CHAPTER 13

SCULPTURE

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All of the media we have considered thus far—drawing, printmaking, and painting—are generally considered two-dimensional media. In this chapter, we turn to a discussion of the three-dimensional media and their relation to the space we ourselves occupy. Sculpture, the chief of these, is one of the oldest and most enduring of all the arts. All the types of sculpture we will study in this chapter—carving, modeling, casting, construction and assemblage, and earthworks—employ two basic processes: They are either subtractive or additive in nature. In subtractive processes, the sculptor begins with a mass of material larger than the finished work and removes material, or subtracts from that mass until the work achieves its finished form. Carving is a subtractive process. In additive processes, the sculptor builds the work, adding material as
the work proceeds. Modeling, construction, and assemblage are additive processes. Casting, in which material in a liquid state is poured into a mold and allowed to harden, has additive aspects, but as we shall see, it is in many ways a process of its own. Earthworks often utilize both additive and subtractive processes.

In addition to these processes, there are three basic ways in which we experience sculpture in three-dimensional space—as relief, in the round, and as an environment. If you recall the process for making woodblock prints, which is described in Chapter 11, you will quickly understand that the raised portion of a woodblock plate stands out in relief against the background. The woodblock plate is, in essence, a carved relief sculpture, a sculpture that has three-dimensional depth but is meant to be seen from only one side.

Among the great masters of relief sculpture were the Egyptians, who often decorated the walls of their temples and burial complexes with intricate raised relief sculpture, most of which was originally painted. One of the best preserved of these is the so-called “White Chapel,” built by Senwosret I in about 1930 B.C.E. at Karnak, Thebes, near the modern city of Luxor in the Nile River valley. Like many great archeological finds it has survived, paradoxically, because it was destroyed. In this case, 550 years after its construction, King Amenhotep III dismantled it and used it as filling material for a monumental gateway for his own temple at Karnak. Archeologists have thus been able to reconstruct it almost whole. The scene here (Fig. 362) is a traditional one, showing the Senwosret I in the company of two Egyptian deities surrounded by hieroglyphs, the pictorial Egyptian writing system. On the left is Amun, the chief god of Thebes, recognizable by the two plumes that form his headdress and by his erect penis. In the middle, leading Senwosret, is Atum, the creator god. By holding the hieroglyph ankh (a sort of cross with a rounded top) to Senwosret I’s nose, he symbolically grants him life.

Like the Egyptians, the Greeks used the sculptural art of relief as a means to decorate and embellish the beauty of their great
architectural achievements. Forms and figures carved in relief are spoken of as done in either **low relief** or **high relief**. (Some people prefer the French terms, *bas-relief* and *haut-relief*. ) The very shallow depth of the Egyptian raised reliefs is characteristic of low relief, though technically any sculpture that extends from the plane behind it less than 180° is considered low relief. High relief sculptures project forward from their base by at least half their depth, and often several elements will be fully in the round. Thus, even though it possesses much greater depth than the Egyptian raised relief at Karnak, the fragment from the frieze, or sculptural band, on the Parthenon called the Maidens and Stewards (Fig. 363), projects only a little distance from the background, and no sculptural element is detached entirely from it. It is thus still considered low relief. By contrast, Atlas Bringing Herakles the Golden Apples (Fig. 364), from the Temple of Zeus at Olympia, is an example of high relief. Here, the figures project from the background at least half their circumference, and other elements, like the left arm of Atlas, the right-hand figure, float free.

Of the two, the relief from the Temple of Zeus is the simpler and more direct in carving style. It depicts the moment in the story of
Herakles when the giant Atlas returns from the Hesperides with the Golden Apples of immortality. In Atlas’s absence, Herakles had assumed the giant’s normal task of holding up the heavens on his back, assisted by a pillow that rests upon his shoulders. In the relief, his protectress, Athena, the goddess of wisdom, helps Herakles to support the weight of the sky so that he can exchange places with Atlas. The frontality of Athena’s body is countered by the pure profile of her face, a profile repeated in the positioning of both Herakles and Atlas. Compared to the Egyptian relief sculpture at Karnak, where the head and legs are in profile, and the body squarely frontal, the frieze from Olympia seems highly naturalistic. Still, the composition of this relief is dominated by right angles, and as a result, it is stiff and rigid, as if the urge to naturalism, realized, for instance, in the figure of Herakles, is as burdened by tradition as Herakles is himself weighed down.

