

Into the Light

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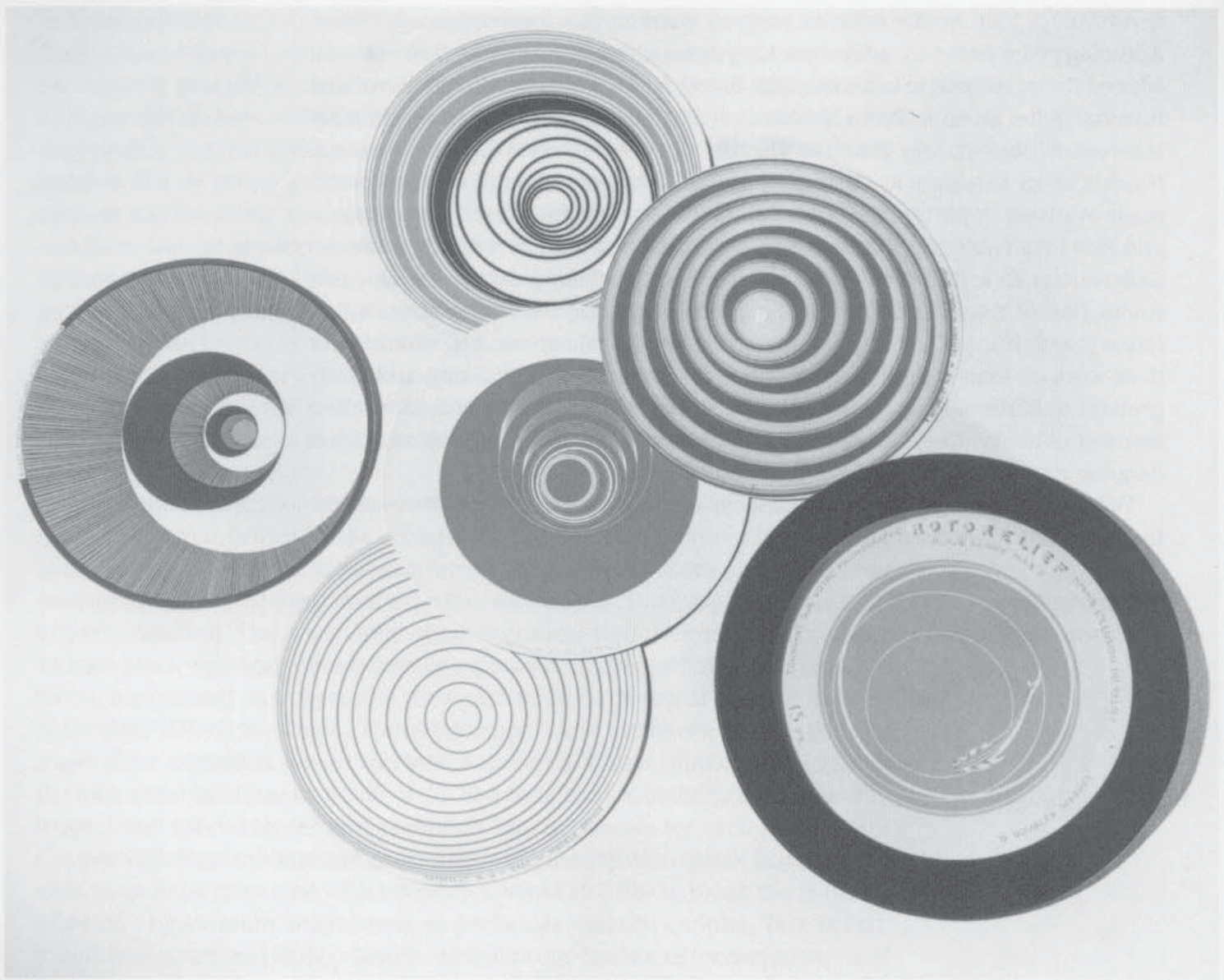
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Marcel Duchamp. *Rotoreliefs*, 1935. Color lithograph on six cardboard disks, with holder; each disk approx. 8 in. (20.3 cm) diameter. Philadelphia Museum of Art; The Louise and Walter Arensberg Collection

Between the Still and Moving Image

CHRISSIE ILES

During the 1960s and early 1970s, the projected image played a critical role in creating a new language of representation, as artists used film, slides, video, and holographic and photographic projection to measure, document, abstract, reflect, and transform the parameters of physical space. The pictorial space created by Renaissance linear perspective, where a fixed vanishing point dictated a singular position for the viewer, had endured for more than four hundred years. Beginning in the mid-nineteenth century the viability of this unmoving station was challenged, and by the 1960s, it was physically dismantled by Minimalism. Minimalist artists engaged the viewer in a phenomenological experience of objects in relation to the architectural dimensions of the gallery—not to pictorial space—transforming actual space into a perceptual field. Artists working with the projected image shifted the coordinates of this perceptual field from the brightly lit architecture of the gallery to the dark, reverie-laden space of the cinema. In this hybrid of white cube and black box, each model of space informed and modified the characteristics of the other.

As Roland Barthes observed, in the closed space of cinema there is no circulation, no movement, and no exchange. In the darkness, spectators sink into their seats as though slipping into bed. The cinema becomes a cocoon, inside which a crowd of relaxed, idle bodies is fixed, hypnotized by simulations of reality projected onto a single screen.¹ This model is broken apart by the folding of the dark space of cinema into the white cube of the gallery. Building on Minimalism's phenomenological approach, the darkened gallery's space invites participation, movement, the sharing of multiple viewpoints, the dismantling of the single frontal screen, and an analytical, distanced form of viewing. The spectator's attention turns from the illusion on the screen to the surrounding space, and to the physical mechanisms and properties of the moving image: the projector beam as a sculptural form, the transparency and illusionism of the cinema screen, the internal structure of the film frame, the camera as an extension of the body's own mental and ocular recording system, the seriality of the slide sequence, and the interlocking structure of multiple video images.

