As postwar Western Europe and the United States increasingly relaxed from the economic stress and political turbulence of the thirties and forties, the rare synthesis of mystical aspiration and physical gesture realized by the Abstract Expressionist generation began to break apart, releasing its constituent elements to follow their own separate, if not altogether unrelated, paths. Some of these, like Pop art and New Realism (see chapter 21), led to Neo-Dada attempts to make art ever more inclusive of the post-ordinary reality. Abstract Expressionist action painting highlighted the physical engagement of the artist in making art and the role of chance, two elements that became central to Performance art, which took the further step of involving participants and spectators in the creative process. A different side of the Abstract Expressionist legacy emerged in systematic campaigns of excluding from art all but its most essential properties. By the end of the sixties, some avant-garde artists and critics would contend that art could be distilled into idea alone.

Something of the dual response to fifties art—to its creators’ “elitist” sense of themselves as existential heroes and of their works as sacred objects—has already been seen in the career of Yves Klein, who, on the one hand, “organized” an exhibition that consisted of nothingness (le vide) and, on the other hand, made sculpture in the Duchampian “assisted readymade” fashion, by mounting blue-sprayed sponges on pedestals. Klein emphasized the performative nature of making art—when he made paintings by exposing a colored support to such external, non-art elements as fire and rainwater or by emptying the canvas of all but its irreducible condition of flat, monochrome, rectangular shape, he briefly merged extremes of both materiality and immateriality that would characterize sixties art (see figs. 21.60, 21.63). Klein’s investigations of pure abstraction (for example, his emphasis on the chemical pigment that he used for his deep, meditative blue) exemplified a tendency toward progressive simplification that by the end of the decade would be known by such terms as Minimalism, ABC art, or Primary Structures. While these developments may be seen as a necessary correction of fifties heroics, the new abstractionists would evince heroics of their own, both in the sheer size of their works and in their ambition to provide an alternative to the dominant critical discourse of Clement Greenberg and his followers. Greenberg had defined modernism as the consistent and exclusive engagement of painting and sculpture with the qualities essential to them—namely, their optical surfaces—believing that “what counts first and last in art is quality,” judged by formal aesthetic standards.

Pop art, thanks to its ability to entertain a newly affluent, status-conscious mass audience, may have earned its title by becoming the most popular development ever to have occurred in the higher reaches of culture. During the sixties, however, before the underlying complexity of Pop had been fully appreciated, it was abstraction that dominated within the world of art itself, mainly because its essential sobriety and internal processes of self-purification engaged the attention of the most serious critics and thinkers.

**Drawing the Veil: Post-Painterly Color Field Abstraction**

A number of exhibitions held in the sixties drew attention to certain changes that were occurring in American painting. Between 1959 and 1960, Clement Greenberg was instrumental in mounting a series of solo exhibitions at the New York gallery Trench and Company for such artists as Barnett Newman, David Smith, Morris Louis, Kenneth Noland, and Jules Olitski. During the next few years, several museums followed suit with exhibitions designed to draw attention to new directions in American art. Among these shows were American Abstract Expressionists and Imagists at New York’s Guggenheim Museum in 1961; Toward a New Abstraction at New York’s Jewish Museum in 1963; Post-Painterly Abstraction, organized in 1964 by Clement Greenberg for the Los Angeles County Museum of Art; and Systemic Painting, curated in 1966 by Lawrence Alloway at the Guggenheim Museum.
These exhibitions illustrated that many young artists were attempting to break away from what they felt to be the tyranny of Abstract Expressionism, particularly in its emphasis on the individual brush gesture. Some of these artists turned to representational art forms ranging from minutely observed figuration to assemblages to Pop art, while others sought new means of retinal stimulation through Op art, or light and motion. Most suggestive was the apparent development of abstract painting to which a number of names have been applied, including Abstract Imagism, Post-Painterly Abstraction, and, most commonly, Color Field painting, (sometimes simplified to Field painting). Still other terms have been applied to various aspects of this direction during the sixties—such as Systemic, Hard-Edge, and Minimalist painting. These labels, referring to various types of abstract painting, do not necessarily encompass all the same artists or all the directions involved—which range from forms of all-over painting to almost blank canvases. The emphasis throughout, however, is on abstract painting, in distinction to figuration, optical illusion, object making, fantasy, light, motion, or any of the other tendencies away from the act of painting itself.

Among all the painters working against the current of gestural Abstract Expressionism in the late fifties there was a general move (as Greenberg pointed out) to openness of design and image. Many of the artists turned to the technique of staining raw canvas and moved toward a clarity and freshness that differentiated their works from those of the Abstract Expressionists, which were characterized by compression and brushwork. The directions and qualities suggested in the work of these artists—some already well established, some just beginning to appear on the scene—were to be the dominant directions and qualities in abstract painting during the sixties.

Francis and Mitchell
Greenberg's inclusion of Sam Francis (1923–94) among his “Post-Painterly” abstractionists may seem somewhat surprising, since Francis during the fifties was associated with American Abstract Expressionism and Art Informel in Paris, where he lived until 1961. As Greenberg explained in the introduction to the exhibition catalogue of Post-Painterly Abstraction, Abstract Expressionism was characterized by its “painterly” quality, a term inspired by the use of the German word malertisch by the Swiss art historian Heinrich Wölfflin to describe Baroque art. Just as Wölfflin contrasted the painterly quality of the Baroque with the crisp linearity of High Renaissance art, so Greenberg identified Post-Painterly Abstraction with more sharply defined compositions and less emphasis on evidence of the artist’s gesture. According to Greenberg: “By contrast with the interweaving of light and dark gradations in the typical Abstract Expressionist picture, all the artists in this show move towards a physical openness of design, or towards linear clarity, or towards both.”

Despite Francis’s association with Abstract Expressionism or painterly art, the direction of his painting had been toward that compositional openness and formal clarity of which Greenberg spoke. Shining Back (fig. 22.1), 1958, presents an open structure that is animated, but not obscured, by Francis’s continued use of brush gesture, the drip, and the spatter. In later works, despite lingering vestiges of spatters, the essential organization is that of a few free but controlled color-shapes—red, yellow, and blue—defining the limits of a dominant white space. Francis’s paintings of the early seventies (fig. 22.2) increasingly emphasized the edge to the point where his paint spatters at times surrounded a clear or almost clear center area of canvas. At times he uses a precise linear structure as a control for his free patterns of stains and spatters, and has created an elegant and lyrical form of abstract art.

An artist also sometimes categorized as a Color Field painter is Joan Mitchell (1926–92), one of the younger artists associated with Abstract Expressionism during the fifties, along with Francis and others. From the fifties onward, Mitchell demonstrated a particular interest in evoking her relationship to landscape, initially referring to both natural and urban environments, often in terms of a
remembered time and place, as in *August, Rue Daguerre* (1957). Mitchell moved permanently to France in 1959, living first in Paris and then in Vétheuil, where she continued to pursue her own directions in painting, undeterred by the popularity of Pop and Op art. In the mid-sixties, Mitchell expunged references to urban settings from her work and from then on turned predominantly to nature for inspiration (fig. 22.3).
Frankenthaler, Louis, and Olitski
An important figure in the transition between Abstract Expressionism and Color Field painting is Helen Frankenthaler (b. 1928). Frankenthaler was the first American painter after Jackson Pollock to see the implications of the color staining of raw canvas to create an integration of color and ground in which foreground and background cease to exist. *Mountains and Sea*, 1952, her first “stained” painting, marked a turning point in her career. Having just returned from a vacation in Nova Scotia, the artist found herself experimenting with composition and consistency of paint. She recounts:

Before, I had always painted on sized and primed canvas—but my paint was becoming thinner and more fluid and cried out to be soaked, not resitting. In *Mountains and Sea*, I put in the charcoal line gestures first, because I wanted to draw in with color and shape the totally abstract memory of the landscape. I spattered the drawing in paint from the coffee cans. The charcoal lines were original guideposts that eventually became unnecessary.

During a visit to Frankenthaler’s studio in 1953, Morris Louis was so affected by *Mountains and Sea* that he and Kenneth Noland began to stain canvases themselves, establishing their own staining techniques. Frankenthaler’s role as the originator of Post-Painterly Color Field painting has been obscured by Greenberg’s championing of Louis, Olitski, and Noland as its major exponents in the late fifties—a distortion that might be explained by Greenberg and Frankenthaler’s personal history (they had an affair in the early fifties, which ended when she left him).

Frankenthaler employs an open composition, frequently building around a free-abstract central image and also stressing the picture edge (fig. 22.4). The paint is applied in uniformly thin washes. There is little, sometimes no, sense of paint texture—a general characteristic of Post-Painterly Color Field painting—although there is some gradation of tone around the edges of color-shapes, giving them a sense of detachment from the canvas. The irregular central motifs float within a rectangle, which, in turn, is surrounded by irregular light and dark frames. These frames create the feeling that the center of the painting is opening up in a limited but defined depth.

