

## GLOSSARY OF TERMS

### Upper-level student & adult visitors

**AESTHETIC:** A theory or concept dealing with the nature of beauty, art and taste, and with the creation and appreciation of beauty.

**ABSTRACT:** Alters the view of the world we see and retains only the essence of a thing or an idea.

**ADDITIVE SCULPTURE:** A sculpting method in which the form is developed by building up, adding, or joining materials or media to the three-dimensional representation. Some examples are clay (subtractive also) and assemblage work.

**ALLOY:** A composite of metals or elements.

**ALUMINUM:** A lightweight, silver-colored, easily worked metal used in sculpture and architecture since about 1930. Aluminum is not an alloy. The melting point of aluminum is 1,200 degrees Fahrenheit.

**ANTIQUITY:** The quality of being ancient or old; great age (a statue of great antiquity). In art, antiquity generally refers to Greek and Roman antiquity.

**ARCHITECTURAL SCULPTURE:** Sculpture, such as decorative reliefs, which is part of the design on buildings. Architectural sculpture may be indoors or out.

**ARMATURE:** A framework for supporting the clay or other plastic material in modeling. Armatures often are made of metal or wood. Lead pipes are commonly used in armatures for clay models. Metal framework or reinforcement in plaster molds and models also may be loosely referred to as armatures.

**ART:** Human ability to make objects or ideas; creativity of man as distinguished from the world of nature. The arts include painting, sculpture, architecture, performance, music, literature, drama and dance.

### **BALANCE:**

**SYMETRICAL BALANCE:** A visual balance where shapes, forms or colors are equally distributed left and right of a center line in a composition.

**ASYMMETRICAL BALANCE:** A visual balance where forms, shapes or colors are unequally distributed on either side of a center line in a composition.

**BAKEOUT:** The process of melting wax out of the lost-wax foundry mold to create a space for the molten bronze.

**BASE:** The bottom of a piece of sculpture or the display item that a piece of sculpture is mounted on for display. Some materials that bases can be made from include micarta, wood, stone or marble.

**BAS-RELIEF:** *See Relief.*

**BLUING:** A water soluble dye used in making the color of the first coat of a casting material identifiable. It is used to color the first coat of a waste mold to show that the cast is close to being chipped.

**BRONZE:** An alloy or mixture of metals made by combining copper (90 percent) with tin (10 percent) and sometimes lead and zinc (usually in equal parts). Copper also can be mixed with silicon to make silicon bronze. The *Torso of a Dancer* is silicon bronze. The melting point of bronze is about 2,000 degrees Fahrenheit.

**BURNOUT:** The heating of the ceramic foundry mold to eliminate all traces of wax, carbon and water.

**CAST:** A sculptural object made by pouring a fluid or molten material into a hollow form/mold and allowing that material to harden.

**CERAMIC SHELL CASTING METHOD:** A recent innovation in bronze casting technology that employs a thin ceramic shell mold. The model repeatedly is dipped into a liquid ceramic solution that dries rock hard. The mold then is heated to melt the (WHAT WAX?) wax, which runs out of the mold. This one-piece investment leaves no mold marks, thus reducing the amount of cold work necessary.

**CIRE-PERDUE CASTING METHOD:** *See LOST-WAX CASTING METHOD.*

**CLASSIC:** Of the highest class; being a model of its kind; or of having a style that is balanced, formal, objective, restrained, regular or simple.

**CLASSICAL:** Characteristic of or derived from the literary and artistic standards, principles and methods of the ancient Greeks and Romans; designating or of a specified area or course of study that is or has been standard and traditionally authoritative, not new, recent and experimental.

**CLAY:** A malleable mud-like substance in which the sculptor first gives form to his creation. Natural clay was used in sculpture until about 1900, when a synthetic

(oil-based) clay was developed. The natural water-based clay was susceptible to drying out, cracking, and freezing. The synthetic clay is oil-based and thus is less likely to dry out. The most common trade names for oil-based clay are plastilene, plastilina and plasticine.

**CLAY MODEL:** The original sculpture made by the artist. It can be made of oil-based clay or water-based clay.

**COLD WORK, CHASING or FINISHING:** Work done to the hard, cold, cast bronze sculpture. Files, hammers, chisels and abrasives are used to remove the sprue, gates, vents and risers, and to work the bronze to remove unwanted imperfections or to add detail lost in the casting process. Certain textural effects also can be created on the surface.

**COLOSSAL:** Many times life-size.

**CORE:** The interior sculptural form made of the same substance as the foundry mold and held in place by steel pins and rods in order to create a hollow bronze cast.

**CONSUL:** A person appointed by a government to aid and serve its citizens and business interests in a foreign city.

**CONTOUR:** The defined edge, ridge or outline of a shape, form or plane.

**CRUCIBLE:** The container used to melt bronze.

**COPE:** A rectangular iron flask that is placed on top of the drag that holds the plaster model in the sand.

**DE-MOLDING:** Removing the mold from a piece of sculpture by prying or chipping.

**DOCENT:** A gallery or museum tour guide/teacher.

**DRAG:** A rectangular iron flask placed under the cope that holds the plaster model in the sand.

**FLANGE:** Base or seam area of a mold. Area that extends from the base of a model when making rubber molds to keep the rubber intact while casting. Usually extends 3 inches from the base of the piece.