This prising of the viewer's gaze from the single screen into the surrounding space mimicks the inherent mobility of the camera itself. The viewer is able to visually retrace the steps of the artist as the images were originally recorded. These images appear in the darkened gallery space in a radically different form from those

experienced in cinema. Projections and video screens are presented on and around the walls of the gallery—split, overlapping, multiplied, serialized, mirrored, rotated, made miniature or gigantic. These various forms belong to the conceptual, process-based practice of what came to be known as Postminimalist art. Most of the artists who created these forms were also making works in other media, including sculpture, language, photography, neon, earthworks, drawing, film, sound, and performance, each of which informed the texture and form of the others, and all united by an underlying temporality.²

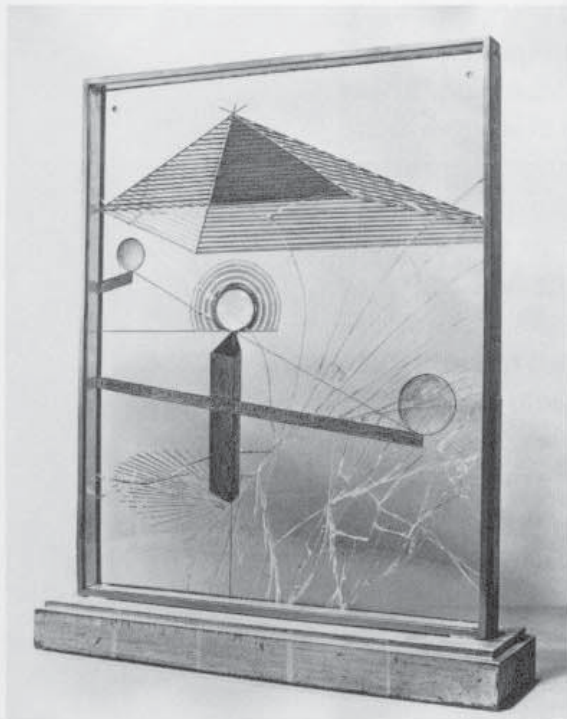
This temporality is most clearly expressed in projective installations through artists' use of the gallery space, which in the late 1960s became a kind of field of exchange and activity. The field evolved as a result of a dramatic shift away from the frontal perspective of the camera obscura to an all-surrounding model of space which, as Jean Baudry observes, was discontinuous, heterogeneous, and multi-dimensional.³ This final dismantling of traditional linear perspective completed the earlier experiments of stereoscopic photography, Paul Cézanne's breaking up of the picture plane, and the advent of cinema, then Cubism's introduction of temporality and Marcel Duchamp's experiments with multiple perspectives, opticality, perception, and the fourth dimension, all of which laid the groundwork for this Postminimalist decentering of the viewing subject.

The roots of this decentering also extend much further back, to philosophical discourses on vision from the sixteenth and seventeenth centuries. The seventeenth-

century German philosopher G.W. Leibniz showed great interest in multiple perspectives, which he compared to "varying architectural elevations or 'scenographies.'"⁴ Another architectural metaphor anticipating the architectonic aspects of the multiperspective projective installations of the 1970s occurs in the French philosopher Nicole Malebranche's treatise *Dialogues on Metaphysics* (1688). As Catherine Wilson describes it, Malebranche's spokesman Theodore and his interlocutor Aristes retreat into a dark cabinet to exclude the distractions of the outside world, but decide not to pull the curtains completely. The optimum space for philosophical reflection, they decide, is "a place in which . . . [they are] neither subject to the solicitations of the illuminated world, in which objects appear in all their distract-

ing variety, nor plunged into the night world of unseen dangers. Inner illumination demands a dimming but not an extinguishing of the ambient light."⁵ In this observation of the effect of space and the physiology of the eye on perception, one could draw a broad analogy with the installation space. In contrast to the hypnosis induced by the pitch-blackness of the cinema, within which the single bright screen seizes our minds in its distracting grip, the dimly lit gallery engages the viewer in a wakeful state of perception.

In this dimly lit space, we are invited to look not merely at the screen, but beyond it, to the walls onto which it is projected, and to the relationships set up between one



LEFT: Marcel Duchamp. *To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour (also known as The Small Glass)*, 1918. Oil paint, silver leaf, lead wire, and magnifying glass, mounted between two panes of glass in a standing metal frame on painted wood base, overall height 22 in. (55.8 cm). The Museum of Modern Art, New York; Katherine S. Dreier Bequest

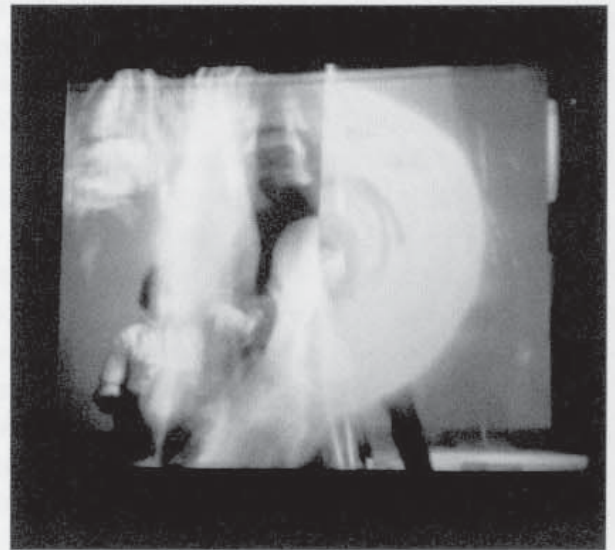
OPPOSITE: Michael Snow. Still from *Two Sides to Every Story*, 1974. Two synchronized 16mm films, color, sound, 8 minutes, projected continuously on two sides of an aluminum screen. National Gallery of Canada, Ottawa; Purchased 1977

image and the next. This multidimensional viewing suggests a transparency of vision that has an important precedent in Marcel Duchamp's two three-dimensional works in glass, *The Bride Stripped Bare by Her Bachelors, Even*, commonly known as *The Large Glass* (1915–23), and *To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour*, commonly known as *The Small Glass* (1918). In both these works, transparent surfaces suggest projection as well as the fourth dimension of time. For the significance of *The Small Glass* to the projected installation space, it is worth quoting at length Thierry de Duve's experience of the work:

