**Sculpture**

SCULPTURE art of producing in three dimensions representations of natural or imagined forms. It includes sculpture in the round, which can be viewed from any direction, as well as incised relief , in which the lines are cut into a flat surface.

See also articles on special techniques, e.g., model and modeling .

**Techniques and Materials**

Sculpture embraces such varied techniques as modeling, carving, casting, and construction—techniques that materially condition the character of the work. Whereas modeling permits addition as well as subtraction of the material and is highly flexible, carving is strictly limited by the original block from which material must be subtracted. Carvers, therefore, have sometimes had recourse to construction in which separate pieces of the same or different material are mechanically joined together. Casting is a reproduction technique that duplicates the form of an original whether modeled, carved, or constructed, but it also makes possible certain effects that are impractical in the other techniques. Top-heavy works that would require external support in clay or stone can stand alone in the lighter-weight medium of hollow cast metal.

The principal sculptural techniques have undergone little change throughout the ages. Hand modeling in wax (see wax figures ), papier-mache , or clay remains unaltered, although the firing of the clay from simple terra-cotta to elaborately glazed ceramics has varied greatly. Carving has for centuries made use of such varied materials as stone, wood, bone, and, more recently, plastics, and carvers have long employed many types of hammers, chisels, drills, gauges, and saws. For carrying out monumental works from small studies, various mechanical means have been developed for approximating the proportions of the original study.

Bronze casting is also a technique of extreme antiquity (see bronze sculpture ). The Greeks and Chinese mastered the cire perdue (lost-wax) process, which was revived in the Renaissance and widely practiced until modern times. Little Greek sculpture in bronze has survived, apparently because the metal was later melted down for other purposes, but the material itself resists exposure better than stone and was preferred by the Greeks for their extensive art of public sculpture. Metal may also be cast in solid, hammered, carved, or incised forms. The mobile is a construction that moves and is intended to be seen in motion. Mobiles utilize a wide variety of materials and techniques (see also stabile ). Contemporary practice emphasizes the beauty of materials and the expression of their nature in the work.

History

Ancient Sculpture

Sculpture has been a means of human expression since prehistoric times. The ancient cultures of Egypt and Mesopotamia produced an enormous number of sculptural masterworks, frequently monolithic, that had ritual significance beyond aesthetic considerations (see Egyptian art ; Assyrian art ; Sumerian and Babylonian art ; Hittite art and architecture ; Phoenician art ). The sculptors of the ancient Americas developed superb, sophisticated techniques and styles to enhance their works, which were also symbolic in nature (see pre-Columbian art and architecture ; North American Native art ). In Asia sculpture has been a highly developed art form since antiquity (see Chinese art ; Japanese art ; Indian art and architecture ).

The freestanding and relief sculpture of the ancient Greeks developed from the rigidity of archaic forms. It became, during the classical and Hellenistic eras, the representation of the intellectual idealization of its principal subject, the human form. The concept was so magnificently realized by means of naturalistic handling as to become the inspiration for centuries of European art. Roman sculpture borrowed and copied wholesale from the Greek in style and techniques, but it made an important original contribution in its extensive art of portraiture , forsaking the Greek ideal by particularizing the individual (see Greek art ; Etruscan art ; Roman art ).

Western Sculpture from the Middle Ages to the Seventeenth Century

In Europe the great religious architectural sculptures of the Romanesque and Gothic periods form integral parts of the church buildings, and often a single cathedral incorporates thousands of figural and narrative carvings. Outstanding among the Romanesque sculptural programs of the cathedrals and churches of Europe are those at Vezelay, Moissac, and Autun (France); Hildesheim (Germany); and Santiago de Compostela (Spain). Remarkable sculptures of the Gothic era are to be found at Chartres and Reims (France); Bamberg and Cologne (Germany). Most of this art is anonymous, but as early as the 13th cent. the individual sculptor gained prominence in Italy with Nicola and Giovanni Pisano .

The late medieval sculptors preceded a long line of famous Italian Renaissance sculptors from Della Quercia to Giovanni da Bologna . The center of the art was Florence, where the great masters found abundant public, ecclesiastical, and private patronage. The city was enriched by the masterpieces of Ghiberti , Donatello , the Della Robbia family, the Pollaiuolo brothers, Cellini , and Michelangelo . The northern Renaissance also produced important masters who were well known individually, such as the German Peter Vischer the elder, the Flemish Claus Sluter , and Pilon and Goujon in France.

In France a courtly and secular art flourished under royal patronage during the 16th and 17th cent. In Italy the essence of the high baroque was expressed in the dynamism, technical perfection, originality, and unparalleled brilliance of the works of the sculptor-architect Bernini . The sculpture of Puget in France was more consistently Baroque in style and theme than that of his contemporaries Girardon and the Coustous .

**Modern Sculpture**

The 18th cent. modified the dramatic and grandiose style of the baroque to produce the more intimate art of Clodion and Houdon , and it also saw the birth of neoclassicism in the work of Canova . This derivative style flourished well into the 19th cent. in the work of Thorvaldsen and his followers, but concurrent with the neoclassicists, and then superseding them, came a long and distinguished line of French realist sculptors from Rude to Rodin .

Rodin's innovations in expressive techniques helped many 20th-century sculptors to free their work from the extreme realism of the preceding period and also from the long domination of the Greek ideal. In the work of Aristide Maillol , that ideal predominates. The influence of other traditions, such as those of African sculpture and Aztec sculpture (in both of which a more direct expression of materials, textures, and techniques is found), has contributed to this liberation (see African art ).

Among the gifted 20th-century sculptors who have explored different and highly original applications of the art are sculptors working internationally, including Pablo Picasso , Constantin Brancusi , Jacques Lipschitz, Naum Gabo , Antoine Pevsner , Ossip Zadkine , Alberto Giacometti , and Ivan Mestrovic . Important contributions have also been made by the sculptors Jacob Epstein , Henry Moore , and Barbara Hepworth (English); Aristide Maillol, Charles Despiau , and Jean Arp (French); Ernst Barlach , Wilhelm Lehmbruck , and Georg Kolbe (German); Julio Gonzalez (Spanish); Giacomo Manzu and Marino Marini (Italian); and Alexander Calder , William Zorach , David Smith , Richard Lippold , Eva Hesse , and Louise Nevelson (American).

An element of much modern sculpture is movement. In kinetic works the sculptures are so balanced as to move when touched by the viewer; others are driven by machine. Large moving and stationary works in metal are frequently manufactured and assembled by machinists in factories according to the sculptor's design specifications.