

THEORY & PRACTICE

Creating the Illusion of Space in Sculpture



▲ 7.37 Lorenzo Ghiberti. *Joseph of Egypt Sold by His Brothers* (1425–1452) Panel from *The Gate of Paradise*, gilded bronze (31 1/2" x 31 1/2").

Devices for creating an illusion of space in drawing and painting are analogous to those used in **relief sculpture**, that is, sculpture in which figures project from the two-dimensional surface (like a slab of marble, plank of wood, or piece of bronze) of which they are a part. Sometimes the figures project significantly from the surface (*high relief*) and appear almost three-dimensional; sometimes they are no higher than the surface (*low relief*). Regardless, with relief sculpture, the viewer is meant to observe the work from a frontal perspective, much as with painting or drawing.

Joseph of Egypt Sold by His Brothers (Fig. 7.37), one of ten reliefs from early Renaissance artist Lorenzo Ghiberti's bronze doors for the Baptistery of the Cathedral of Florence, was renowned for its spatial illusionism. It showcases

several devices for creating depth in this work that we might also find in painting: the architectural elements recede into space, their arches diminishing in height and span; the familiar use of orthogonal lines in a tile floor appear to converge at a single point in the distance; the figures diminish in size relative to their location in the pictorial space; location is used in the top right corner to suggest the deepest recesses of space.

Ghiberti's variation in levels of relief also dramatically heightens the illusion of space. Figures in the foreground, modeled in high relief, appear almost three-dimensional—so much so that they even cast shadows on the surface. Those in the middle ground and background, in much shallower relief, are less fully rounded, appear less distinct, and therefore are perceived as more distant from the viewer.



Check out the *Visual Glossary—Mediums* at the end of the book to learn more about sculpture.

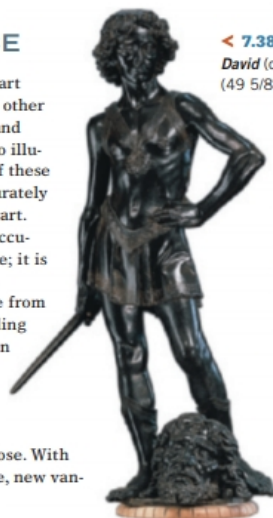
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ACTUAL SPACE

Three-dimensional works of art (sculpture, architecture, and other freestanding works) define and occupy actual—as opposed to illusory—space. In the context of these mediums, space is more accurately considered as an element of art.

Freestanding sculpture occupies three-dimensional space; it is sculpture that one can walk around or otherwise observe from every angle. Some freestanding sculpture is meant to be seen from a single vantage point—frontally; everything the artist wants us to know about the work is revealed in a single, fixed pose. With other freestanding sculpture, new van-



< **7.38** Andrea Verrocchio. *David* (c. 1470) Bronze (49 5/8" high).

tage points provide new revelations. Consider two different representations of David, the heroic youth who—according to the Bible—slew the towering Philistine warrior, Goliath. Verrocchio's earlier *David* (Fig. 7.38) is to be viewed from a frontal perspective. David faces forward, directly engaging the viewer's eye. Even the severed head of Goliath at David's feet is propped up for the best frontal view. The viewer does not want for additional visual information that might be provided by walking around the figure.

freestanding sculpture / A three-dimensional form that is carved or cast in the round, unconnected to any architectural member, which can be viewed from any of the 360 degrees of vantage points achieved by walking around it in a circle.



▲ **7.39a** and **7.39b** Gianlorenzo Bernini. *David* (1623) Marble (79" high).

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Not so in Bernini's version of the same subject. His *David* (Fig. 7.39) is in the midst of action. We catch him in the split-second before he releases the stone from his slingshot, the weapon that will fell Goliath. If we were to settle for a single view of the work, we would be missing much of the composition—and the narrative. David twists and turns, his arms braced in powerful diagonals that pull the sling taut across this body. These diagonals, echoed in the folds of drapery, seem to forcibly drag the viewer around the sculpture. The reward for not standing still is the unfolding of the action before one's eyes. As the viewer moves in actual space, David likewise appears to move.

A similar effect is achieved in Allen Jones's *Echo* (Fig. 7.40). Shapes of col-

ored metal suggest clothing, arms, and legs. Any sense of completion—of an integrated whole—depends on the viewer's movement around the piece and the synthesis of the lost and found contours of the figures. As they glide and twirl, the intertwined cutouts are like so

many glimpses we might have of the couple floating on a dance floor. The principle of closure—the eye's tendency to integrate disparate parts based on scant cues—infuses these figures with movement and renders dynamic the otherwise static strips of metal.

TRY THIS

Take a pliable material such as thick paper or cardboard and make a freestanding sculpture of any size. Feel free to add as many layers as you want to. Pay equal attention to each side of the sculpture. Create directional lines and/or repetitive shapes that encourage the viewer to walk around it and view it from all angles. When you are finished, place it in the middle of a room and ask some friends to come see it. Without leading them, watch how they approach the sculpture. Do they walk around it, or do they stand in one spot? Why do you think they behaved in the way that they did? After a few minutes, interview them about their physical reaction.



7.40a and 7.40b Allen Jones. *Echo* (2003) Painted steel (78 3/4").
© Allen Jones. Courtesy Marlborough Fine Arts, London.