Its title is at once its instruction sheet: *To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour*. I did this (not for an hour; patience has its limits), and the experience is very instructive. My eye riveted to the magnifying glass, I see—or rather I don't see—the work vanish from my visual field only for there to appear an inverted and reduced image of the gallery in the Museum of Modern Art where the object is exhibited. A waiting period, uncomfortable and boring, begins. The revelation takes place when by chance another visitor passes who appears to me like a homunculus [tiny man], upside down and in my former place, since I was initially on that side of the glass where the title/instruction sheet was to be read. A missed encounter has just taken place—the glass serving as obstacle—between two spectators, him and me. . . . Between the two of us the work was nothing but the instrument of this encounter. But since he occupies the place where I was, it is also with myself that I had this missed rendezvous to which I arrived late, and it is with himself that he will have, or that he already has a rendezvous, *with all kinds of delays*.⁶

De Duve's description of his experience of *The Small Glass* evokes viewers' encounters of the inverted image in Peter Campus' *aen* (1977). It also recalls the image of a room in miniature, seen faintly as a reflection on the surface of a ball bearing, in Bruce Nauman's *Spinning Spheres* (1970). Most directly, it recalls the dismantling of the two-dimensional picture plane in Michael Snow's double-sided film installation *Two Sides to Every Story* (1974), in which the viewer discovers that the image on one side of the screen appears, filmed from the opposite side, on the other. Maurice Merleau-Ponty had asserted that the infinite number of angles contained in a viewer's circumnavigation of an object renders that object transparent. This principle is demonstrated concretely in Duchamp's glass pieces and is addressed in filmic terms in Snow's installation.

A woman is filmed by two fixed cameras, placed at opposite sides of a room 40 feet apart. She walks back and forth between the cameras, carrying a board colored blue on one side and cream on the other. As she approaches one camera, she brings the board up close to the lens before turning away to walk toward the other. Her movements are punctuated by the occasional placing of colored gels in front of the camera lenses by the cameramen, who are clearly visible behind each tripod. Snow can be seen sitting next to one of the cameras, issuing instructions from a written script. The visibility of the image's recording mechanism, and of the artist's participation in its construction, underlines the work's conceptual form. The woman's



symmetrical movements between both cameras confound the notion of a single pictorial space by creating another side to the image. Neither side can be read as the front or back of the image, however, since the two are interchangeable, and thereby rendered equal.

This breakdown of the single cinematic viewpoint into a tautological exchange is made spatial by the presentation of the films in the gallery space. The viewer is able to experience the two films only by moving around a screen suspended in the middle of the gallery, which shows one film on each side. The structure of the shoot is echoed in the installation: the projectors occupy the same position as that of the cameras during the shoot, and the viewer, moving back and forth to compare both sides of the screen, echoes the movements of the woman in the films. In this performative reconstruction of linear perspective, the central fixed viewpoint is first established then dismantled, calling the traditional physical and perceptual relationship between the film screen and the viewer into question.

Michael Snow's interest in transparency and framing is influenced by the work of Duchamp. This influence can be clearly felt in the woman, whose female presence in a dematerialized, three-dimensional plane could be compared to the bride in Duchamp's *Large Glass*, and in her encounter with a large sheet of transparent plastic in what had appeared to be open space as she walks toward the camera. This transparent plane becomes visible only when she produces a can of spray paint and sprays a green circle onto its surface, in a large spiral that recalls Duchamp's optical works, such as *Anemic Cinema* (1926) and *Rotary Glass Plates (Precision Optics)* (1920), and his series of circular cardboard roto-reliefs. Our unimpeded view of three-dimensional space is revealed to be an illusion, as our vision is bisected by an invisible flat surface, made visible through the painterly gesture of mark-making.

The assertion of a pictorial plane, implicitly that of the canvas, is immediately negated by one of the cameramen, who cuts into the transparent plastic with a knife, creating a long slit through which he steps into the space on the other side, closely followed by the woman. This action rejects a belief in both the two-dimensional pictorialism of painting and the illusion of truth suggested by the film image. The ongoing contradiction between opacity and transparency in Snow's work, given its most complex spatial expression in *Two Sides to Every Story*, recalls David Joselit's observation of the spatial paradox in Duchamp's *Small Glass*: it is "to be looked at like a screen, but it also explicitly instructs the viewer to look through it from behind, like an aperture."⁷

The multiple planes in Snow's installation—the transparent surface, the colored gels, the imaginary screen outlined by the woman with her hands in space, the two-sided colored boards, the painted green spiral, and the freestanding screen—all reinforce this contradiction. In contrast to the dominating presence of the cinema screen, framed by the darkness, Snow's screen in the gallery—prised away from the wall and held suspended in space as though floating—is so thin that the film image almost disappears. The impossibility of viewing the whole image on both screens simultaneously reinforces its elusiveness, evoking Duchamp's theory of "infra-thin," with which, as Joselit states, he associated "division, transparency and 'cuttage.'"⁸

Other installations from the period using film, video, holography, and slides assert what Rosalind Krauss has described as "sheer physical presence," as well as a simultaneous anxiety around its potential dissolution. The evidence of this dichotomy in the work of both Duchamp and artists of the late 1960s and early 1970s was, Krauss

TOP: Bruce Nauman. *Spinning Spheres*, 1970. Graphite on paper, 23 x 29 in. (58.4 x 73.7 cm). Courtesy Leo Castelli Gallery, New York

BOTTOM: Bruce Nauman. *Untitled*, 1971. Crayon and graphite on paper, 23 x 29 in. (58.4 x 73.7 cm). Courtesy Leo Castelli Gallery, New York.