The naturalism of the Parthenon frieze is much more fully developed. Figures overlap one another and are shown in three-quarter view, making the space seem far more natural and even deeper than that at Olympia, though it is, in fact, much shallower. The figures themselves seem almost to move in slow procession, and the garments they wear reveal real flesh and limbs beneath them. The carving of this drapery invites a play of light and shadow that further activates the surface, increasing the sense of movement.

Perhaps because the human figure has traditionally been one of the chief subjects of sculpture, movement is one of the defining characteristics of the medium. Even in relief sculptures it is as if the figures want to escape the confines of their base. Sculpture in-the-round literally demands movement. It is meant to be seen from all sides, and the viewer must move around it. Giovanni da Bologna’s The Rape of the Sabine Women (Fig. 365) is impossible to represent in a single photograph. As its figures rise in a spiral, the sculpture changes dramatically as the viewer walks around it and experiences it from each side. It is in part the horror of the scene that lends the sculpture its power, for as it draws us around it, in order to see more of what is happening, it involves us both physically and emotionally in the scene it depicts.

Fig. 365 Giovanni da Bologna, The Rape of the Sabine Women, completed 1583. Marble, height 13 ft. 6 in. Loggia dei Lanzi, Florence. Alinari/Art Resource, New York.
Looked at from different points of view, David Smith’s *Blackburn: Song of an Irish Blacksmith* (Figs. 366 and 367) appears to be two entirely different works of art. The frontal view is airy and open, the work seeming to float in space like a series of notes and chords, while the profile view reveals the sculpture as densely compacted, a confusing jumble of forms from which two seem to want to escape, one at the top left, the other on the extreme right. The frontal view is almost symmetrical, the profile view radically asymmetrical.

The viewer is even more engaged in the other sculptural media we will discuss in this chapter—environments. An environment is a sculptural space into which you can physically enter either indoors, where it is generally referred to as an installation, or out-of-doors, where its most common form is that of the earthwork. With these terms in mind—relief sculpture, sculpture in-the-round, and environments—we can now turn to the specific methods of making sculpture.

**CARVING**

Carving is a subtractive process in which the material being carved is chipped, gouged, or hammered away from an inert, raw block of material. Wood and stone are the two most common carving materials. Both materials present problems for the artist to solve. Sculptors who work in wood must pay attention to the wood’s grain, since wood will only split in the direction it grew. To work “against the grain” is to risk destroying the block. Sculptors who work in stone must take into account the different characteristics of each type of stone. Sandstone is gritty and coarse, marble soft and
crystalline, granite dense and hard. Each must be dealt with differently. For Michelangelo, each stone held within it the secret of what it might become as a sculpture. “The best artist,” he wrote, “has no concept which some single marble does not enclose within its mass. . . . Taking away . . . brings out a living figure in alpine and hard stone, which . . . grows the more as the stone is chipped away.” But carving is so difficult that even Michelangelo often failed to realize his concept. In his “Atlas” Slave (Fig. 368), he has given up. The block of stone resists Michelangelo’s desire to transform it, as if refusing to release the figure it holds enslaved within. Yet, arguably, the power of Michelangelo’s imagination consists in his willingness to leave the figure unrealized. Atlas, condemned to bearing the weight of the world on his shoulders forever as punishment for challenging the Greek gods, is literally held captive in the stone.

Nativity (Fig. 369), by the Taos, New Mexico-born Hispanic sculptor Patrocinio Barela, is carved out of the aromatic juniper tree that grows across the arid landscape of the Southwest. Barela’s forms are clearly dependent on the original shape of the juniper itself. The lines of his figures, verging on abstraction, follow the natural contours of the wood and its grain. The group of animals at the far left, for instance, are supported by a natural fork in the branch that is incorporated into the sculpture. The human figures in Barela’s work are closely related to santos, images of the saints. Those who carve santos are known as santeros. Both have been an important part of Southwestern Hispanic culture since the seventeenth century, serving to give concrete identity to the abstractions of Catholic religious doctrine. By choosing to work in local wood, Barela ties the local world of the everyday to the universal realm of religion, uniting material reality and the spiritual.
This desire to unify the material and the spiritual worlds has been a goal of sculpture from the earliest times. In Egypt, for example, stone funerary figures (Fig. 370) were carved to bear the *ka*, or individual spirit, of the deceased into the eternity of the afterlife. The permanence of the stone was felt to guarantee the *ka*’s immortality. For the ancient Greeks, only the gods were immortal. What tied the world of the gods to the world of humanity was beauty itself, and the most beautiful thing of all was the perfectly proportioned, usually athletic male form.