**FLASHING:** Seepage when pouring a liquid or molten material into a mold with a seam or from cracks in the mold. The excess is referred to as the flashing and should be trimmed before completion of the cast.

**FRENCH SAND:** A special fine sand used to create the mold for the bronze or metal casting. It consists of clay, silica and alumina.

**GATES:** The system of vents within the mold to let air escape when pouring molten metal. This reduces air pockets and also lets the person pouring know when the mold is full of molten metal.

**GESTURE:** Movement of body or hands to express thought in a non-verbal manner.

**HEROIC-SCALE:** Larger than life-size but less than colossal.

**INVESTMENT:** A material used to coat the face coat over a wax model prior to bronze casting.

**IN-THE-ROUND or FREE STANDING:** A three-dimensional artwork or sculpture having length, width and depth. It is viewable from all angles.

**KINETIC SCULPTURE:** Assemblage or sculpture made of parts designed to be set in motion by an internal mechanism or external stimulus, such as light or air. Simply stated, artwork that involves motion or movement.

**LIMESTONE:** Rock consisting mainly of calcium carbonate, often composed of the organic remains of sea animals; used as building stone, and as a source of lime. When crystallized by heat and pressure it becomes marble.

**LOST-WAX CASTING TECHNIQUE:** A method of making metal casts involving an original wax model that is invested in a plaster mold then melted out. Bronze is then poured into the cavity left by the "lost wax," or the vacant cavity where the wax originally was. This method also is known as cire-perdue. For comparison, see sand cast and ceramic shell cast.

**MARBLE:** A hard, crystalline or granular, metamorphic limestone that is white or variously colored and streaked or mottled. It can take a high polish and is much used in sculpture and architecture.

**TERRAZZO MARBLE:** A composite of small chips of marble set in cement and polished. The *Friendly Frog* in Flint, Michigan, is cast in green terrazzo marble.

**CARRARA MARBLE:** A fine white marble quarried near Carrara, Italy.

**TRAVERTINE MARBLE:** A light-colored, usually concretionary limestone deposited around many **limy** springs, lakes or streams. Travertine is quite

porous, like Swiss cheese. The pores normally are filled when the stone is used in buildings.

**MAQUETTE:** A small model of a planned sculpture or building. It is not necessarily made to scale.

**MEDALLION:** A small, flat piece of metal with a design or inscription stamped or inscribed on it made to commemorate some event or awarded for some distinguished action.

**MOLD/MOULD:** The negative form made from the original clay/plastilene, wax or plaster model to use in casting the sculpture in another material. The mold consists of two or more halves and may be made from sand, plaster, ceramic and other materials.

**MOLD MARKS:** Marks on the finished plaster or bronze cast along the joins between sections of the mold.

These are caused by molten bronze surging between the mold sections during the pouring of the bronze. Mold marks must be removed using cold working techniques. This is similar to flashing.

**MOLD SOLUTION:** The material that coats the interior surface of the mold to assist in easier separation of a cast from the mold.

**MOLDER:** The person that creates the mold.

**MONUMENT:** A structure, such as a building or sculpture, erected as a memorial to a person or event.

**MOTHER MOLD:** This is a plaster shell or mold constructed around a rubber inner mold or used as a backing for support of flexible materials. Rubber molds generally are stored in the mother mold.

**MOTIF:** A recurring thematic element in a work of art, or a single or repeated design or color.

**MUSEUM:** An institution dedicated to the study, preservation, interpretation and display of artistic, historical or scientific objects.

**NEGATIVE:** The hollow cavity of the mold to assist in easier separation of a cast from the mold.

**NEGATIVE SPACE:** In figurative sculpture, it is generally referred to as the space around the object or form.

**NON-OBJECTIVE ART/NON-REPRESENTATIONAL ART:** Depicts no recognizable object or clear reference to the world we see.

**NOTCH:** This is a round or square indentation cut into the mold wall to act as a locking device in conjunction with key grooves. They are usually placed every 3 inches to 4 inches along the mold wall, depending on the size of the mold.

**OBVERSE:** The side, as of a coin or medal, bearing the main design and the date. It is the opposite of reverse.

**ORIGINAL:** The beginning, earliest or first of anything.

**PATINA/PATINATION:** An oxidation process in which acidic solutions are applied with or without heat to a finished bronze cast in order to color the surface. Different acid solutions can produce a wide variety of colors.

**PATINATEUR:** A French term commonly used for a person who applies a patina.

**PARTING/RELEASING AGENT:** Soap, oil or liquid used in the interior of a mold to assist in the separation of the cast or model from the mold. Different rubber molds may require special types of releasing agents for specific casting materials.