In this drawing for an unrealized work, Nauman demonstrates his idea of creating an installation similar to *Spinning Spheres*, in which the film camera spins around a stationary object.

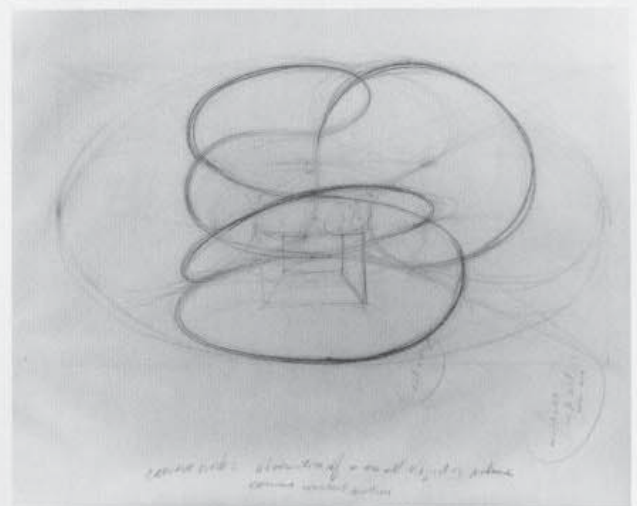
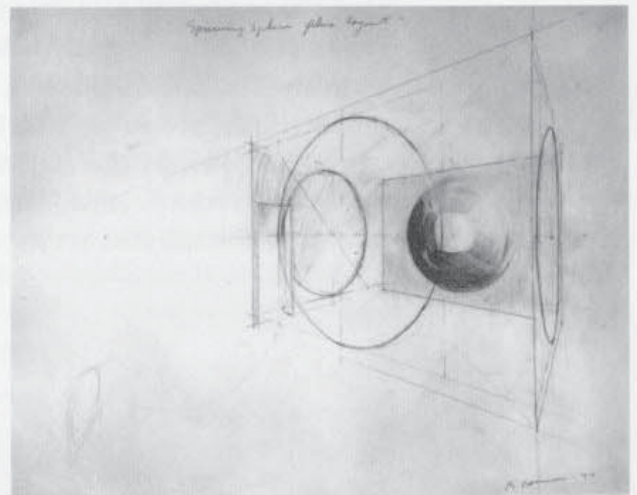
argued in 1977, a clear response to a crisis in representation brought about by Cubism in the first case and Minimalism in the second.⁹ In the work of the 1960s and 1970s, it expressed itself through an inquiry into the perception of physical space.

Between 1970 and 1972, for example, Bruce Nauman made thirty-three architectonic installations in which space is physically and perceptually destabilized in constructed rooms (sometimes sealed), walls, and corridors, using film loops, video cameras, electric fans, audiotape, and neon light. The film installation *Spinning Spheres* is one of sixteen works Nauman made in 1970 alone. Four identical film loops projected on each wall of the gallery, floor to ceiling, show the surface of a ball bearing, spinning. After three minutes, the ball bearings slow down until they briefly come to a halt, before resuming their spinning.

The projected surface of the steel ball held within an enclosed model of a room achieves Nauman's desire for "no scale and no ground" and for "the experience [to become] less and less clear. The difficulty is intentional."¹⁰ The "difficulty" in reading space in *Spinning Spheres* is achieved through a faintly seen pictorial representation of what Nauman himself referred to as an "idealized" room, whose interior is completely empty. The space in this reflected room is twice abstracted—once from the gallery, and once further, from the small construction in which it was filmed. With this work, Nauman confounds the body's ability to locate itself in space according to tangible coordinates. As in so many of his works, the resulting disorientation pushes the viewer not only out of the image but also, potentially, out of the room itself.

In this denial of entry into the space of the image, the alternation of the abstract surface with the faint outline of a space, seen briefly each time the steel ball slows to a standstill every three minutes, echoes Snow's use of opacity and transparency as a conceptual tool. Both are prefigured in Duchamp's articulation of his interest in the "difference between tactile exploration, three-dimensional wandering by the ordinary eye around a sphere and the vision of that sphere by the same eye fixing itself at a point of view (linear perspective)."¹¹ Nauman's own interest in the physiology of perception is made clear in the introductory paragraph to his article "Notes and Projects," written for *Artforum* in 1970, which includes the instructions for making *Spinning Spheres*: "It has been shown that at least part of the information received by the optical nerves is routed through and affected by memory before it reaches the part of the brain that deals with visual impulses (input). Now René Dubos discusses the distortion of stimuli: we tend to symbolize stimuli and then react to the symbol rather than directly to the stimuli. Assume this to be true of the other senses as well."¹²

Despite the Duchampian nature of much of Nauman's thinking, and the clear relationship between the vorticism of the spinning steel balls and Duchamp's optical experiments such as *Anemic Cinema*, it is Samuel Beckett who plays the more important role in the interpretation of *Spinning Spheres*. Nauman's extreme magnification of a small object recalls Beckett's descriptions of the meticulous



examination of surfaces of the body, including, for example, a telescopic view of an enlarged knee. Beckett's interest in measurement, the repetition of meaningless activities, and "seeking, finding and defining the centre"¹³ all converge in Nauman's attempts to find and define a center, and then subsequently to obfuscate it.

