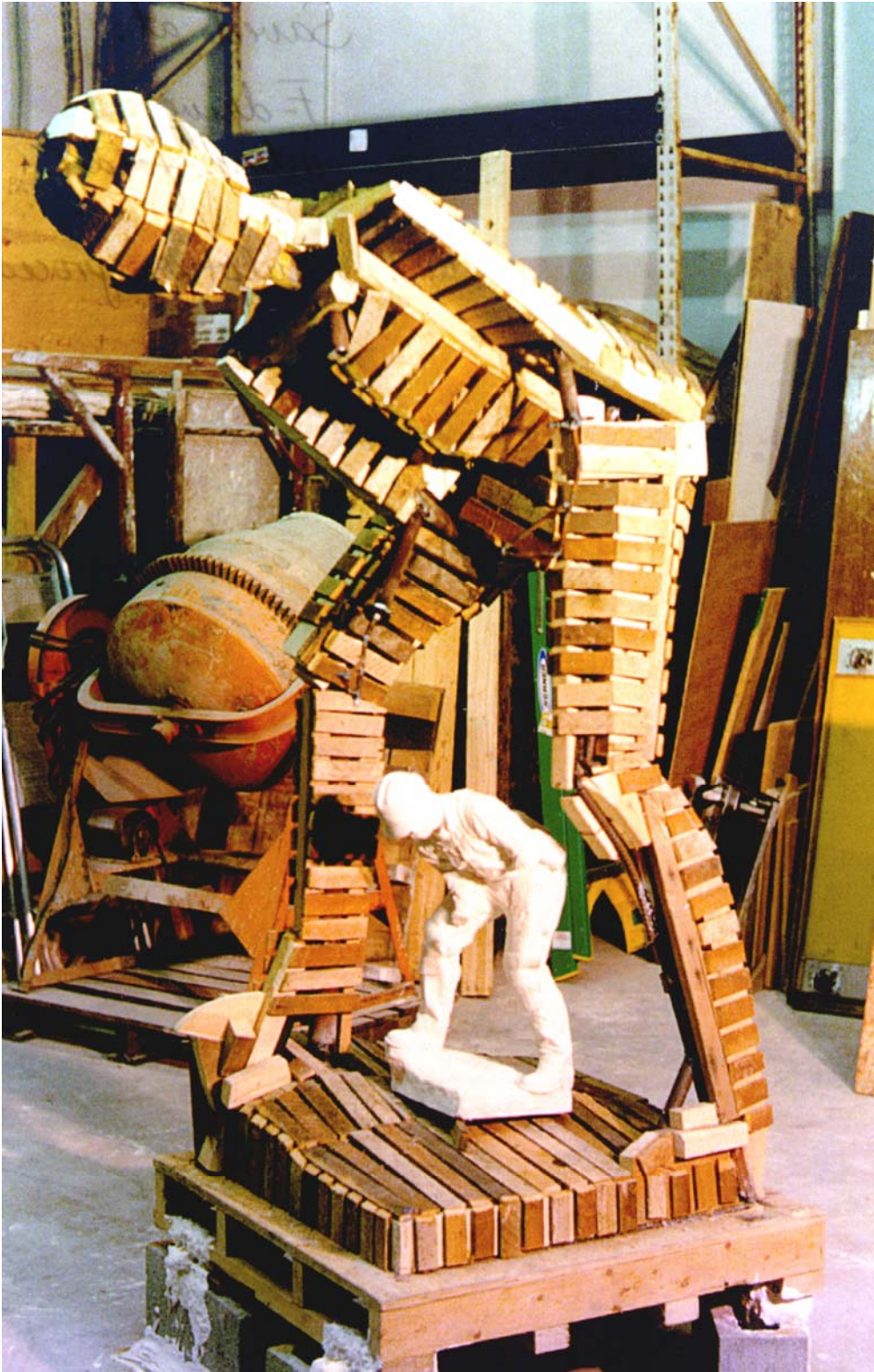
ESSENTIAL TOOLS FOR MODELING IN CLAY AND PLASTER CASTING

## Sculpture tools



**Augustus Saint-Gaudens with Mrs. Grover Cleveland**





**Armature**