In 1960 Frankenthaler made her first prints. Since then, she has worked with a variety of printmaking techniques in addition to painting, using each of these media to explore pictorial space through the interaction of color and line on a particular surface. One of her most successful prints is *Essence Mulberry*, executed in 1977 (fig. 22.5). Inspired by an exhibit of medieval prints at the Metropolitan Museum of Art, Frankenthaler combined the shades of mulberry, blue,

22.4 Helen Frankenthaler, *Interior Landscape*, 1964. Acrylic on canvas, 8′ 8″ × 7′ 8″ (2.7 × 2.4 m). San Francisco Museum of Modern Art.

yellow, and brown. The effect of the blended colors is as delicate and luminescent as that of her paintings.

Morris Louis (1912–62) was one of the talented American painters to emerge in the fifties. Living in Washington, D.C., somewhat apart from the New York scene and working almost in isolation, he and a group of artists that included Kenneth Noland were central to the development of Color Field painting. The basic point about Louis’s work and that of other Color Field painters, in contrast to most of the other new approaches of the sixties, is that they continued a tradition of painting exemplified by Pollock, Newman, Still, Motherwell, and Reinhardt (see chapter 19). All of these artists were concerned with the classic problems of pictorial space and the statement of the picture plane. Louis characteristically applied extremely runny paint to an unstretched canvas, allowing it to flow over the inclined surface in effects sometimes suggestive of translucent color veils. The importance of Frankenthaler’s example in Louis’s development of this technique has been noted. However, even more so than Frankenthaler, Louis eliminated the brush gesture, although the flat, thin pigment is at times modulated in billowing tonal waves (fig. 22.6). His “veil” paintings consist of bands of brilliant, curving color-shapes submerged in translucent washes through which they emerge principally at the edges. Although subdued, the resulting color is immensely rich. In another formula, the artist used long, parallel strips of pure color arranged side by side in rainbow effects. Although the separate colors here are clearly distinguished, the edges are soft and slightly interpenetrating (fig. 22.7).

Jules Olitski (b. 1922) might be seen as a man of romantic sensibility expressing himself through the sensu-

22.6 Morris Louis, Kaf, 1959–60. Acrylic on canvas, 8′4″ × 12′ (2.5 × 3.7 m). Collection Kimiko and John G. Powers, New York.

22.7 Morris Louis, Moving in, 1961. Acrylic on canvas, 7′3″ × 3′5″ (2.2 × 1.05 m). André Emmerich Gallery, New York.
yellow, and brown. The effect of the blended colors is as delicate and luminescent as that of her paintings.

Morris Louis (1912–62) was one of the talented American painters to emerge in the fifties. Living in Washington, D.C., somewhat apart from the New York scene and working almost in isolation, he and a group of artists that included Kenneth Noland were central to the development of Color Field painting. The basic point about Louis’s work and that of other Color Field painters, in contrast to most of the other new approaches of the sixties, is that they continued a tradition of painting exemplified by Pollock, Newman, Still, Motherwell, and Reinhardt (see chapter 19). All of these artists were concerned with the classic problems of pictorial space and the statement of the picture plane. Louis characteristically applied extremely runny paint to an unstretched canvas, allowing it to flow over the inclined surface in effects sometimes suggestive of translucent color veils. The importance of Frankenthaler’s example in Louis’s development of this technique has been noted. However, even more so than Frankenthaler, Louis eliminated the brush gesture, although the flat, thin pigment is at times modulated in billowing tonal waves (fig. 22.6). His “veil” paintings consist of bands of brilliant, curving color-shapes submerged in translucent washes through which they emerge principally at the edges. Although subdued, the resulting color is immensely rich. In another formula, the artist used long, parallel strips of pure color arranged side by side in rainbow effects. Although the separate colors here are clearly distinguished, the edges are soft and slightly interpenetrating (fig. 22.7).

Jules Olitski (b. 1922) might be seen as a man of romantic sensibility expressing himself through the sensu-
ousness of his large, assertive color areas. In earlier works he, like so many of his contemporaries, explored circle forms, but his were generally irregular, off-center, and interrupted by the frame of the picture to create vaguely organic effects reminiscent of Jean Arp. Moving away from these forms, Olitski began, in about 1963, to saturate his canvas with liquid paint, over which he rolled additional varying colors. In later works, such as *High a Yellow*, 1967 (fig. 22.8), he sprayed on successive layers of pigment in an essentially commercial process that still admitted a considerable degree of accident in surface chips and spatters. The dazzling, varied areas of paint are defined by edges or corners and perhaps internal spots of roughly modeled paint that control the seemingly limitless surfaces. Sometimes apparently crude and coloristically disturbing, Olitski's flamboyant works are nevertheless arresting.

**Poons**

In the sixties, Larry Poons (b. 1937) created an intriguing form of Systemic painting with optical-illusionistic implic-
At an Oblique Angle: Diebenkorn and Twombly

As the trend toward progressively more radical abstraction intensified throughout the sixties, urged on by doctrinaire critical support, commercial hype, and media exposure, only exceptionally strong artists could maintain their aesthetic independence from the dominant mode. Several of the most interesting figures to emerge during this period enjoyed the advantage—for purposes of their autonomy—of regular residence remote from the competitive New York art scene.

In the course of his career, which began in the forties, the work of California artist Richard Diebenkorn (1922–93) moved through three distinct phases. During the first he worked in an Abstract Expressionist vein, guided by the examples of Clyfford Still and Mark Rothko, who both taught at the California School of Fine Arts (now the San Francisco Art Institute). While the outward forms of his style would change, the artist early on discovered his most fundamental concern: to abstract from his perception of things seen in order to realize painterly, atmospheric distillations of the western American landscape. From the outset, he learned to translate sensuous, visual experience into broad fields of color structured in relation to the flatness and rectilinearity of the picture plane by a framework of firm but painterly geometry (fig. 22.10). Even as an Abstract Expressionist, Diebenkorn was, like most of his generation, a cool formalist, and in the context of his art he eschewed private, autobiographical associations in favor of meanings more generally evocative of the interaction between inner and outer worlds. This can be seen to particular advantage in Man and Woman in Large Room (fig. 22.11), executed after the artist shifted from abstraction to figuration, a change that occurred in 1954 while he was in close contact with two other California painters, David Park and Elmer Bischoff. The picture functions almost as a visual metaphor because the figures, despite the expressionist potential of their juxtaposition and handling, participate in the overall structure of the total image while also enriching its sober, contemplative mood with an undercurrent of emotional pressure. In the early sixties Diebenkorn moved on from this second, or figurative, phase and, in 1967, following his relocation to Santa Monica, began his third mode, devoted to a series of majestic nonfigurative abstractions known as the Ocean Park paintings (fig. 22.12). In variation after variation, and with Matisse as
Richard Diebenkorn, *Ocean Park*
No. 54, 1972. Oil on canvas, 8′4″ × 6′9″
(2.5 × 2.1 m), San Francisco Museum of
Modern Art.

a primary source, in addition to Mondrian,
Monet, and of course Abstract Expressionism,
Diebenkorn purified and monumentalized his
personal vocabulary of mist- and light-filled
color planes emanating from but rigorously
contained within a softly drawn architectural
scaffolding. Pentimenti (passages of paint
through which earlier paint layers are visible),
odd and oblique angles in the structural bor-
ders, and the expansiveness and close harmony
of the luminous colors work without benefit of
human images to generate a sense of tension
within the pervasive calm, a sense of presence
within figuratively empty fields.

After World War II and following a semes-
ter of study at Black Mountain College, the
slightly younger Cy Twombly (b. 1928)
established a more or less permanent base in
Rome, where he too succeeded in calmly piv-
oring his art on the convergence point of free-
dom and control, lucidity and opacity. A poet
as well as a painter and a sculptor, Twombly
found his characteristic image in a slate-gray
ground covered with white graffiti, drawings
intermingled with words and numbers, like
chalk lessons half-erased on the blackboard at

Cy Twombly, *Untitled*, 1969. Crayon and oil on canvas, 6′8″ × 8′7″
(2 × 2.6 m), The Whitney Museum of American Art, New York.
the end of a busy school day (fig. 22.13). Sometimes
snatches of personal verse, often brief quotations from a
classical source, always legible at first sight, though never
quite complete or entirely coherent on close examination,
Twombly's scribbles and scrawls activate the surface with
gestures as decisive as Pollock's, but, unlike those of
the Abstract Expressionists, they remain indeterminate.
Additionally, Twombly's images suggest a hidden narra-
tive, evoked in bold but enigmatic terms, such as the clas-
sical legend of the tragic love affair of Hero and Leander,
depicted in a three-panel series testifying to their passion
and to the fury and progressive calming of the Hellespont
in which the lovers drowned (fig. 22.14). Like many of his
paintings, Twombly's sculptures also find frequent inspira-
tion in classical sources, as in his rendition of an elongated,
delicate balanced chariot (fig. 22.15).