Egyptian sculpture was known to the Greeks as early as the seventh century B.C.E., and Greek sculpture is indebted to it, but the Greeks quickly evolved a much more realistic, or *naturalistic* style. In other words, compared with the rigidity of the Egyptian figures, this *Kouros*, or youth (Fig. 371), is both more at ease and more lifelike. Despite the fact that his feet have been lost, we can see that the weight of his body is on his left leg, allowing his right leg to relax completely. This youth, then, begins to move—we see him shift his weight to his left foot to take a step in one of the earliest examples of the principle of *ponderation*, or weight shift. The sculpture begins to be animated, to portray not just the figure but its movement. It is as if the stone has begun to come to life. Furthermore, the *Kouros* is much more anatomically correct than his Egyptian forebear. In fact, by the fifth century B.C.E., the practice of medicine had established itself as a respected field of study in Greece, and anatomical investigations were commonplace. At the time that the *Kouros* was sculpted, the body was an object of empirical study, and its parts were understood to be unified in a single, flowing harmony.

This flowing harmony was further developed by Praxiteles, without doubt the most famous sculptor of his day. In works such as...
Hermes with the Infant Dionysos (Fig. 372), he shifted the weight of the body even more dynamically, so that Hermes’s weight falls on his right foot, raising his right hip. This shift in weight is countered by a turn of the shoulders, so that the figure stands in a sort of S-curve. Known as contrapposto, or counter-balance, this pose became a favorite in the Renaissance, as artists strove to achieve greater and greater naturalistic effects.

Such naturalism is perhaps nowhere more fully realized in Greek sculpture than in the grouping Three Goddesses (Fig. 373) on the east pediment, or triangular roof gable, of the Parthenon. Though actually freestanding when seen from the ground, as it is displayed today in the British Museum, with the wall of the pediment behind them, the goddesses—commonly believed to be Aphrodite, the goddess of beauty, her mother Dione, and Hestia, the goddess of the hearth—would have looked as if they had been carved in high relief. As daylight shifted across the surface of their bodies, it is easy to imagine the goddesses seeming to move beneath the swirling, clinging, almost transparent folds of cloth, as if brought to life by light itself.
Stone is a symbol of permanence, and of all stones, black granite is one of the hardest and most durable. Thus, in 1988, when sculptor Jim Sardonis chose the stone out of which to carve his tribute to the whale, *Reverence* (Fig. 375), black granite seemed the most suitable medium. Not only was its color close to that of the whales themselves, but the permanence of the stone stood in stark contrast to the species’ threatened survival. Sardonis wanted the work to have a positive impact. He wanted it to help raise the national consciousness about the plight of the whale, and he wanted to use the piece as a means to raise funds for both the Environmental Law Foundation and the National Wildlife Federation, organizations that both actively engaged in wildlife conservation efforts.

The idea for the sculpture first came to Sardonis in a dream—two whale tales rising out of the sea. When he woke he saw the sculpture as rising out of the land, as if the land was an imaginary ocean surface. And, surprisingly, whales were not unknown to the area. In 1849, while constructing the first railroad between Rutland and Burlington, Vermont, workers unearthed a mysterious set of bones near the town of Charlotte. Buried nearly ten feet below the surface in a thick blue clay, they were ultimately determined to be the bones of a “beluga” or “white” whale, an animal that inhabits arctic and subarctic marine waters. Because Charlotte is far inland (over 150 miles from the nearest ocean), early naturalists were at a loss to explain the bones of a marine whale buried beneath the fields of rural Vermont. But the Charlotte whale was preserved in the sediments of the Champlain Sea, an arm of the ocean that extended into the Champlain Valley for 2,500 years following the retreat of the glaciers 12,500 years ago.

Sculptures of the size that Sardonis envisioned are not easily realized without financial backing. A local developer, who envisioned the piece installed at the entrance of a planned motel and conference center supported the idea, and Sardonis was able to begin. The piece would require more space, and more complicated equipment, than Sardonis had available in
his own studio, so he arranged to work at Granite Importers, an operation in Barre, Vermont, that could move stones weighing twenty-two and fourteen tons respectively and that possessed diamond saws as large as eleven feet for cutting the stones.

Sardonis recognized that it would be easier to carve each tail in two pieces, a tall vertical piece and the horizontal flukes, so he began by having each of the two stones cut in half by the eleven-foot saw. Large saws roughed out the shapes, and then Sardonis began to work on the four individual pieces by hand (see Fig. 374). As a mass, such granite is extremely hard, but in thin slabs, it is relatively easy to break away. The sculptor’s technique is to saw the stone, in a series of parallel cuts, down to within two to six inches of the final form, then break each piece out with a hammer. This “cut-and-break” method results in an extremely rough approximation of the final piece that is subsequently realized by means of smaller saws and grinders.