Spinning Spheres inverts the centrifugal motion in Duchamp's optical rotary discs and the spinning spirals in *Anemic Cinema*, in which the center advances and recedes, becoming alternately convex and concave. The hypnotic mechanical rhythms in both Duchamp's and Nauman's visually ambiguous rotations suggest what Annette Michelson has described as a kind of autistic response.¹⁴ In their spinning forms, autism becomes a conceptual language system.

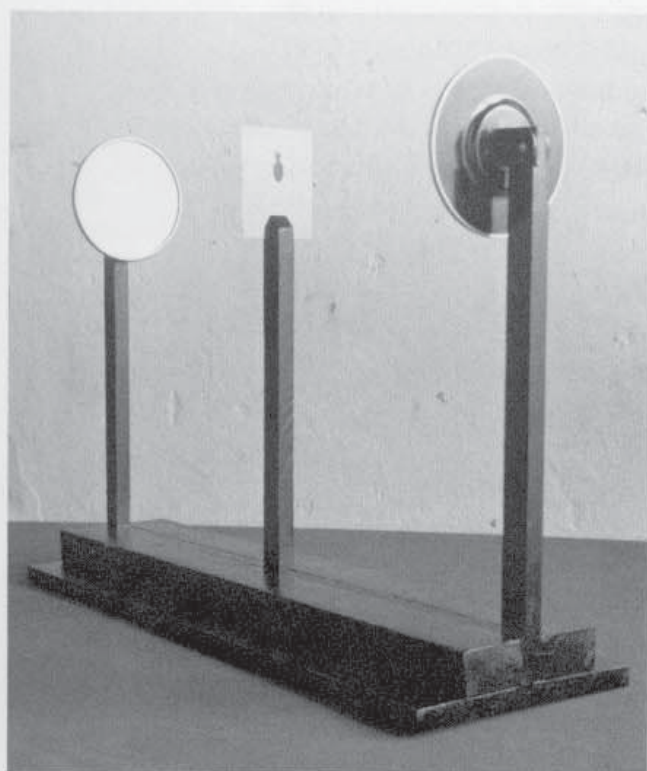
The conceptual implications of autism were explored in three-dimensional terms by Robert Morris, in whose early work Duchamp also played a critical role. Inspired, as Maurice Berger points out, by Duchamp's *Rotary Demisphere* (1925),¹⁵ Morris created *Pharmacy* (1962), a direct precursor of his film installation *Finch College Project* (1969). In *Pharmacy*, a freestanding glass plate is placed between two circular mirrors on stands. On each side of the glass is a silhouette of a small pharmaceutical bottle, red on one side, green on the other, reflected in each corresponding mirror. Morris makes direct reference to the mechanics of stereoscopic vision, in which the viewer's eyes merge two images, often through green and red filters, into a single three-dimensional one. Yet the spatial separation of the red and green silhouettes,

turned outward, and the angling of the mirrors (symbolic of the eyes) inward rather than to the front, prevents us from optically completing a unified picture of the external world. As in Snow's *Two Sides to Every Story*, the viewer must move between two opposite sides of a freestanding picture plane to read both images and can never reconcile them into a single spatial and temporal whole.

In *Finch College Project*, Morris extends this Duchampian optical conundrum to incorporate the three-dimensional space of the gallery and the fourth dimension of time. The loss of center—and therefore, by implication, of self—implied in the splitting of the image in *Pharmacy* is made even more corporeal by the disappearance of real space into the film image, which is then projected back into the same

LEFT: Robert Morris. *Pharmacy*, 1962. Painted wood, mirrors, and glass, 18 x 11½ x 36 in. (45.7 x 29.2 x 91.4 cm). Collection of the artist

OPPOSITE: Jan van Eyck. *Portrait of Giovanni Arnolfini and His Wife [The Arnolfini Marriage]* (detail), 1434. Oil on oak panel, 33¼ x 24⅝ in. (84.5 x 62.5 cm). National Gallery, London



space. In 1961, Morris had read the note scribbled by Duchamp in his *Green Box* (1919): "To place mirrored pieces of glass on the floor so that the room and the viewer are mirrored simultaneously."¹⁶ From the early 1960s onward, Morris made a number of sculptures in which mirrored surfaces incorporated the viewer and the surrounding gallery space, dematerializing the object.

Finch College Project broadens this dematerialization to include both the physical object and the space of the gallery. Art handlers are filmed installing and de-installing, on opposite walls of the gallery, a photograph of a movie audience blown up large and an identically sized mirror. Both the photograph and the mirror have been

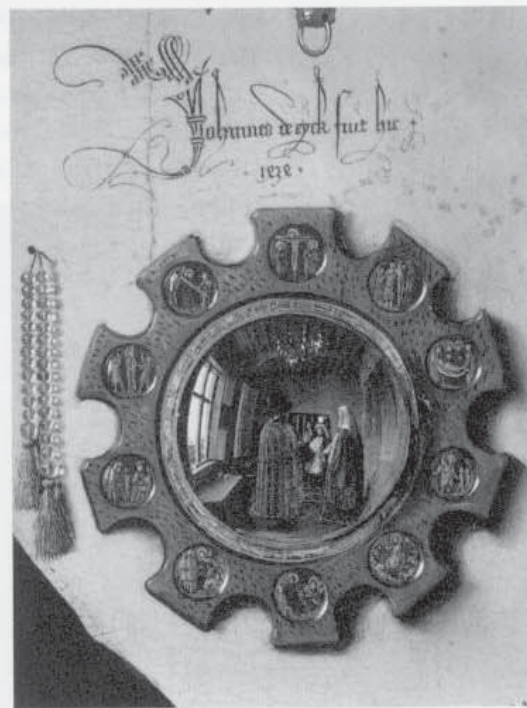
divided into a grid of separate squares, which are hung on the wall one by one until the complete image appears. Both are then de-installed one by one, until the gallery is once again an empty space, marked only by the traces of the hanging left by the dark glue, which forms a grid across the walls. This didactic exercise, filmed by Robert Fiore, recalls the tasklike actions in Morris' films made the same year, as well as in his early performances.¹⁷ At certain moments, the camera can be seen reflected in the mirror it is filming, recalling a similar appearance of the film camera in a reflection of the landscape in Morris' film *Mirror* (1969), to which *Finch College Project* is strongly related.¹⁸