Forming the Unit: Hard-Edge
Painting

The term “Hard-Edge” was first used by the California
art critic Jules Langsner in 1959, and then given its current
definition by Lawrence Alloway in 1959–60. According to
Alloway, Hard-Edge was defined in opposition to geo-
metric art, in the following way: “The ‘cone, cylinder, and
sphere’ of Cézanne fame have persisted in much 20th-
century painting. Even where these forms are not purely
represented, abstract artists have tended toward a compila-
tion of separable elements. Form has been treated as dis-
crete entities,” whereas “forms are few in hard-edge and
the surface immaculate. . . . The whole picture becomes the
unit; forms extend the length of the painting or are
restricted to two or three tones. The result of this sparse-
ness is that the spatial effect of figures on a field is
avoided.” The important distinction drawn here between
Hard-Edge and the older geometric tradition is the search
for a total unity in which there is generally no foreground
or background, no “figures on a field.” During the fifties,
Ellsworth Kelly, Ad Reinhardt, Leon Polk Smith, Alexander
Liberman, Sidney Wolfson, and Agnes Martin (most of
them exhibiting at the Betty Parsons Gallery in New York)
were the principal pioneers. Barnett Newman (also show-
ing at Parsons) was a force in related but not identical space
color explorations (see fig. 19.29).

Ellsworth Kelly (b. 1923), who matured artistically in
Paris following World War II, came to be considered a
leader of the Hard-Edge faction within Color Field painting, although he himself expressed some discomfort with this label. He explained to Henry Geldzahler in 1963, "I'm interested in the mass and color, the black and white—the edges happen because the forms get as quiet as they can be." Despite the abstract appearance of much of Kelly's painting, the artist drew extensively on his observation of the natural forms around him, as in Window, Museum of Modern Art, Paris of 1949 (fig. 22.16). In 1954 the artist returned to the States, settling in New York among a group of artists, including Jasper Johns, Robert Rauschenberg, Jack Youngerman, and Agnes Martin, who, like him, resisted the dominance of Abstract Expressionism. In New York, Kelly experimented with collage and continued to develop his interest in shape and color and the relationship of figure to ground. The influence of Arp was evident at times. His paintings of the early sixties frequently juxtaposed fields of equally vibrant color, squeezing expansive shapes within the confines of a rectangular canvas (fig. 22.17). But just as the tension in these canvases suggests,
shapes frequently exploded from the rectangular frame, becoming artworks themselves that undermined the distinction between painting and sculpture. Kelly continued to work in a similar vein; he did not differentiate between his paintings and his sculptures, and some of his works are difficult to classify. Thus *Untitled (Mandorla)* of 1988 (fig. 22.18), a bronze distillation of a form common in medieval painting, gains much of its effect from its relief projection. Kelly also created freestanding sculptures, works that use forms similar to those of his paintings, although projected on an environmental scale and constructed industrially of Cor-ten steel.

Like Kelly, Jack Youngerman (b. 1926) developed his art in Paris during the postwar years, courtesy of the GI Bill, before returning to join the New York School in the fifties. He then became known for bringing a special Matisse-like rhythm and grace to the Constructivist tradition by rendering leaf, flower, or butterfly forms with the brilliantly colored flatness and clarity of Hard-Edge painting (fig. 22.19). In such work, he looked back not only to Arp and Matisse, but also to the rhapsodic, nature-focused art of painters who worked in the United States, such as Dove, O’Keeffe, and Gorky (see figs. 18.17, 18.18, 19.3). For a while, he designed his undulating silhouettes so that figure and ground appear to reverse, with negative and positive switching back and forth.

Although Kenneth Noland (b. 1924) was close to Louis during the fifties and, like him, sought through Color Field painting an essential departure from the brush-gesture mode of De Kooning or Kline, his personal solutions were quite different from those of his fellow Washingtonian. Using the same thin pigment to stain unsized canvas, Noland made his first completely individual statement when, as he said, he discovered the center of the canvas. From this point, between the mid-fifties and 1962, his principal image was the circle or a series of concentric circles exactly centered on a square canvas (fig. 22.20). Since this relation of circle to square was necessarily ambiguous, in about 1963 Noland began to experiment with different forms, first avoiding shapes placed above center, and then meticulously symmetrical chevrons starting in the upper corners and coming to a point just above the exact center of the bottom edge (fig. 22.21). The chevrons, by their placement as well as their composition, gave a new significance to the shape of the canvas and created a total, unified harmony in which color and structure, canvas plane and edges, are integrated.

In 1964 Noland was a featured painter at the United States pavilion of the Venice Biennale, and in 1965 he was given a solo exhibition at the Jewish Museum. It was about 22.19 Jack Youngerman, *Roundabout*, 1970. Acrylic on canvas, diameter 8' (2.4 m). Albright-Knox Art Gallery, Buffalo.


this time that Noland, working within personally defined limits of color and shape relationships, systematically expanded his vocabulary. The symmetrical chevrons were followed by asymmetrical examples. Long, narrow paintings with chevrons only slightly bent led to a series in which he explored systems of horizontal strata, sometimes with color variations on identical strata, sometimes with graded horizontals, as in *Graded Exposure* (fig. 22.22). In the next few years the artist moved from the solution of *Graded Exposure* to a formula of vertical or horizontal canvases in which his use of the grid allowed a dominant emphasis to fall on the framing edge. In his subsequent work, Noland has continued to explore the relationship of form and color to the edge of the canvas itself, manipulating the shape of the canvas as well as the painted surface.

**Al Held** (b. 1928) was one of the strongest of the sixties abstractionists both in his forms and in his use of color, but, unlike most of the other Color Field painters, who eliminated brushstrokes and paint texture, Held built up his paint to create a texture that added to the total sense of weight and rugged power. He worked over his paint surfaces, sometimes layering them to a thickness of an inch, although, from 1963, he sanded down the surface to a machine precision. For a period in the sixties, Held based paintings on letters of the alphabet (fig. 22.23). In these, again, the open portions of the letters were subordinated, both to hold the edges of the canvas and to establish a sense of great scale. Held focused on the powerful presence of colored forms on the canvas, rather than on the less tangible, more self-consciously optical effect of stained color preferred by artists such as Louis and Noland.

In the later sixties, Held rebelled against the modernist rejection of illusionism and resisted the pervasive reductive trend in contemporary painting. He introduced complex, apparently three-dimensional shapes into his paintings. The insistent exploration of a version of rigid geometric abstraction led Held through the refinement of his means to a
black-and-white structure. In a group of paintings of 1974 and early 1975 he presented an architecture of boxlike structures outlined in white against a uniform black ground (fig. 22.24). The title "Flemish" in the series suggests that Held, like many of his contemporaries in the seventies, had been looking at old master paintings, in this instance conceivably the works of Jan van Eyck or Rogier van der Weyden.

Along with the black paintings with white linear structures, he exhibited their counterparts, consisting of black lines on a flat white ground. In earlier examples, the perspective structures were heavily outlined. In a number of the white paintings, however, some lines became much more delicate, mixed with weightier ones. Transparent, curvilinear elements became increasingly dominant as part of the total spatial interplay.

When Held reintroduced color, he did so with a vengeance, adopting a high-keyed intensity combined with an expanded scale to give his newer paintings an almost overwhelming impact as in his fifty-five foot (16.8 m) long mural Mantegna's Edge at the Southland Center, Dallas (fig. 22.25). The color combined with his handling of line produces the paradoxical effect of clarity and ambiguity. Images constantly fail to con-form to what experience and tradition have prepared us to anticipate in the apparently logical spatial structures Held creates. And so, as within the
perpetual movement of Pollock’s calligraphic complexity, the eye gives up trying to sort out the irresolutions and accepts the experience of the total configuration.

**Seeing Things: Op Art**

Several broadly related tendencies in the painting of the sixties may be grouped under the heading of Optical (or Retinal) painting. “Optical” in this context should not be confused with the quality of opticality that Greenbergian formalists attributed to modernist painting. For them, opticality meant the sense of a flat, nonillusionistic image that seemed to deny the necessity of physical support. By contrast, the optical stimulation of Op art implied the presence of an illusion generated by the stimulation of the retina. What is called Op art overlaps at one end with light sculpture or construction (in its concern with illusion, perception, and the physical and psychological impact of color) and with the effects of light experiments on the spectator. At the other end, it impinges on some aspects of Color Field painting in its use of brilliant, unmodulated color in retinally stimulating combinations, especially as seen in the art of Larry Poons. Op art came to the forefront of the New York art world in 1965 with William Seitz’s exhibition, The Responsive Eye, at The Museum of Modern Art. Although a range of artists were included, among them Color Field painters and Hard-Edge abstractionists, such as Larry Poons, Morris Louis, Kenneth Noland, and Ellsworth Kelly, it was immediately clear that Op art represented something new. Op art actively engaged the physiology and psychology of seeing with eye-teasing arrangements of color and pattern that seemed to pulsate. Such works generated strong associations with science and technology. Interestingly, although Op art enjoyed much popular interest in the United States, it generated more serious critical acclaim in Europe, with light sculptor Julio Le Parc claiming first prize at the Venice Biennale in 1966.