When the pieces were finally assembled, they seemed even larger to Sardonis than he had imagined. But as forms, they were just what he wanted: As a pair, they suggest a relationship that extends beyond themselves to the rest of us. The name of the piece, *Reverence*, suggests not only a respect for nature, but a respect tinged with awe, not only for the largest mammals on the planet, but for the responsibility we all share in protecting all of nature. The whale, as the largest creature, becomes a symbol for all species and for the fragility and interconnection of all life on earth.

The project had taken almost a year, and by mid-summer 1989, the site at the prospective conference center was being prepared. Though the pair of forms were installed, when funding for the conference center fell through, they were moved to a new site, just south of Burlington, Vermont, on Interstate 89, where they overlook the Champlain Valley.
MODELING

When you pick up a handful of clay, you almost instinctively know what to do with it. You smack it with your hand, pull it, squeeze it, bend it, pinch it between your fingers, roll it, slice it with a knife, and shape it. Then you grab another handful, repeat the process, and add it to the first, building a form piece by piece. These are the basic gestures of the additive process of modeling, in which a pliant substance, usually clay, is molded.

Clay, a natural material found worldwide, has been used by artists to make everything from pots to sculptures since the earliest times. Its appeal is largely due to its capacity to be molded into forms that retain their shape. Once formed, the durability of the material can be ensured by firing it—that is, baking it—at...
temperatures normally ranging between 1200 and 2700 degrees Fahrenheit in a kiln, or oven, designed especially for the process. This causes it to become hard and waterproof. We call all works made of clay ceramics.

Robert Arneson’s Case of Bottles (Fig. 376) is a ceramic sculpture. The rough handmade quality of Arneson’s work, a quality that clay lends itself to especially well, contrasts dramatically with his subject matter, mass-produced consumer products. He underscores this contrast by including in the case of Pepsi a single real 7-Up bottle. He has even allowed the work to crack by firing it too quickly. The piece stands in stark defiance to the assembly line.

Throughout history, the Chinese have made extraordinary ceramic works, including the finest porcelains of fine, pure white clay. We tacitly acknowledge their expertise when we refer to our own “best” dinner plates as “china.” But the most massive display of the Chinese mastery of ceramic art was discovered in 1974 by well diggers who accidentally drilled into the tomb of Shih Huang Ti, the first emperor of China (Fig. 377). In 221 B.C.E., Shih Huang Ti united the country under one rule and imposed order, establishing a single code of law and requiring the use of a single language. Under his rule, the Great Wall was built, and construction of his tomb required a force of over 700,000 men. Shih was buried near the central Chinese city of Xian, or Ch-in (the origin of the name China), and his tomb contained more than 6,000 lifesize, and extraordinarily life-like, ceramic figures of soldiers and horses, immortal bodyguards for the emperor. More recently, clerks, scribes, and other court figures have been discovered, as well as a set of magnificent bronze horses and chariots. Compared to Arneson’s rough work, the figures created by the ancient Chinese masters are incredibly refined, but between the two of them we can see how versatile clay is as a material.
CASTING

When the sculptor Henry Moore visited Greece in 1951, he was immediately enthralled by the use of drapery in classical sculpture. "Drapery can emphasize the tension in a figure," he wrote, "For where the form pushes outwards such as on the shoulders, the thighs, the breasts, etc., it can be pulled tight across the form (almost like a bandage)." Moore's Draped Reclining Figure (Fig. 378) was inspired by what he saw in Greece. "Although static," he said, "this figure is not meant to be in slack repose, but, as it were, alerted."

Moore’s work is cast in bronze, a metal made by mixing copper and tin. Casting is an invention of the Bronze Age (beginning approximately 2500 B.C.E.), when it was first utilized to make various utensils by simply pouring liquid bronze into open-faced molds. The technology is not much more complicated than that of a gelatin mold. You pour gelatin into the mold

Fig. 378 Henry Moore, Draped Reclining Figure, 1952–1953.

Fig. 379 Girl Running, Greece, probably Sparta, c. 500 B.C.E.

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and let it harden. When you remove the gelatin, it is shaped like the inside of the mold. Small figures made of bronze are similarly produced by making a simple mold of an original modeled form, filling the mold with bronze, and then breaking the mold away. The early Greek Girl Running (Fig. 379) is a small, solid, cast-bronze figure almost certainly made by this most straightforward of bronze-casting methods.