**PEDESTAL:** A display stand for sculpture. Pedestals can be any size that is required for the display of the sculpture.

**PENDANT:** A hanging, ornamental object; a decorative piece suspended from a ceiling or roof.

**PIECE MOLDS:** Small mold sections made from the clay model that are separated by the shims.

**PLASTER:** A pasty mixture of lime or gypsum, sand, and water, which hardens upon drying. Since plaster dries through crystallization, it does not shrink. This makes it perfect for mold-making.

**PLASTER MODEL:** The plaster likeness of the original clay model. Also called the plaster original model, it is used to create the fire resistant mold to cast in bronze, aluminum or other metal.

**PLASTILENE:** A synthetic clay which has an oil base. Plastilene will not dry out like the older, water-based natural modeling clay. It's also known as plasticine or plastilina.

**POSITIVE:** A piece or cast taken from a negative mold. A positive is cast into a negative to create the final piece.

**POSITIVE SPACE:** In figurative sculpture, it is generally referred to as the shape or form of the figure.

**PUBLIC SCULPTURE:** Sculpture generally placed in high public visibility areas. It includes monuments, memorials, architectural sculpture and cemetery monuments.

**RELIEF:** The projection of figures and forms from a flat surface, so that they stand partly free.

**BAS-RELIEF:** Sculpture where forms are carved or modeled on a flat surface so that they project slightly from the background (for example, *Motion in Nature*).

**HIGH RELIEF:** Sculpture where forms are carved or modeled on a flat surface so that they project greatly from the back surface. High reliefs have deep undercuts behind some figures. The figures may be nearly free-standing (for example, *Veterans Memorial Building Eagle*).

**INCISED RELIEF:** Sculpture where forms are carved or modeled on a flat surface so that they are recessed below the flat, planar surface (for example, *Veterans Memorial Building Pylons*).

**REPRESENTATIONAL ART:** Reproduces the world we see with minimal change from the appearance of things in everyday life.

**REVERSE:** The back or rear of something; specifically the side, as of a coin or medal that does not have the main design. It is the opposite of obverse.

**RISERS or VENTS:** Vertical chutes in the mold for air and gasses to escape during the pour.

**SAND-CASTING METHOD:** To make a casting by pouring metal in a mold of French sand. The damp sand is tightly packed around the model and then baked rock hard after the model is removed. The mold is often made in small sections that are pieced together. As a result, mold marks/flashing usually require extensive cold working.

**SAND MOLDS:** Molds made directly from the plaster model with French sand and then hardened and used to cast the bronze. This mold is destroyed when removing the cooled bronze cast.

**SEAM LINE:** The line that is made between the mold sections when pouring a cast, either in plaster, molten metal or resin.

**SCULPTURE:** The art of carving wood, chiseling stone, assembling, casting or welding metal, or modeling clay or wax into three-dimensional representations, as statues, figures or forms; any work of sculpture or such works collectively.

**SHIMS:** Pieces of thin sheet metal pressed into clay models to divide them into smaller sections so that the plaster molds may be made in pieces.

**SLIP:** A ceramic material used in casting greenware for ceramic pieces. A material that acts as a binder when mending joints or broken pieces of sculpture.

**SPACE:** The area around within or between images or elements.

**SPRUE:** A pouring funnel in a mold that conveys molten metal to the main body of the sculpture. It then flows through the mold to the form, gates, vents, and risers.

**STATUE:** A sculpture of a figure, either human or animal.

**STYLIZED:** To represent or design according to a style or stylistic pattern rather than according to nature.

**SUBTRACTIVE SCULPTURE:** A sculpting method in which the form is developed by removal of the material or media from a three-dimensional representation. Examples are wood- or stone-carving.



**TAPESTRY:** A heavy cloth woven by hand or machinery with decorative designs and pictures woven into the design. Tapestries often are used as wall hangings. The wool wall hanging in the museum, covering the lights, is by Suzanne Dalton.

**TEXTURE:** The actual or visual quality of a surface. Tree bark, animal fur, cement, and sand are examples of different textures. Textures can be actual or implied.

**THREE-DIMENSIONAL:** Having length, width and depth.

**TRAVERTINE:** See *MARBLE, TRAVERTINE MARBLE*.

**TWO-DIMENSIONAL:** Having length and width and giving the illusion of a three-dimensional object or space.

**UNDER CUTS:** Areas of a model or sculpture having exaggerated protrusions or overhangs that will not enable an easy release of a section or part of a mold.

**VENTS:** Vertical channels placed on the model to the exterior of the mold enabling gases and captured air to escape, reducing air pockets within the cast.

**VISUAL ARTIST:** A visual artist is someone who transforms materials using a rich imagination and design skills; the artist illuminates those materials with a keen intellect and elevates those materials into a new dimension. Experts call this new dimension art.

**WASTE MOLD:** A mold made of plaster that will be used once then destroyed by chipping the original mold from the subsequent cast.

**WAX:** An organic or inorganic material often used for modeling as well as for the production of the hollow replicas of the clay model that are essential in several bronze-casting processes.