Fiore filmed the performed sequence in *Finch College Project* by slowly rotating the camera in a series of panoramic shots around the room at 1rpm for the duration of the action. The film was then looped and projected around the walls of the empty gallery on a turntable placed on a pedestal, rotating at exactly the same speed as the original filming. Flattening and abstracting the art object into a photographic and reflected simulacrum, Morris dematerializes it further by making the process of its assembly and dismantling visible and by projecting the film of it onto the same wall surface on which it had just been hung. Several doublings occur: real and filmed time; space and surface; and the reflection of the movie audience's faces back to themselves in the mirror, positioned where the film screen would be.

A further doubling occurs in the appearance of the simulation of an art work within a real art work. The enlarged found photograph of a movie audience is both part of the art work and an abstraction of the original photograph and of cinematic spectatorship. As in *Pharmacy*, the spectator is unable to complete the expected action of viewing. In the darkened gallery, we are able neither to observe a stable object on the wall, nor to absorb a central, fixed image on a conventional cinema screen. Morris has detached both the art object and the film image from their moorings. Instead, on an elusive film image rotating around the walls, we see traces of an exhibition in process, whose content records a fragment of another kind of filmic viewing space.

The revealing of a space otherwise invisible to the viewer in Duchamp, Snow, Nauman, and Morris has an important early precedent in the Flemish painter Jan van Eyck's iconic *Arnolfini Marriage* (1434). Van Eyck depicts, in one-point perspective, a betrothed couple standing together in a domestic interior. Behind them, a circular convex mirror, the focal point of the composition, reflects the other side of the room in miniature. The backs of the couple, the garden outside the window, and two visitors standing in the doorway (one of whom is van Eyck himself) can be clearly seen, as van Eyck juxtaposes opposite spatial viewpoints on a single plane. Hubert Damisch argues that this well-known example of a common practice in early Flemish painting is a deliberate attempt to acknowledge the different perspectives of viewers. The two tiny figures in the mirror create another vanishing point, making it impossible for the spectator to find a single, fixed position in the viewing space.¹⁹

Van Eyck's early acknowledgment of the impossibility of a single viewpoint, repeated in an ongoing dialogue between picture plane and mirror that has continued for more than five centuries, forms an important precedent for a number of



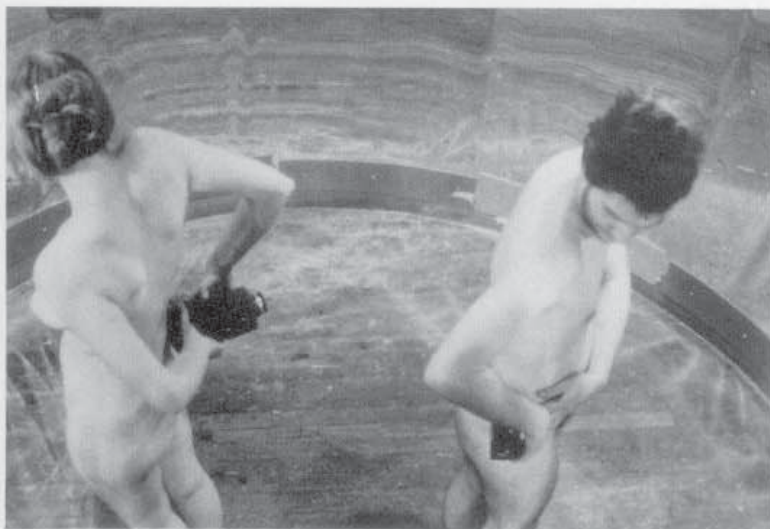
practices developed by artists in the 1960s and early 1970s: the use of mirrors, instant video feedback, and multiple film and video projections juxtaposed with each other and with performances; and a general concern to dismantle traditional definitions of the object in space. The relationship between the viewer and the 360-degree space implied by van Eyck's double perspective was explored in temporal and three-dimensional terms by Dan Graham, for example, in a series of topographical film projections made between 1969 and 1973. In *Helix/Spiral* (1973), two performers, including, in one version, Graham himself and the dancer Simone Forti, film each other in the open air.²⁰ The first stands in a "passive," fixed position, moving a camera pressed to the body downward from eyes to feet in a rotating helix, avoiding eye contact with the second performer. The second moves "actively" in a spiral toward the first, the viewfinder centered on the first performer's camera; the second performer tries to stay in the center of the first camera's gaze as it works its way down the body to the ground. While the first performer's framing of space is dictated by the movements of the camera across the contours of his/her own body fixed to one point in space, that of the second is affected by the rhythm of walking across the uneven Nova Scotia terrain on which the piece was performed.