As the example of gelatin demonstrates, bronze is not the only material that can be cast. In the kingdom of Benin, located in southern Nigeria, on the coastal plain west of the Niger River, brass casting reached a level of extraordinary accomplishment as early as the late fourteenth century. Brass, which is a compound composed of copper and zinc, is similar to bronze but contains less copper and is yellower in color. When, after 1475, the people of Benin began to trade with the Portuguese for copper and brass, an explosion of brass casting occurred. Shown below is a brass head of an Oba dating from the eighteenth century (Fig. 380). The Oba is the king of a dynasty. When an Oba dies, one of the first duties of the new Oba is to establish an altar commemorating his father and to decorate it with newly cast brass heads. The heads are not portraits. Rather, they are generalized images that emphasize the king’s coral-bead crown and high bead collar, the symbols of his authority. The head has a special significance in Benin ritual. According to British anthropologist R. E. Bradbury, the head “symbolizes life and behavior in this world, the capacity to organize one’s actions in such a way as to survive and prosper. It is one’s Head that ‘leads one through life.’ . . . On a man’s Head depends not only his own wellbeing but that of his wives and children. . . . At the state level, the welfare of the people as a whole depends on the Oba’s Head which is the object of worship at the main event of the state ritual year.”

![Fig. 380 African, Nigeria, Edo; Court of Benin, Head of an Oba, 18th century.](image)

The Oba head is an example of one of the most enduring, and one of the most complicated processes for casting metal. The lost-wax method, also known as *cire-perdue*, was perfected by the Greeks if not actually invented by them. Because metal is both expensive and heavy, a technique had to be developed to create hollow images rather than solid ones. The diagram to the left (Fig. 381) schematizes the process in simplified terms, while the illustrations of the method on these two pages and the following (Figs. 382–384) give some indication of its actual complexity. From the *Encyclopedia of Science, the Liberal Arts, and the Mechanical Arts*, compiled in the eighteenth century by the French encyclopedist, art critic, dramatist, and writer Denis Diderot, these latter images depict the casting process of a mounted figure of the French king, Louis XIV, which was actually erected in Paris in 1699.

In the lost-wax method, the sculpture is first modeled in some soft, pliable material, such as clay, wax, or plaster in a putty state. This model looks just like the finished sculpture, but, of course, the material of which it is
composed is nowhere near as durable as metal. As the process proceeds, this core is at least theoretically disposable, though many sculptors, including Auguste Rodin (see Fig. 259), retained them for possible re-casting.

A mold is then made of the model (today, synthetic rubber is most commonly used to make this mold), and when it is removed, we are left with a **negative** impression of the original—in other words, something like a gelatin mold of the object. Molten wax is then poured or brushed into this impression to the thickness desired for the final sculpture—about an eighth of an inch. The space inside this wax lining is filled with an **investment**—a mixture of water, plaster, and powder made from ground-up pottery. The mold is then removed, and we are left with a wax casting, identical to the original model, that is filled with the investment material. Rods of wax are then applied to the wax casting. They stick out from it like giant hairs. They will carry off melted wax during baking and will eventually provide channels through which the molten bronze will be poured. Figure 382 depicts the wax model of the statue of Louis XIV surrounded by a latticework of wax channels. Note how the channels descend from the top, where the bronze will eventually be poured. The statue’s surface is a thin layer of wax supported by the investment. Bronze pins have been driven through the wax into the investment in order to hold investment, casting, and channels in place.

This wax cast, with its wax channels, is now ready to be covered with an outer mold of investment. In the left panel of Figure 383, we see a cutaway of the wax cast surrounded by the investment. When this outer mold cures, it is then baked in a kiln at a temperature of 1500°F, with the wax replica inside it. The wax rods melt, providing channels for the rest of the wax to run out as well—hence the term **lost-wax**. A thin space where the wax once was now lies empty between the inner core and the outer mold, the separation maintained by the bronze pins. The right hand side of Figure 383 shows the burned-out mold ready to be lowered into the casting pit, its exterior reinforced by iron bands.
In Figure 384, the bronze pour is about to take place. The casting pit is located beneath the foundry floor, where the mold is encased in sand. The large box in the background is the furnace, where the bronze is melted. Molten bronze is poured into the casting gate, the large opening in the top of the mold directly in front of the furnace, filling the cavity where the wax once was. Hence, many people refer to casting as a replacement method—bronze replaces wax. When the bronze has cooled, the mold and the investment are removed, and we are left with a bronze replica of the wax form complete with the latticework of rods. The rods are cut from the bronze cast and the surface smoothed and finished.