Optical illusion is not new in the history of art; nor is the overlap it implies between artistic rendition and scientific theories of vision. Examples from the last five hundred years include the discovery, or rediscovery, of linear and atmospheric perspective in the fifteenth century; the interest of Impressionist and Post-Impressionist painters such as Georges Seurat in nineteenth-century theories of color and perception; and the experimentation of several Bauhaus artists, like László Moholy-Nagy and Josef Albers, with similar questions. This examination of the Optical and kinetic art of the sixties surveys some of the approaches taken by artists during this period to forms of art involving optical illusion or other specific aspects of perception (of course, as we have already seen, such concerns were not limited to Op and kinetic artists alone).

Op art also inspired a movement toward allover painting, in which a network or a mosaic of color strokes or dots covers the canvas and seems to expand beyond its limits. During the sixties Larry Poons created a seemingly hap-hazard but actually meticulously programmed mosaic of small oval shapes that vibrate intensely over a ground of strong color (see fig. 22.9). The organization of Poons’s color-shapes, worked out mathematically on graph paper, was another indication of the tendency toward systems or to what, in the sixties, was called Systemic painting.

**Vasarely**

The Hungarian-French painter **Victor Vasarely** (1908-97) was the most influential figure in the realm of Op art. Although his earlier paintings belonged in the general tradition of Concrete art, in the forties Vasarely devoted himself to Optical art and theories of perception. Vasarely’s art theories, first presented in his 1955 *Yellow Manifest*, involved the replacement of traditional easel painting by what he called “kinetic plastics.” To him, “painting and sculpture become anachronistic terms: it is more exact to speak of a bi-, tri-, and multidimensional plastic art. We no longer have distinct manifestations of a creative sensibility, but the development of a single plastic sensibility in

Triptych, engraved glass slabs, 66" × 15" (2 × 4.0 m). Private collection.
different spaces." Vasarely sought the abandonment of painting as an individual gesture, the signature of the isolated artist. In a modern, technical society, he believed that art had to have a social context; he saw the work of art as the artist's original idea rather than as an object consisting of paint on canvas. This idea, realized in terms of flat, geometric-abstract shapes mathematically organized, with standardized colors, flatly applied, could then be projected, reproduced, or multiplied into different forms—murals, books, tapestries, glass, mosaic, slides, films, or television. For the traditional concept of the work of art as a unique object produced by an isolated artist, Vasarely substituted the concept of social art, produced by the artist in full command of modern industrial communication techniques for a mass audience.

Vasarely was a pioneer in the development of almost every optical device for the creation of a new art of visual illusion. His Photographismes are black-and-white line drawings or paintings. Some of these were made specifically for reproduction, and in them Vasarely frequently covered the drawing with a transparent plastic sheet. The plastic sheet has the same design as the drawing but in a reverse, negative-positive relationship. When the two drawings—on paper and on plastic—are synchronized, the result is simply a denser version. As the plastic is drawn up and down over the paper, the design changes tangibly before our eyes. Here, literal movement creates the illusion. This and many further devices developed by Vasarely and other Op artists produced refinements of processes long familiar in games of illusion or halls of mirrors.

In his Deep Kinetic Works, Vasarely translated the principle of the plastic drawings into large-scale glass constructions, such as the 1953 Sorata-T (fig. 22.26), a standing triptych, six-and-a-half by fifteen feet (2 × 4.6 m) in dimension. The three transparent glass screens may be placed at various angles to create different combinations of the linear patterns. Such art lends itself to monumental statements that Vasarely was able to realize in murals, ceramic walls, and large-scale glass constructions. What he called his "Refractions" involve glass or mirror effects with constantly changing images.

Since Vasarely was aware of the range of optical effects possible in black and white, a large proportion of his work is limited to these colors, referred to by the artist simply as "B N" (blanche noir: white black). It was, nevertheless, in color that the full range of possibilities for Optical painting could be realized, and Vasarely was well aware of this. In the sixties, his color burst out with a variety and brilliance unparalleled in his career. Using small, standard colors—shapes—squares, triangles, diamonds, rectangles, circles, sometimes frontalized, sometimes tilted, in flat, brilliant colors against equally strong contrasting color grounds—he set up retinal vibrations that dazzle the eye and bewilder perception (fig. 22.27).

Riley and Anuszkiwicz

The British artist Bridget Riley (b. 1931) and the American artist Richard Anuszkiwicz (b. 1930) have been responsible for producing highly acclaimed examples of Op art. Initially working primarily in black and white and different values of gray, with repeated, serial units frontalized and tilted at various angles, Riley produced extremely effective illusions, seemingly making the picture plane weave and billow before our eyes. Her use of variations in tone (which Vasarely rejected) accentuates the illusion (fig. 22.28). By contrast, Anuszkiwicz, a student of Josef Albers, often
gathered pace through a series of exhibitions and the organization of experimental groups. Although kinetic and light art has become a worldwide movement, the first great impetus came from Europe, particularly from France, Germany, and Italy. Beginning in 1955 a center for its presentation was the Denise René Gallery in Paris, formerly the stronghold for the promotion of Concrete art. In that year a large exhibition held there included kinetic works by Duchamp, Calder, Vasarely, Yaacov Agam, Pol Bury, Jean Tinguely, and Jesus Rafael Soto. The first phase of the new movement climaxed in the great exhibition held sequentially at the Stedelijk Museum in Amsterdam, the Louisiana Museum in Denmark, and the Moderna Museet in Stockholm. This was a vast and somewhat chaotic assembly representative of every aspect of the history of light and motion, actual or illusionistic, back to the origins of the automobile and to Eadweard Muybridge’s nineteenth-century photographic studies of human and animal figures in motion (see fig. 2.33). Although the exhibition did not draw any conclusions, it did illustrate dramatically that the previous few years had seen a great acceleration of interest in these problems. The popular curiosity about this art is evinced by the fact that the exhibitions were seen by well over one hundred thousand people. During the sixties, exhibitions of light and motion proliferated throughout the world, involving increasing numbers of artists.

The arts of light and motion encouraged a number of new artists’ organizations and manifestos during the late fifties and sixties. It was in 1955, in connection with the Movement exhibition at the Denise René Gallery in Paris, that Victor Vasarely issued his *Yellow Manifesto*, outlining his theories of perception and color. Another important theoretician was Bruno Munari (b. 1907), who was producing kinetic works in Italy as early as 1933. Active in Spain, Equipo 57 (founded in 1957) represented a group of artists who worked as an anonymous team in the exploration of motion and vision. This anonymity, deriving from concepts of the social implications of art and also, perhaps, from the examples of scientific or industrial research teams, was evident at the outset in the Group T in Milan, founded in 1959; Group N in Padua, Italy, founded in 1960; and Zero Group in Düsseldorf, Germany, founded in 1957 by the kinetic artist Otto Piene. In most cases the theoretical passion for anonymity soon dimmed, and the artists began to emerge as individuals.

**New Media Mobilized: Motion and Light**

Two directions explored sporadically since early in the twentieth century gained new impetus in the sixties. These are motion and light used literally, rather than as painted or sculptured illusions. Duchamp’s and Gabo’s pioneering experiments in motion and Moholy-Nagy’s in motion and light have already been noted (see fig. 17.1). Before World War II, Calder was the one artist who made a major art form of motion (see fig. 17.29). Except for further explorations carried on by Moholy-Nagy and his students during the thirties and forties, the use of light as a medium was limited to variations on “color organs,” in which programmed devices of one kind or another produced shifting patterns of colored lights. These originated in experiments carried on in 1922 at the Bauhaus by Ludwig Hirschfeld-Mack (1893–1965) and by the American Thomas Wilfred (1889–1968), inventor of the color organ. The late sixties saw a revival in the use of light as an art form and in so-called mixed media, where the senses are assaulted by live action, sound, light, and motion pictures at the same time.

Gabo revived his interest in mechanical motion in the early forties, and in about 1950 Nicolas Schöffer began using electric motors to activate his constructions. During the fifties and sixties, artists’ interest in light and motion gathered pace through a series of exhibitions and the organization of experimental groups. Although kinetic and light art has become a worldwide movement, the first great impetus came from Europe, particularly from France, Germany, and Italy. Beginning in 1955 a center for its presentation was the Denise René Gallery in Paris, formerly the stronghold for the promotion of Concrete art. In that year a large exhibition held there included kinetic works by Duchamp, Calder, Vasarely, Yaacov Agam, Pol Bury, Jean Tinguely, and Jesus Rafael Soto. The first phase of the new movement climaxed in the great exhibition held sequentially at the Stedelijk Museum in Amsterdam, the Louisiana Museum in Denmark, and the Moderna Museet in Stockholm. This was a vast and somewhat chaotic assembly representative of every aspect of the history of light and motion, actual or illusionistic, back to the origins of the automobile and to Eadweard Muybridge’s nineteenth-century photographic studies of human and animal figures in motion (see fig. 2.33). Although the exhibition did not draw any conclusions, it did illustrate dramatically that the previous few years had seen a great acceleration of interest in these problems. The popular curiosity about this art is evinced by the fact that the exhibitions were seen by well over one hundred thousand people. During the sixties, exhibitions of light and motion proliferated throughout the world, involving increasing numbers of artists.