Both performers' films comprise a series of panning movements, capturing the entire 360-degree space in which they are situated, in a dual fragmented perspective of opposites that recalls the two camera viewpoints in Snow's *Two Sides to Every Story*. Nevertheless, *Helix/Spiral* describes not a mirroring of identical movements, but a fusion of opposites. The first camera's mapping of the body in a helix from head to toe describes a vertical conical sphere that stands in the center of the flat, circular horizontal plane described by the second performer's spiraling movement across the ground. This structure conforms to the conventional pictorial model of figure and ground. Yet, as in van Eyck's convex mirror, the viewer, confronted by the

two film projections on either wall of the gallery, does not know where to stand. The center of the horizontal spiral, so clearly marked in the filming process by the upright body of the first performer, disappears in the projection of both films in the gallery. The space shifts from moving spiral to static square, and the performers are represented by a double filmic record of their mutually

observed movements in another, outdoor space.

In both the films of *Helix/Spiral*, it was important to Graham that the horizon be visible at all times. The viewer is grounded by the same horizon line used by the performers to measure space, as the camera moves between clear representations of their bodies and abstract close-ups or long shots of the surrounding open space. In effect, as Merleau-Ponty observed, the body becomes "the horizon latent in our experience and itself ever-present and anterior to every determining thought."²¹ Partly inspired by Snow's vertiginous camerawork in films such as *La Région Centrale* (1971), Graham's analysis of the body's field of vision articulated



LEFT: Dan Graham. *Body Press*, 1970–72. Two 16mm film loops, color, silent, 8 minutes. Collection of Pamela and Richard Kramlich
Helix/Spiral (1973), Graham's last film work, strongly relates to both *Two Correlated Rotations* (1969) and *Body Press*.

OPPOSITE: Bruce Nauman. *Second Hologram Series: Full Figure Poses (B)*, 1969. Holographic image on glass, 8 x 10 in. (20.3 x 25.4 cm). Collection of Pamela and Richard Kramlich

something that Duchamp had observed sixty years earlier in his examination of the body's role in defining perception: "Gravity and center of gravity make for horizontal and vertical in three-dimensional space. . . . Gravity is not controlled physically in us by one of the 5 ordinary senses. We always reduce a gravity experience to an autocognizance, real or imagined, registered inside us in the region of the stomach."²²

The presence of the body as a major component of projective installations of the 1960s and 1970s emerged in part from the breaking down of boundaries between disciplines that had occurred in stages throughout the twentieth century and reached its apogee in the 1960s. Just as art incorporated dance, dance moved into other disciplines. Morris made constructions for Forti, dancers performed in Joan Jonas' group performances, Yvonne Rainer took up filmmaking, and Forti engaged the object in its most ephemeral form.

In the mid-1970s Forti, who had created and performed iconic dance works such as *Huddle* (1961), made a series of "integral" holograms—three-dimensional clear plexiglass cylinders on whose sides appeared ghostly images of her dance movements. Movement of the body has been mapped by every new technological recording apparatus since the invention of photography. The early 1970s saw the emergence of holography as the newest such medium, following the revolution created by the real-time, instant feedback potential offered by video. Holography's small scale and photographically based silent format ensured that it would never achieve the impact and popularity video enjoyed. But its intimacy and mysterious film-based virtual three-dimensionality offered another kind of visual experience grounded in nineteenth-century optical mechanisms rather than in the real-time popular culture of television.

In Forti's *Striding Crawling* (1977), an 18-inch-high plexiglass cylinder is balanced on top of three bricks. In the middle, underneath the cylinder, a small candle burns. The only source of light in the room, it illuminates a delicate hologram of Forti making a single fluid movement from striding to crawling, which is activated by the viewer's own movement around the circular plane. Evoking Plato's cave, it also throws large shadows of the cylinder and the viewers around the walls.²³ Harnessing the most advanced visual technology of the day to ancient elements (flame, clay bricks, shadows), Forti creates a pre-cinematic moving image animated simply by the viewer's movement.

The ability to conjure Forti's dancing movement at will by moving around the cylinder evokes one of the earliest examples of the viewer bringing a coherent image into being: Hans Holbein the Younger's painting *The Ambassadors* (1533). The anamorphic image of a skull in the foreground can be read only when the viewer moves from a position directly in front of the painting to an oblique angle at the extreme right. The anamorphic skull—-independent of the rest of the composition, floating weightlessly in space above a shadow created by a third, unseen light source, described by a separate vanishing point, almost solid in its three-dimensionality—anticipates the radicality of Forti's holographic form. The holographic image is unique in that it is not attached to a fixed surface. Created from laser light and partly silvered



mirrors, as Douglas Tyler explains, it exists both in front of and behind the holographic plates from which it emanates, a condition that lends it sculptural properties.²⁴ Like Anthony McCall's conceptual film *Line Describing a Cone* (1973), it possesses volume but not mass. Its existence both in front of and behind the conventional plane of two-dimensional space achieves a four-dimensionality Duchamp had only dreamed of. Just as Holbein's skull inserts itself between the picture and the viewer, reminding us that death can interrupt the continuum of life, Forti's body, detached from a fixed surface, oscillates between a still and moving image, brought to life by the movement of the viewer one minute and left suspended in frozen motion the next.

The series of frozen moments that becomes visible as the viewer moves to the pace of a film in extreme slow motion evokes the serial studies of motion undertaken by the nineteenth-century photographer Eadweard Muybridge. It also recalls the chronophotography of the scientist Etienne-Jules Marey, who sought to map, photographically, the role of time and space in the creation of movement. The similarity of the small cylindrical form of *Striding Crawling* to nineteenth-century protocinematic optical structures, such as the magic lantern, the zoetrope, the praxinoscope, and peep shows, connects Forti's hologram to a similar social and cultural moment, in which the rapid development of industrial production triggered an analytical approach to the body and its relationship to space through the use of mechanized recording apparatuses.