Large pieces such as Moore’s Draped Reclining Figure (Fig. 378) must be cast in several pieces and then welded together. Bronze is so soft and malleable that the individual pieces can easily be joined in either of two ways: pounded together with a hammer, the procedure used in Greek times, or welded, the more usual procedure today. Finally, the shell is reassembled to form a perfect hollow replica of the original model. In fact, when Moore saw the torso part of his Draped Reclining Figure, cast separately from the rest, he was struck by what he called “its completeness and impressiveness just as a thing in its own right.” Thus, after the Draped Reclining Figure was completed, he had a wax version of the figure’s torso made, and he reworked it, alternately modeling and carving it until it looked appropriately poised in an upright position. The resulting work, Draped Torso (Fig. 385), looks like a piece of medieval body armor, and it is, in fact, possible that the process of making body armor might have suggested to the Greeks that the living human body could be used to create molds for cast bronze sculptures, such as the magnificent Zeus we described in Chapter 5 (Fig. 118).

Contemporary sculptor Tom Morandi does, in fact, use living humans to cast his aluminum sculptures (Fig. 386). At the Oregon State Department of Human Resources in Salem, Oregon, he asked for volunteers from among the department’s employees to submit themselves to the somewhat claustrophobic process of having their entire bodies, including clothing, serve as the original cores for the casts. Molds
were literally fitted to the subjects’ faces, hands, and clothed bodies. Because they are cast from aluminum and are thus very light-weight, Morandi was able to hang the sculptures from pillars at the second-story level of the building’s lobby. They serve to elevate everyday work and everyday people to the condition of art. Morandi’s sculptures both dignify the work of the Department of Human Resources, and honor it.

**ASSEMBLAGE**

Many of the same thematic concerns that we saw in Michelangelo’s “Atlas” Slave (Fig. 368) are at work in David Hammons’s *Spade with Chains* (Fig. 387). Both specifically address the issue of enslavement. By means of assemblage—creating a sculpture by compiling objects taken from the environment—Hammons has combined “found” materials, a common spade and a set of chains, into a face that recalls an African mask. The piece represents a wealth of transformations. Just as Michelangelo could see in the raw block of stone the figure within, Hammons can see, in the most common materials of everyday life, the figures of his world. This transformation of common materials into art is a defining characteristic of assemblage. As a process, assemblage evokes the myth of the phoenix, the bird that, consumed by fire, is reborn out of its own ashes. That rebirth, or rejuvenation, is also expressed at a cultural level in Hammons’s work. The transformation of the materials of slave labor—the spade and the chain—into a mask is an affirmation of the American slave’s African heritage. The richness of this transformation is embodied in the double meaning of the word “spade”—at once a racist epithet and the appropriate name of the object in question. But faced with this image, it is no longer possible, in the words of a common cliché, to “call a spade a spade.” The piece literally liberates us from that simple and reductive possibility.
To the degree that they are composed of separately cast pieces later welded together, works like Moore’s *Draped Reclining Figure* (Fig. 378) and Morandi’s *Work* (Fig. 386), might themselves seem to be assemblages. But it is better to think of them as *constructions*—works in which the artist forms all of the parts that are put together rather than finding the parts in the world. On the other hand, H. C. Westermann’s *Memorial to the Idea of Man If He Was an Idea* (Fig. 388) is assembled from a number of found parts, including bottle caps and cast-tin toys, in addition to its carefully crafted wooden construction. Westermann is an artist whose work comments constantly on Western “values,” especially those that have led to such conflicts as the Korean and Vietnam Wars, the first of which he fought in. The figure’s war-like nature is emphasized by the fortress that forms the top of its head, and its “resemblance” to the United States is underscored by its red, white, and blue color scheme. Westermann’s “Idea of Man” is also a recognizable image of the one-eyed cyclops Polyphemus of Homeric myth, the giant who captures Odysseus and his men on their way home from the notoriously futile Trojan War. In order to escape Polyphemus, who feasts on humans (note the figure gesturing helplessly in the cyclops’s mouth), Odysseus and his men blind him, then escape by hanging from the underbellies of sheep as Polyphemus rages after them. The two toys inside Westermann’s “war chest” re-enact this, a cast-tin headless baseball player swinging his bat at a wooden trapeze artist hanging from the top of the interior space. In the bottom half of the “war chest,” a black Death Ship sinks into a sea of bottle caps, symbolizing the economic forces that lead to war. Even Westermann’s own initials,
inscribed in bottlecaps on the inside of the door, serve less as a signature than an ironic commentary on the destructive role of the ego in realizing any “idea of man.”