The arts of light and motion encouraged a number of new artists’ organizations and manifestos during the late fifties and sixties. It was in 1955, in connection with the Movement exhibition at the Denise René Gallery in Paris, that Victor Vasarely issued his *Yellow Manifesto*, outlining his theories of perception and color. Another important theoretician was Bruno Munari (b. 1907), who was producing kinetic works in Italy as early as 1933. Active in Spain, Equipo 57 (founded in 1957) represented a group of artists who worked as an anonymous team in the exploration of motion and vision. This anonymity, deriving from concepts of the social implications of art and also, perhaps, from the examples of scientific or industrial research teams, was evident at the outset in the Group T in Milan, founded in 1959; Group N in Padua, Italy, founded in 1960; and Zero Group in Düsseldorf, Germany, founded in 1957 by the kinetic artist Otto Piene. In most cases the theoretical passion for anonymity soon dimmed, and the artists began to emerge as individuals.

**Mobiles and Kinetic Art**

Although not usually labeled as a sixties kinetic artist, Alexander Calder (1898–1976), whose prewar career was discussed in chapter 17, merits further discussion here for his important example and continued influence in the area of kinetic sculpture. From the late forties he had developed a growing interest in monumental forms, and in the transformation of the mobile to a great architectural-sculptural wind machine whose powerful but precisely balanced metal rods, tipped with large, flat, organically shaped disks,
encompass and define large areas of architectural space. Since the mobile, powered by currents of air, could function better outdoors than indoors, Calder began early to explore the possibilities for outdoor mobiles. Critical to the development of these works was his reconceptualization of the mobile as something that could function as an autonomous, standing structure, combining interrelated stable and mobile forms in an organic whole. In the late fifties and sixties, Calder created many large, standing mobile units that rotate in limited but impressive movement over a generally pyramidal base.

As *The Spiral* (fig. 22.30) suggests, the development of Calder’s moving sculptures bore an important relationship to the development of nonmoving elements in his structures. One of his signal achievements of the sixties occurred in his great “stables”—his large-scale, nonmoving, metal-plate constructions, usually painted black. Of these, one of the most impressive is the glowing red *La Grande Vitesse* (fig. 22.31) in Grand Rapids, Michigan; an expansive
work with which Calder filled an otherwise sterile public space with Miró-like charm and radiant splendor. While suggesting a great exotic flower in its prime or the expressive movements of a dancer, the assemblage of red biomorphic planes boldly displays the structure of its rivets and struts and testifies to the forces involved in creating it.

Among the makers of mobiles, one of the most interesting to emerge in the United States since World War II was George Rickey (1907–2002). Rickey composed long, tapering strips or leaf clusters of stainless steel in a state of balance so delicate that the slightest breeze or touch of the hand sets them into a slow, stately motion or a quivering vibration (fig. 22.32). During the seventies, Rickey enlarged his vocabulary with the introduction of large-scale rectangular, circular, and triangular forms in aluminum, so precisely balanced that they maintain the possibility of imperceptible and increasingly intricate patterns in movement. His was an art of motion entirely different from that of Calder.

Jesus Rafael Soto (b. 1923) is a motion artist in the sense that his constructions, consisting of exquisitely arranged metal rods, are sensitive to the point that even a change in atmosphere will start an oscillation (fig. 22.33). A Venezuelan resident of Paris, Soto began as an illusionistic painter and then moved to a form of linear construction during the sixties. He developed a personal idiom of great elegance, sometimes translated into a form of large-scale architecture involving spectator participation. In exhibitions at the Solomon R. Guggenheim Museum in New York and the Hirshhorn Museum and Sculpture Garden in Washington, D.C., he created out of his typical plastic strings entire room environments that the spectator could enter.

**Artists Working with Light**

Of the light experimentalists, the Argentine Julio Le Parc (b. 1928) was one of the most imaginative and varied in his employment of every conceivable device of light, movement, and illusion (fig. 22.34). The awarding to him of
the painting prize at the 1966 Venice Biennale was not only a recognition of his talents but also an official recognition of the new artistic media. From 1958 Le Parc lived in Paris where, in 1960, he was a founder of the Groupe de Recherche d’Art Visuel (GRAV). With its home base at the Denise René Gallery, this group carried on research in light, perception, movement, and illusion. Le Parc became an important link between various overlapping but normally separate tendencies in the art of the sixties: not only light and movement, but also different forms of optical, illusionistic painting, and programmed art.

The Greek artist Chryssa (b. 1933) bridged the gap between Pop art and light sculpture. She first explored emblematic or serial relief forms composed of identical, rhythmically arranged elements of projecting circles or rectangles. Then in the early sixties she made lead reliefs derived from newspaper printing forms. From this Chryssa passed to a type of found-object sculpture in which she used fragments of neon signs. The love of industrial or commercial lettering, whether from newspapers or signs, became a persistent aspect of her works. In this she was recording the American scene in a manner analogous to the Pop artists or to the earlier tradition of Stuart Davis and Charles Demuth. Soon her fascination with the possibilities of light, mainly neon tube light, completely took over her construction of elaborate light machines so that they came to resemble contemporary American industrial objects (fig. 22.35).

Perhaps the most significant group effort in the United States was EAT—Experiments in Art and Technology—which developed from a series of performances involving Robert Rauschenberg, the engineer Billy Klüver, and the composer John Cage. Presented in 1966, *9 Evenings: Theater and Engineering* involved dance, electronic music, and video projection. These presentations may be traced back to experiments carried on by Cage since the forties as well as a collaborative exhibition held at the Denise René Gallery in Paris in 1955. Experiments by GRAV, sponsored by the René Gallery during the fifties and sixties, also anticipated the EAT group in the utilization of sophisticated technology and effects of light and movement. EAT perhaps extended the collaborative effort farthest in its attraction of large-scale financial support, particularly for its Pepsi-Cola Pavilion at the Osaka World’s Fair of 1970.

A number of artists, including Dan Flavin (1933-96), Larry Bell (b. 1939), and Robert Irwin (b. 1928), combined an interest in technology and light with the principles of Minimalism, to be discussed at greater length in the final section of this chapter. Dan Flavin exploited the fluorescent fixtures with which he worked for their luminosity, but also took advantage of their status as objects themselves. In his works, the glass tubes of fluorescent light


functioned as sculpture both when illuminated and when unlit, creating different effects. In turn, he recognized that light itself could transform an environment, as his 1992 installation (a reworking of an earlier version from 1971) at the newly renovated Guggenheim demonstrated (fig. 22.36). In a spirit similar to that of Dan Flavin, Larry Bell produced large vacuum-coated glass boxes that both intrigue viewers with their shimmering iridescence and force their audience to confront them as objects, rather than as pure visual effect. The art of Robert Irwin transforms the environment of the viewer even more radically.

Working with tightly stretched semitransparent textile scrims, which are lighted from behind, he creates an eerie, isolated environment with a hypnotic effect (fig. 22.37). One is drawn toward what appears to be an impenetrable void that, upon contemplation, increasingly surrounds the spectator. Irwin’s interest in the void may have its roots in the empty gallery of Yves Klein, but Irwin greatly developed the earlier concept. Irwin has also worked outdoors, creating public sculptures inspired by the environment in which they are installed and intended to invite the participation of their audiences (fig. 22.38).
The Limits of Modernism: Minimalist Sculpture and Painting

It will be clear by now that several trends characterize the painting and sculpture of the sixties, with a number of artists blurring the distinction between these two media. What has been discussed less explicitly is the ideological background to the various approaches to art-making, particularly sculpture, during this decade. With the publication of Clement Greenberg’s collection of essays Art and Culture in 1961, and the continued success of the Abstract Expressionist artists whose work he had championed since the forties, Greenberg’s influence was at a height. However, just when his modernist, formalist viewpoint prevailed, artists began to question the basis for his valuations of excellence. According to Greenberg, the best modern art should continue the historical trajectory of painting since the time of Manet, which he understood to involve a progressive evolution toward flatness as artists became increasingly effective at exploiting those qualities specific to the medium of paint. For Greenberg, even sculpture was to be judged by the same criterion of displaying opticality rather than illusionistic volume.

The most serious, protracted questioning of these ideas was undertaken by artists who came to be known as Minimalists. They frequently saw themselves not as attacking modernism but as pushing modernism’s logic to its limits, where many possibilities for art that were not contained within Greenberg’s prescriptive modernism opened out. Much of this ground had been prepared earlier in the twentieth century, for example by Duchamp’s erasure of the distinction between ordinary objects and art objects, or Neo-Dada’s concern with the nature of signs. To the extent that Postmodernism was both a development from and a reaction to modernism, Minimalist art can be seen to have a historically pivotal role.