Architecture

Architecture is the art and science of designing and building structures to meet the personal and communal needs of societies—homes and hospitals, museums and theaters, bridges and tunnels, places of business, places of worship. Architecture grants protection and privacy and creates spaces and places in which to conduct the business of life. Architecture is one of those art forms, then, that exists in actual space; is also an art form that, for the most part, serves a function.

Architects make choices about how they will define space, enclose space, occupy space. They make decisions, as do sculptors and painters, about how the user will relate to the space in and around their work. And in some instances, like their counterparts in the visual arts, they will use their medium to create illusions. Consider these examples of historic architecture: the Parthenon of ancient Greece, the Pantheon of ancient Rome, and Beauvais Cathedral from the era of sublime Gothic-style architecture. Each offers us a somewhat different view of the relationship between the individual and the actual space of the structure.

It has been said that the Greeks created an architecture of form and the Romans an architecture of space. The statement was probably meant to distinguish between an architecture that focused primarily on outward appearances and one whose emphasis was on interior space. The Parthenon (Fig. 7.41) is a model of perfect design mathematics. The regular spacing of the columns, symmetry, and rhythm of the overall design, the placement of the architectural sculpture, as well as its narrative content together signify the importance of the exterior. It was the exterior of the building that played to the masses; only a select few were permitted to enter the inner sanctum of the *cella*, the interior room that housed the cult statue of Athena. The Parthenon, thus, seems almost a freestanding sculpture—a work of art to be walked around, to be observed from all angles.

The exterior of the Pantheon, by contrast, engages the viewer only minimally. The columned portico of the façade serves as an invitation to enter—an architectural transition between outer and inner space, between the world of mortals and the realm of the immortals. Begun in the second century CE, it was revolutionary in design—a concrete

capped by a dome 142 feet in diameter rising 142 feet from the floor (Fig. 7.42). This is a space that must be experienced physically in order to be fully understood: an interior that can be wrapped around a sphere, one that would seem to encompass the earth. Standing beneath the *oculus* that pierces the vast hemisphere of the dome at its highest point, it is as if the entirety of the heavens enfolds visitors, diminishing their scale—and sense of importance. And it would have seemed all the more so in its day—with golden bronze rosettes studing the recessed coffers of the dome like so many glittering stars.

The relationship between these glorious spaces and the glory of the gods is one that exists in art history across cultures and time. The most magnificent mosques in the Islamic tradition feature expansive, mosaic-embellished

architecture / The art and science of designing and building structures to meet the needs of persons and societies.

cella / The inner room of a Greek temple, used to house the statue of the god or goddess to whom the temple is dedicated.

oculus / In architecture, a circular opening, especially at the top of a dome.



▲ 7.41 Ictinos and Callicrates. *The Parthenon on the Acropolis, Athens, Greece* (448–432 BCE).

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▲ 7.42 Interior View of the Pantheon, Rome, Italy (117–125 CE).



▲ 7.43 Interior View of Beauvais Cathedral (Cathedral of Saint-Pierre), Beauvais, France (1225–1384).

domes, as do many Christian basilicas. And while the Gothic style of Christian architecture embraced the pointed arch and the vaulted ceiling, the goal of the architects was similar: to create a space that symbolized the vast reaches of the heavens—a space in which the worshiper might be drawn upward spiritually (Fig. 7.43). The designers of Beauvais Cathedral took

this metaphor so seriously that the extreme height of the vault proved to be too much for the supports, resulting in a collapse of part of the cathedral. It is a work that comes about as close to an illusion of an otherworldly space as anything.

Space *and* art is just as essential to our discussion as space *in* art. We take actual space for granted because almost

everything around us can be said to occupy it. But understanding the ways in which humans relate to space (and things in actual space such as sculpture and architecture) helps us appreciate the artistic drive to create an illusion of three-dimensional space on a two-dimensional surface. It helps us see the relationship between actual space and the illusion of space.

ARTISTS ON ART

Key Terms

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amplified perspective (p. 146)
architecture (p. 152)
atmospheric perspective (p. 137)
brightness gradient (p. 137)
cella (p. 152)
composite view or twisted perspective (p. 145)
conceptual representation (p. 144)
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Space

Space is the breath of art.
—Frank Lloyd Wright

At a distance this fine oak seems to be of ordinary size. But if I place myself under its branches, the impression changes completely: I see it as big, and even terrifying in its bigness.

—Eugene Delacroix

A mountain seen in the haze of distance must nevertheless look a solid heavy mountain.

—Robert Henri

Perspective is to painting what the bridle is to the horse, the rudder to a ship.

—Leonardo da Vinci

People think one-point and two-point perspective is how the world actually looks, but of course, it isn't. It's a convention.

—Roy Lichtenstein

Height, width, and depth are the three phenomena which I must transfer into one plane to form the abstract surface of the picture, and thus to protect myself from the infinity of space.

—Max Beckmann

The peculiarity of sculpture is that it creates a three-dimensional object in space. Painting may strive to give on a two-dimensional plane, the illusion of space, but it is space itself as a perceived quantity that becomes the peculiar concern of the sculptor. We may say that for the painter space is a luxury; for the sculptor it is a necessity.

—Herbert Read