Another assemblage, Clyde Connell’s Swamp Ritual (Fig. 389), is fabricated of parts from rusted-out tractors and machines, discarded building materials and logs, and papier-mâché made from the classified sections of the Shreveport Journal and Times. The use of papier-mâché developed out of Connell’s desire to find a material capable of binding the wooden and iron elements of her work. By soaking the newsprint in hot water until its ink began to turn it a uniform gray, and then mixing it with Elmer’s Glue, she was able to create a claylike material possessing, when dry, the texture of wasps’ nests or rough gray stone.

Connell developed her method of working very slowly, over the course of about a decade, beginning in 1959 when, at age fifty-eight, she moved to a small cabin on Lake Bistineau, seventeen miles southeast of Shreveport, Louisiana. She was totally isolated. “Nobody is going to look at these sculptures,” she thought. “Nobody was coming here. It was just for me because I wanted to do it. . . . I said to myself, ‘I’m just going to start to make sculpture because I think it would be great if there were sculptures here under the trees.’ ”

In the late 1960s, Connell, by then in her late sixties, discovered the work of another assembler of nontraditional materials, the much younger artist Eva Hesse, who died at age thirty-four in 1970 (see the Works in Progress spread on the following two pages). Hesse’s work is marked by its use of the most outlandish materials—rope, latex, rubberized cheesecloth, fiberglass, and cheap synthetic fabrics—which she used in strangely appealing, even elegant, assemblages. Connell particularly admired Hesse’s desire to make art in the face of all odds. She sensed in Hesse’s work an almost obstinate insistence on being: “No matter what it was,” she said about Hesse’s work, “it looked like it had life in it.” Connell wanted to capture this sense of life in her own sculpture—what she calls Hesse’s “deep quality.” In Swamp Ritual, the middle of Connell’s figure is hollowed out, creating a cavity filled with stones. Rather than thinking of this space in sexual terms—as a womb, for instance—it is, in Connell’s words, a “ritual space” in which she might deposit small objects from nature. “I began to think about putting things in there, of having a gathering place, not for mementos but for things you wanted to save. The ritual place is an inner sanctuary. . . . Everybody has this interior space.”
Between September 1965 and her death in May 1970, Eva Hesse completed over 70 sculptural works. *Contingent* (Fig. 392) is one of the last four pieces she made. For most of the last two years of her life she was ill, suffering from the effects of a brain tumor that was not diagnosed until April 1969. Clyde Connell’s admiration for her work is partly a response to Hesse’s heroic insistence on making art in the face of her illness and, to use Connell’s word, infusing it with “life.” But it is also a result of Hesse’s feminist sensibilities, for Hesse was a feminist long before the Women’s Movement of the early 1970s. “A woman is side-tracked by all her feminine roles,” she wrote in 1965. “She’s at a disadvantage from the beginning. . . . She also lacks the conviction that she has the ‘right’ to achievement. . . . [But] we want to achieve something meaningful and to feel our involvements make of us valuable thinking persons.” *Contingent* embodies Hesse’s personal strength.

Hesse’s first ideas for the piece took the form of drawing (Fig. 390). “I always did drawings,” Hesse said, “but they were always separate from the sculpture. . . . They were
WORKS IN PROGRESS

just sketches. . . . [A drawing] is just a quickie to develop it in the process rather than working out a whole model in small and following it—that doesn’t interest me.” In the drawing, it appears as if Hesse initially conceived of the piece as hanging against the wall, but by the time she was fabricating it, she had turned it sideways, as her “test piece” (Fig. 391) shows.

The final work consists of eight cheesecloth and fiberglass sheets that catch light in different ways, producing different colors, an effect almost impossible to capture in a photograph. The sheets seem at once to hang ponderously and to float effortlessly away. Hesse’s catalogue statement for the first exhibition of the piece at Finch College in the fall of 1969 speaks eloquently of her thinking about the work:

Began somewhere in November-December, 1968.
Worked.
Collapsed April 6, 1969. I have been very ill.
Statement.
Resuming work on piece,
have one complete from back then. . . .
Piece is in many parts.
Each in itself is a complete statement. . . .
textures, coarse, rough, changing.

see through, not see through, consistent, inconsistent.
they are tight and formal but very ethereal. sensitive. fragile. . . .
not painting, not sculpture. it’s there though. . . .
non, nothing,
everything, but of another kind, vision, sort. . . .
I have learned anything is possible. I know that.
that vision or concept will come through total risk,
freedom, discipline.
I will do it.