If Pop, Op, and kinetic art can be considered departures from the priorities of Greenbergian modernism, Minimalism offered a particularly poignant alternative to these ideals. The term “Minimalism” was coined in 1965 to characterize an art of extreme visual reduction, but many Minimalist artists resisted its application to their work. Although the pronounced simplicity of their works was ostensibly in keeping with Greenbergian principles of truth to the medium and the evolution of flatness—that is, the elimination of the illusion of depth on a two-dimensional surface—Minimalism also served to undermine this version of modernism. Minimalist artists discussed their ideas in print, providing an intellectual justification for their dissatisfaction with modernist criticism. With Greenberg and his followers advocating that painting should embrace those qualities unique to the medium (flatness, pictorial surface, and the effect of pure opticality) and that sculpture should aspire to similar goals (an emphasis on surface and optical effect), Minimalist artists began agitating against the supremacy of painting and, above all, to stress the primacy
of the object itself. Greenberg's protégé Michael Fried perceived the seriousness of the conflict, observing in 1967 that, "There is ... a sharp contrast between the literalist [i.e., Minimalist] espousal of objecthood—almost, it seems, as an art in its own right—and modernist painting's self-imposed imperative that it defeat or suspend its own objecthood through the medium of shape." Minimalist artists denied the modernist belief that works of art should be autonomous—that they should exist in their own terms irrespective of context—and instead considered the importance of a work's environment. They often took into account theories of the psychology of perception and emphasized the importance of the audience's interaction with their pieces, arguing that art need not be absorbed from a single viewpoint in a purely optical fashion. Minimalist art considered not only the eyes of the spectator, but also the body.

Caro
In order to understand the relationship between modernism and Minimalism, it is helpful to consider the work of a key sixties modernist, the young British sculptor Anthony Caro (b. 1924). Caro was particularly influenced by the example of Henry Moore, for whom he worked as an assistant between 1951 and 1953. Subsequently, he began to experiment with new materials and with the production of welded metal sculpture. He was encouraged to pursue this direction by a lengthy trip in 1959 to the United States, where he met Clement Greenberg, David Smith, and Kenneth Noland (see figs. 19.39, 19.40, 19.41, 22.20, 22.22). On returning to England, Caro worked actively in a modernist vein, producing sculptures that stressed their presence as physical objects less than their dematerialized optical appearance. Greenberg's 1961 essay on the sculpture of David Smith clarified the goal toward which Caro's work strived:

To render substance entirely optical, and form, whether pictorial, sculptural or architectural, as an integral part of ambient space—this brings anti-illusionism full circle. Instead of the illusion of things, we are now offered the illusion of modalities: namely, that matter is incorporeal, weightless and exists only optically like a mirage.

In similar fashion, Caro's works often seem to dematerialize in front of the eye, registering their surfaces rather than any sense of bulk. The bright planes of Midday (fig. 22.39) appear almost to float. Similarly, elements of Riviera (fig. 22.40) seem to hover effortlessly in the air.

22.39 Anthony Caro, Midday, 1960. Painted steel, 7'7¾" × 2'11¾" × 12'1¾" [2.3 × 0.91 × 3.7 m].
Stella

The art of Frank Stella (b. 1936) straddled the line between the modernism advocated by Greenberg and Minimalism. One of the youngest and most talented of the artists associated with the new American painting of the sixties, Stella first gained wide recognition in 1960 with a number of works exhibited by New York’s Museum of Modern Art during one of its periodic group shows of American artists, on this occasion entitled Sixteen Americans. The “black” paintings shown there were principally large, vertical rectangles, with an absolutely symmetrical pattern of light lines forming regular, spaced rectangles moving inward from the canvas edge to the cruciform center. These lines were not formed by adding white pigment to the canvas—rather, they marked the areas where Stella had not laid paint down. In their balanced symmetry and repetition of identical motifs, Stella’s paintings were related to experiments by Minimal or Primary Structure sculptors (fig. 22.41). They had, however, a compelling power of their own, which led modernist critics to praise their optical qualities. Over the next few years, using copper or aluminum paint, Stella explored different
shapes for the canvas, which were suggested by variations on his rectilinear pattern. In these, he used deep framing edges, which gave a particular sense of object solidity to the painting. In 1964 the artist initiated a series of "notched V" compositions, whose shapes resulted from the joining of large chevrons. After some explorations of more coloristic rectangular stripe patterns, at times with optical effects, about 1967 Stella turned to brilliantly chromatic shapes, interrelating protractor-drawn semicircles with rectangular or diamond effects. These "protractor" works (fig. 22.42) sometimes suggest abstract triptychs, with their circular tops recalling later Renaissance altarpieces. The apparent stress that these works placed on their qualities as objects was extremely appealing to Minimalists. At the same time, two friends and former schoolmates of Stella's, the Greenbergian critic Michael Fried and the Minimalist artist Carl Andre, both struggled for his allegiance. Fried repeatedly claimed that the artist represented modernist principles; Andre worked closely with him and, when Stella's Black paintings were included in Sixteen Americans, he wrote a statement about them at his request. Although

22.42 Frank Stella, Agbatana III, 1968. Fluorescent acrylic on canvas, 9'11\(\frac{3}{4}\)" x 14'11\(\frac{3}{4}\)" (3 x 4.6 m). Allen Memorial Gallery, Oberlin College, Oberlin, Ohio.

Stella refused to connect himself firmly with one group or the other, his work continued to undermine any strict division between painting and sculpture.

In the seventies, Stella moved increasingly toward a form of three-dimensional painted relief, bold in color and dynamic in structure (fig. 22.43). It became increasingly difficult to tell if the works were paintings or sculptures, for by now the artist was using lacquer and oil colors on aluminum bases. Since then, Stella has remained committed to his abstractions, even as figurative work has increasingly received significant critical attention. He offered a passionate defense of abstract art in 1983, when he gave a series of six lectures at Harvard University as the Charles Eliot Norton Professor of Poetry. However, his works of the nineties challenge the distinction between abstraction and representation, as Stella strived to produce reliefs that convey narrative significance in a nonfigurative fashion and yet incorporate forms that are suggestive of more naturalistic representation (fig. 22.44). Stella’s works, while not strictly antimodernist, have clearly challenged the narrow
critical categories defined by Greenbergian modernism both in terms of form and content. As the art historians Charles Harrison and Paul Wood pointed out, Stella's overt reference to Herman Melville's *Moby-Dick*, in several works offering visual interpretations of poignant themes and moments in the novel, ignores the Greenbergian demand that art should be autonomous from literary content. If Stella's later art no longer retains obvious visual affinities with sixties Minimalism, it nevertheless reflects the legacy of the shift in critical discourse that Minimalism marked.

**Smith, Judd, Bladen, and Morris**

Despite the fact that the sculptor Tony Smith (1912–80) matured artistically during the forties and fifties, his most important impact was felt during the sixties. He came to be celebrated by other Minimalists for pronouncements about the nature of art in general, and about his art in particular, which helped to define the new approach of the group as a whole. Particularly influential was Smith's description of a nighttime drive down an unfinished segment of the New Jersey Turnpike in the fifties:

> The drive was a revealing experience. ... [T]hat did something for me that art had never done. At first I didn't know what it was, but its effect was to liberate me from many of the views I had about art. ... I thought to myself, it ought to be clear that's the end of art. Most painting looks pretty pictorial after that. There is no way you can frame it, you just have to experience it.

---

22.45 Tony Smith, *Cigarette, 1964—66. Plywood model to be made in steel, 15 × 26 × 18" (4.6 × 7.9 × 5.5 m).*

22.46 Tony Smith, *Dig, 1962. Steel, edition of three, 6 × 6 × 6' (1.8 × 1.8 × 1.8 m).* Private collection.
The notion that one had to experience art, not merely imbibe its significance by standing in front of it, manifested itself in Smith's large, abstract pieces, which subvert traditional categories of sculpture and experience. Cigarette, (1961–66), demands a physical interaction with the viewer (fig. 22.45); as he or she moves around the structure, certain aspects of the work appear as others fade from sight. Both memory and movement are required for the appreciation of the work. Despite its association with an everyday, disposable object, the sculpture is by no means pictorial; nor can it be easily cast aside or discarded.

Smith's Die of 1962 (fig. 22.46) has still more obvious affiliations with the common object from which its name derives. However, its scale has been radically increased and the cube bears none of a die's traditional markings. Die is not an object that can be thrown thoughtlessly by a human hand. Instead, the steel sculpture cannot even be adequately perceived from a single, frontal viewpoint. Again, the spectator must move around the object, unable to grasp it in its entirety; for the closer one gets, the larger the sculpture grows, reminding its audience of the limits of perception itself.

Donald Judd (1928–94) was one of Minimalism's most important sculptors and theorists. With his art criticism and, in particular, his 1965 essay Specific Objects, Judd helped to define the convictions behind the Minimalist questioning of the traditional categories of painting and sculpture. As he wrote in 1965, "A work can be as powerful as it can be thought to be. Actual space is intrinsically more powerful and specific than paint on a flat surface." A work need only be interesting. For Judd, the "specific object" could not be classified as either a painting or a sculpture, or even precisely described prior to its making, except in principle. The specific object was less about creating particular structures and more about an attitude toward art-making.