Fig. 392 Eva Hesse, Contingent, 1969.
Reinforced fiberglass and latex over cheesecloth, height each of 8 units, 114–118 in.; width each of 8 units, 36–48 in.
The larger a work, the more our visual experience of it depends on multiple points of view. Since the late 1960s, one of the focuses of modern sculpture has been the creation of large-scale out-of-doors environments, generally referred to as **earthworks**. We have already seen several examples. Both Christo’s *Umbrellas* (Figs. 1 and 2) and Robert Smithson’s *Spiral Jetty* (Fig. 6) are classic examples of the medium, as is Walter de Maria’s *Las Vegas Piece* (Fig. 293). As the lines drawn on the landscape in Nazca, Peru, indicate, (Fig. 294) humans have set out to sculpt the landscape, and to impose sculpture into the landscape, since the earliest times.

Nancy Holt’s *Sun Tunnels* (Figs. 393 and 394) consists of four twenty-two-ton concrete tunnels aligned with the rising and setting of the sun during the summer and winter sol-
stices. The holes cut into the walls of the tunnels duplicate the arrangement of the stars in four constellations—Draco, Perseus, Columba, and Capricorn—and the size of each hole is relative to the magnitude of each star. The work is designed to be experienced on site, imparting to viewers a sense of their own relation to the cosmos. “Only 10 miles south of Sun Tunnels,” Holt writes, “are the Bonneville Salt Flats, one of the few areas in the world where you can actually see the curvature of the earth. Being part of that kind of landscape . . . evokes a sense of being on this planet, rotating in space, in universal time.”

In an isolated region near the remote town of Quemado, New Mexico, Walter de Maria has created an environment entitled Lightning Field (Fig. 395). Consisting of 400 steel poles laid out in a grid over nearly one square mile of desert, the work is activated between three and thirty times a year by thunderstorms that cross the region. At these times, lightning jumps from pole to pole across the grid in a stunning display of pyrotechnics, but the site is equally compelling even in the clearest weather.

Visitors to the Lightning Field are met in Quemado and driven to the site, where they are left alone for one or two nights in a comfortable cabin at its edge. De Maria wants visitors to his environment to experience the space in relative isolation and silence, to view it over a number of hours, to see the stainless-steel poles change as the light and weather change, to move in and out of the grid at their leisure. He wants them to experience the infinite, to have some sense, posed in the vastness around them, of limitless freedom and time without end.
When artists manipulate the landscape at the scale of De Maria, it becomes clear that their work has much in common with landscape design in general, from golf courses to parks to landfills. Indeed, part of the power of their work consists in the relationship they establish and the tension they embody between the natural world and civilization. A series of interventions conceived by sculptor Karen McCoy for Stone Quarry Hill Art Park in Cazenovia, New York, including the grid made of arrowhead leaf plants in a small pond, illustrated here (Figs. 396 and 397), underscores this. The work was guided by a concern for land use and was designed to respond to the concerns of local citizens who felt their rural habitat was fast becoming victim to the development and expansion of nearby Syracuse, New York. Thus McCoy’s grid purposefully evokes the orderly and regimented forces of civilization, from the fence rows of early white settlers to the street plans of modern suburban developers, but it represents these forces benignly. The softness and fragility of the grid’s flowers, rising delicately from the quiet pond, seem to argue that the acts of man can work at one with nature, rather than in opposition to it.

**THE CRITICAL PROCESS**

**Thinking About Sculpture**

Anthony Caro’s *Early One Morning* (Figs. 398 and 399) is made of sheet metal, I-beams, pipe, and bolts. Through the materials of which it is made, the materials of contemporary industrial construction, it boldly declares itself separate from the natural world, the exact opposite of a work like Karen McCoy’s. What other elements contribute to this feeling? Consider, for one thing, that Caro did not think of this work in any context other than an interior room. “I prefer to think of my sculptures indoors,” he says. Why would *Early One Morning* lose much of its force outside, in a sculpture garden, for instance? Granted how different it is from McCoy’s piece, what does it have in common with her work? What do you make of the title? Think particularly about the experience of viewing it. You might find it...
useful as well to compare it to David Smith’s *Blackburn: Song of the Irish Blacksmith* (Figs. 366 and 367). (In the early sixties, when this piece was made, Caro was deeply influenced by Smith.) How would you describe each of the two views of the piece as depicted here? Not only is the work an assemblage of disparate elements, but our visual experience of it is itself an assemblage, a construction of multiple points of view. Still, it is not chaotic. What unifies it?

For all that it shares with Smith’s *Blackburn*, Caro’s *Early One Morning* is fundamentally different. Smith’s work is figurative, or at least anthropomorphic—that is, it is human-like. How would you describe Caro’s? What is the relation of each piece to the ground? Caro’s work does not rest on a base, while Smith’s does. What difference does this make? Think of the base as a kind of altar, upon which the sculpture rests. By losing it, what does Caro gain?