Through his sculpture, Judd carried the objective attitude to a point of extreme precision. He repeated identical units, often quadrangular, at regular intervals (fig. 22.47; fig. 22.48). These are made of galvanized iron or aluminum, occasionally with Plexiglas. Although Judd sometimes painted the aluminum in strong colors, he at first used the galvanized iron in its original unpainted form, something that seemed to emphasize its neutrality. Progressively, however, Judd used color more frequently in his work, which he began to have professionally manufactured in the mid-sixties.

Judd vehemently insisted that Minimal sculpture—most specifically his own—constituted a direction essentially different from earlier Constructivism or rectilinear abstract painting. The difference, as he saw it, lay in his search for an absolute unity or wholeness through repetition of identical units in absolute symmetry. Even Mondrian "composed" a picture by asymmetrical balance of differing color areas.

Judd's works raise fundamental questions concerning the nature and even the validity of the work of art, the nature of the aesthetic experience, the nature of space, and the nature of sculptural form. Like those of most Minimalist sculptors, Judd's works progressively expanded in scale. In 1974 Judd introduced spatial dividers into his sculptures. Three years later he began to construct large-scale works in cement to be installed in the landscape.
creating structures of order and harmony that resonated with their environment (fig. 22.49).

Ronald Bladen (1918–88), a Canadian, used monumental, architectural forms, frequently painted black, that loom up like great barriers in the space they occupy (fig. 22.50). Like Tony Smith, Bladen made his mock-ups in painted wood, since the cost of executing these vast structures in metal would be exorbitant. Very often Minimalist artists envisioning large-scale structures must await patrons for the final realization of their projects.

Robert Morris (b. 1931), who during the sixties was associated with Minimal sculpture, later became a leader in a wide variety of sculptural, environmental, Conceptual, and Post-Minimalist forms. A student of Tony Smith, Morris, like Donald Judd, proved to be an important advocate of Minimal art. His Notes on Sculpture provided an important statement about the heritage to which the Minimalists felt themselves heir—a tradition marked by the Constructivists, the work of David Smith, and the paintings of Mondrian—but perhaps even more important, also about the “gestalt” principles he believed to be crucial to Minimal sculpture. Gestalt (German for shape or form) theory focuses on human perception, describing our ability to understand certain visual relationships as shapes or units. Through his familiarity with these theories, Morris posited that one’s body has a fundamental link to one’s perception and experience of sculpture. According to Morris, “One knows immediately what is smaller and what is larger.” Morris’s sensitivity to the impact of scale and the corresponding implications of publicity or privateness led to his pioneering work in the organization of entire rooms into a unity of sculptural mass and space.
During the sixties and seventies, the monumental size of much Minimal sculpture led inevitably to the concept of sculpture designed for a specific space or place. This in turn resulted in ideas such as the use of the gallery space itself as an element in an architectural-sculptural organization. An early experiment in this direction was Morris's 1964 exhibition at the Green Gallery in New York, where large, geometric sculptural modules were integrated within the room, whose space became an element of the total sculpture (fig. 22.51).

The idea, of course, had been anticipated by such varied sculptural environments as Schwitters's Merzbau (see fig. 315) of the twenties and Yves Klein's Le Vide exhibition of the late fifties, in which the spectators provided the sculptural accents for the empty, white-walled gallery. The implications of sculpture in place have been explored and expanded enormously during the seventies and extended to environments based on painting, Conceptualism, and Earthworks.

**LeWitt, Andre, and Serra**

Sol LeWitt (b. 1928) is identified with a type of serial Minimalism consisting of open, identical cubes integrated to form proportionately larger units. These cubes increase in scale until they dominate the architectural space that contains them (fig. 22.52). In such works, the physical essence is only the outline of the cubes, while the cubes themselves are empty space. Like Judd and Morris, LeWitt made important theoretical contributions to artistic practice during the later sixties. His *Paragraphs on Conceptual Art*, published in 1967, reiterated the discomfort of Minimalist artists with Greenbergian standards of quality and set the stage for the recognition of yet another digression from the modernism endorsed by Greenberg—Conceptual art (see chapter 24). LeWitt's 1967 essay argued that the most important aspect of a work of art was the idea behind it rather than its form: "The idea becomes a machine that makes the art." LeWitt's 1968 *Box in the
Hole put his thesis into practice. Created in the Netherlands, this work consisted of a metal cube that the artist buried, covered over, and preserved in a series of recorded photographs.

During the early seventies, LeWitt exploited gallery space in another way—by drawing directly on the walls. These drawings—frequently destroyed at the close of each exhibition—were generally accumulations of rectangles, drawn with a ruler and pencil, toned to various degrees of gray, and accompanied by written specifications. These specifications ensured that a given work could be executed by assistants in the artist’s stead. Following LeWitt’s conception, the internal lines of each rectangle, creating the tones, might be diagonal as well as vertical or horizontal, and the result was frequently a geometric abstraction of considerable beauty. LeWitt has continued his practice of creating wall installations (fig. 22.53). Even if the walls are repainted, the piece is not destroyed; it continues to exist as a well-specified idea and can be reinstalled by following the artist’s instructions.

The early work of Carl Andre (b. 1935), influenced by the ideas of his friend Frank Stella and the sculptor

Brancusi, consisted of vertical wooden sculptures, given form by the use of a saw. By the early sixties, Andre had moved away from carving to the construction of sculptures using identical units. The arrangement of the wooden units in *Pyramid* (fig. 22.54), first created in 1959 and later reconstructed in 1970, suggests a carved form, although the undulations of the surface were not created by the use of a saw.

Other pieces from the early sixties, like *Well* (fig. 22.54), are more literal in their arrangement. After 1965 Andre began to make horizontally oriented sculptures, known as floorpieces. *Lever* (fig. 22.54), of 1966, initiated this new phase in his work. These pieces were made out of rugged, industrial materials not traditionally used in fine art. Combined timbers extended horizontally, bricks, styrofoam units, or identical metal squares assembled on the floor were sculptures intended to be walked on.

Since the mid-sixties, Andre’s sculpture has not been constructed in the studio, but rather in the exhibition space itself. The idea behind the pieces need only be realized where they are intended for display. One of his most intricate floorpieces, *37 Pieces of Work*, was executed in 1969 on the occasion of his solo show at the Guggenheim (fig. 22.55). The work consisted of a combination of tiles made from six metals: aluminum, copper, steel, magnesium, lead, and zinc. The tiles were a foot square (30.5 cm) and three-quarters of an inch (19 mm) thick. Each metal piece was placed first into a six-by-six-foot (1.8 m) square and then used to create accompanying squares by being alternated with one other metal until every combination had been achieved. The title for the piece comes from the thirty-six-square pattern the metals formed plus the square that encompassed the whole. The work was particularly appropriate for the Guggenheim, where viewers could gaze down on it as they ascended or descended the museum’s spiral ramp.

After experimenting with different materials, such as sheets of vulcanized rubber, Richard Serra (b. 1939) created sculptures consisting of enormously heavy sheets of steel or lead that balanced against or on top of one another. Despite the various forms that Serra’s work takes, it consistently exploits the natural form of the material itself. Rather than manipulate his media, Serra looks to their own physical properties for inspiration. His *Belts*, for example, take their form from the simple act of hanging the rubber loops on the wall (fig. 22.56). The incorporation of a neon tube
into the work heightens the viewer’s awareness of the intricacies of the forms the draped rubber has created. Serra’s One Ton Prop (House of Cards) (fig. 22.57) balances four five-hundred-pound lead sheets against one another. The seemingly casual arrangement of these slabs paradoxically accentuates their weight and communicates a sense of dangerous but exciting precariousness—heightened by the title’s reference to the ephemeral, practically weightless house of cards it emulates.

Serra has also been interested in a form of “scatter sculpture,” in which series of torn lead sheets are scattered on the floor or molten lead is splashed along the base of a wall. Throughout the seventies and eighties, Serra progressively enlarged the scale of his sculptures, took them out of doors, and combined his sheets of steel with a landscape environment, thus effecting the inevitable transition from sculpture placed in an interior environment to sculpture that becomes part of a landscape (see fig. 24.61).

**Minimalist Painters**

The senior Minimalist painter is Agnes Martin (b. 1912), who refined her art over many years, progressing from rather traditional still lifes to Gorky-like biomorphic abstractions, before arriving in the early sixties at her mature distillations of pure style. This occurred in New York City, where she had moved from New Mexico, taking with her a haunting memory of the desert’s powdery air and light. This she evoked by honing her means until they consisted of nothing but large, square canvases gridded all over with lines so delicately defined and subtly spaced as to suggest not austere, cerebral geometry but trembling, spiritual vibrations, what Lawrence Alloway characterized as “a veil, a shadow, a bloom” (fig. 22.58). Declaring their physical realities and limitations yet mysteriously intangible, intellectually derived but romantic in feeling and effect, the paintings of Agnes Martin are the product of a mind and a sensibility steeped in the meditative, holistic forms of Reinhardt, Rothko, and Newman, as well as the paintings of Paul Klee and the historic landscapes and
poetry of China. While using Hard-Edge structure in a visually self-dissolving or contradicting manner, Martin had no interest whatever in the retinal games played by Op artists. Nor did she ever aspire to the heroics of the Abstract Expressionists. When Martin felt that she had lost her clarity of vision in 1967, she ceased painting and left New York, returning to New Mexico in 1968. After a period of solitude and contemplation, she resumed painting in the early seventies. Her images retained their subtle, geometric character, but her colors became even softer and more luminous, making visible the artist’s sense of life’s essence as a timeless, shadowy emanation. “When I cover the square with rectangles,” she explained in 1967, “it lightens the weight of the square, destroys its power.”

Since the beginning of his career, Robert Ryman (b. 1930) has been interested in “how paint worked.” His fascination with paint extended from the way in which it was applied to its interaction with its support and the way in which various types of paint worked together. In his earliest work, Ryman explored a range of colors, gradually giving way to his exclusive use of white paint. Untitled of 1962 (fig. 22.59) represents one of the last instances of color in his work. Here multiple white strokes are layered over a background of blue and red, literally suppressing the bright hues while simultaneously reacting to them.

By the mid-sixties Ryman had dedicated himself to the use of white, believing that this color more than any other could highlight his manipulation of paint itself. By way of elucidating his “silent” all-white paintings (fig. 22.60), Ryman said in a frequently quoted statement, “It’s not a question of what to paint but how to paint.” With these words he declared his commitment to pure painting. “To make” has often figured in Ryman’s conversation, for he considers “making” a matter of knowing the language of his materials—canvas, steel, cardboard, paper, wood, fiberglass, Mylar interacting with oil, tempera, acrylic, epoxy, enamel—and of exploiting its syntax so that his paintings come alive with their own story. In Classico III, Ryman applied white polymer paint in an even film to twelve rectangles of handmade Classico paper precisely assembled to form a larger rectangle grided by shadows between the smaller units. With these positioned slightly off-center on a white ground, three types of rectangles in different scales and relationships echo and interact with one another. In Paramount (fig. 22.61), Ryman left the margins, the edges, of the canvas unpainted, drawing attention simultaneously to the paint and to the linen surface upon which it rests. His attention to detail is such that even the metal fasteners that join the painting to the wall are considered.
formed by the junction of the two (or more) parts and the drawn line laid down by the artist.

In paintings of the late sixties and early seventies, he used decorative color to accentuate neutral, monotone grounds, while an “error” in the precise, mechanical drawing subverted the geometric overall shape of the canvas from within (fig. 22.62). Here, destabilized by elusive color and the imperfect internal pattern, stringent formalism gave way to spreading openness and unpredictability, evoking the outside world of nature and humanity. And so Mangold too struck a balance between impersonality and individualism, bringing a welcome warmth to the pervasive cool of Minimalist aesthetics.

The precocious Brice Marden (b. 1938) had hardly graduated from the Yale School of Art, where he too worked with Al Held, when he created his signature arrangement of rectangular panels combined in often symbolic order and painted with dense monochrome fields of beeswax mixed with oil (fig. 22.63). During his career, Marden has become a

part of the work. He takes into account the relationship of the painting to the wall, carefully considering the height at which it is hung and the distance at which it projects forward. By such rigorous attention to material detail and to issues of optical perception, as well as through his painterly touch, Ryman invests his pictures with a lyrical presence, while pursuing a stern Minimalist program of precision and purification.

In his reaction against the perceived excess of Abstract Expressionism, Robert Mangold (b. 1937), a student of the Hard-Edge painter Al Held, stressed the factuality of art by creating surfaces so hard, so industrially finished, and so eccentrically shaped that the object quality of the work could not be denied. This assertion of the painting as an object in space was emphasized in several works in which the artist joined canvases, drawing attention to the importance of edges and creating a play between the real line


22.61 Robert Ryman, Paramount, 1981. Oil on linen with metal fasteners and square bolts, 84” x 84” (213.4 x 213.4 cm). Private collection.
Brice Marden, *The Dylan Painting*, 1966. Oil and wax on canvas, 5' × 10'
(1.52 × 3 m). Collection Helen Portugal, New York.

Virtuoso in his ability to balance color, surface, and shape throughout an extended series of variations, developed within a set of purposeful restrictions.

In the late seventies, Marden began to introduce a combination of vertical and horizontal planes within his paintings. Despite the abstract quality of his images, however, Marden continues to negotiate an underlying relationship between his painting and nature. His series of *Elements* paintings, begun in 1981, incorporates red, yellow, blue, and green—colors that medieval alchemists used to symbolize, respectively, fire, air, water, and earth. Subsequently, Marden introduced a curving, calligraphic line into his paintings. His study of Chinese calligraphy and corresponding interest in Asian culture inform his *Cold Mountain* paintings, named in honor of the ninth-century Chinese poet whose name comes from his sacred dwelling spot (fig. 22.64). The layering and interplay of lines and pigment comment on the process of painting itself. The rhythmic, all-over disposition of the calligraphic marks produces a sense of balance, harmony, and precision much in keeping with his earlier painting. Here again, then, is the Minimalist paradox of an extreme simplicity that is capable of rewarding sustained contemplation with revelations of unsuspected spiritual complexity or sheer aesthetic pleasure.
Drawing directly on the wall or attaching to it a flattened, geometric shape created merely by folding brown wrapping paper (fig. 22.65), Dorothea Rockburne (b. 1921) might seem to have so reduced her means as to take Minimalism over the line into Arte povera, an Italian movement characterized by its use of humble materials (see chapter 24). However, the direction proved quite different, fixed by the artist’s preoccupation with the mathematics of set theory as an intellectually pure strategy for creating an intricate interplay of simple geometric forms and real space.

So dependent was this art on process itself that Rockburne created it directly on the gallery wall, thereby condemning her pieces to a poignant life of fragility and impermanence. She subsequently worked in more durable materials and installations, as well as with richer elements, such as color and texture (fig. 22.66). Nevertheless, Rockburne remained loyal to her fundamental principle of “making parts that form units that go together to make larger units.” In the end, the logical yet unexpected way in which her scientifically derived but imaginative folding produces flat, prismatic shapes seduces the eye while engaging the mind. It also reveals why the challenge of working within Minimalism’s puritanically self-denying regimen appealed to some of the most gifted artists to emerge in the sixties.

During the sixties, Jo Baer (b. 1929) eliminated the brushwork and painterly texture of her earlier work to create pieces whose smooth surfaces showed little evidence of the artist’s hand. By reducing the visual interest of the surface itself, Baer believed that the spectator could focus on the image as a whole. Like Robert Morris, Baer incorporated the principles of Gestalt psychology into her work, using her images to test the limits of human perception, and thus drawing attention to the object nature of the canvas itself. In 1969, Baer began her Wraparound series,

which involved wrapping a painted black band outlined in color around the edge of the stretcher (fig. 22.67). Looking at the work from a certain angle, the viewer can perceive the whole band, but upon closer inspection it becomes evident that the flat solid that one perceived is actually painted on two adjacent surfaces. The canvas is no longer purely surface, but a three-dimensional entity, relying upon all of its surfaces to produce its particular effect. The colored bands in Untitled (Wraparound Triptych—Blue, Green, Lavender) play an important role, for it is the borders of an image that first signal the presence of a shape to the human brain.
Complex Unities: Photography and Minimalism

Minimalism's visual achievements can also be associated with photography. Serialism, an interest in process as a key source of content, and a search for the complex within the simple, unified image are all fundamental to the Minimalist aesthetic, and can be found in the fieldlike collages created by Ray K. Metzker (b. 1931), a former student of Harry Callahan (see figs. 19.62, 19.63) at the Institute of Design in Chicago. But, like most photographers in the "straight" tradition, Metzker begins with a real-life subject. Having photographed this, not as a single, fixed image but rather as a series of related moments, he then combines, repeats, juxtaposes, and superimposes the shots until he has achieved a composite, gridlike organization reminiscent of Minimalist painting, a single visual entity in which the whole is different and more rewarding than its parts (fig. 22.68). Metzker says of his work, "Where photography has been primarily a process of selection and extraction, I wish to investigate the possibilities of synthesis."

Bernd Becher (b. 1931) and Hilla Becher (b. 1934), German photographers married in 1961, together developed the documentary style for which they have become known. The Bechers turned their attention to the industrial transformation of the Western world, taking stark, closely cropped photographs of its hallmark architectural structures. Their photographs are frequently arranged into series of visually similar buildings and hung together in the format of a grid (fig. 22.69). Within these typological studies, each photograph functions as an independent unit, but the virtually uniform lighting and the similarity in form and viewpoint produce an effect of serial repetition that could be compared to the sculptures of Judd or Andre. Such interest in the individuality of units within similar types has a history in German photography that extends to the work of August Sander (see chapter 13). As teachers, the Bechers have influenced several generations of photographers in Germany and abroad.