The miniaturization of Forti's body in relation to ours creates a sense of voyeurism, made stronger by our sense of the power we have to induce her movement through our own. Yet



FAR LEFT: Hans Holbein the Younger. *Jean de Dinteville and Georges de Selve (The Ambassadors)*, 1533. Oil on wood, 81½ x 82½ in. (207 x 209.5 cm). National Gallery, London



LEFT: *Marvelous Altar (according to Heron)*. Engraving, 1800s. An early precursor of Simone Forti's moving figure captured within a transparent cylinder, this engraving depicts a Greek temple altar as described by the engineer Heron of Alexandria.

OPPOSITE, TOP: Etienne-Jules Marey. *Saut de pied ferme, longueur: sol glissant*, c. 1882. Chronophotograph, 1⅞ x 5⅞ in. (3 x 13 cm). Collège de France, Paris

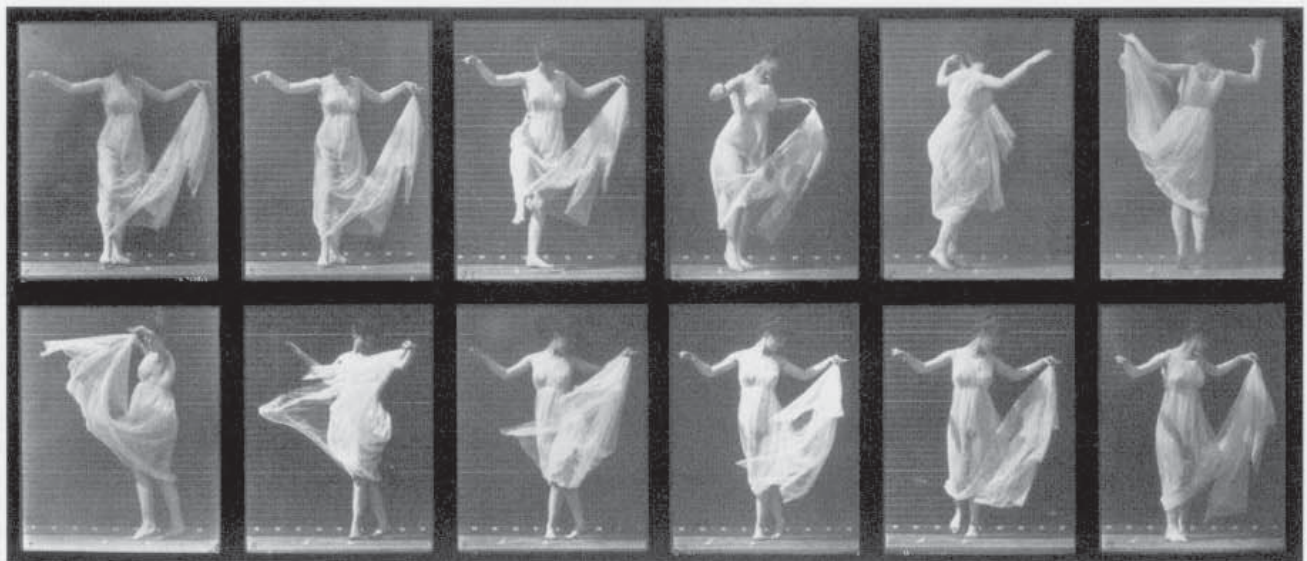
OPPOSITE, BOTTOM: Eadweard Muybridge. *Animal Locomotion: Dancing Girl (detail)*, 1887. Collotype, 14¾ x 19¼ in. (37.4 x 48.9 cm). Victoria and Albert Museum, London

her image will move only as fast as we do. The correlation between her movement and ours reflects the structure of the hologram's making. Forti's image comprises individual still film frames condensed into a sequence of vertical lines. As Tyler points out, our eyes see each line separately, but fuse them together stereoscopically.²⁵ Evoking Duchamp's stereoscopic constructions, this unprecedented structure positions Forti's hologram somewhere between film and sculpture.

The viewer's participation in the creation of the image sets *Striding Crawling* apart from its precursors. Yet its industrial context recalls the mechanism that drove the so-called Marvelous Altar of ancient Greece described by the Greek engineer

Heron of Alexandria: "Fire being lighted on an altar, figures will appear to execute a round dance. The altars should be transparent, and of glass or horn. . . . When the fire of the altar is lighted, the air, becoming heated, will pass into the tube; but being driven from the latter, it will pass through the small bent tubes and . . . cause the tube as well as the figures to revolve."²⁶ By contrast, the radical mechanism that drives *Striding Crawling* is hidden. Fire in Forti's structure operates not as pneumatic force, but as literal and symbolic illumination. The small candle occupies the middle of the cylinder, its presence a symbol, as the guru Pran Nath has suggested, of a centered state of mind. Forti's striding and crawling, derived from the natural movements of animals and t'ai chi, use physical movement to similarly center the body and communicate a mental and spiritual equilibrium.

Where we encounter Forti's image, miniaturized, in the shadows of a darkened space, in Peter Campus' video installation *aen* (1977), we encounter our own image made gigantic. *aen* is one of the last in a group of closed-circuit video installations Campus made during the 1970s, in which the viewer becomes the subject of the work. Campus uses reflection, shadows, mirroring, and projection to disorient us



perceptually, and to obscure our familiar understanding of our own reflected image. In *aen*, the darkened space gradually reveals the viewer's head and shoulders, captured by a video camera, inverted and projected on the wall on a gigantic scale. The inversion of the image recalls not only a camera obscura, or a concave mirror, but the retinal structure of vision itself, in which the image appears upside down at the back of the eye and is corrected by the brain. This inversion causes a reverse movement, so that when the viewer's body shifts to one side, the head moves to the other.

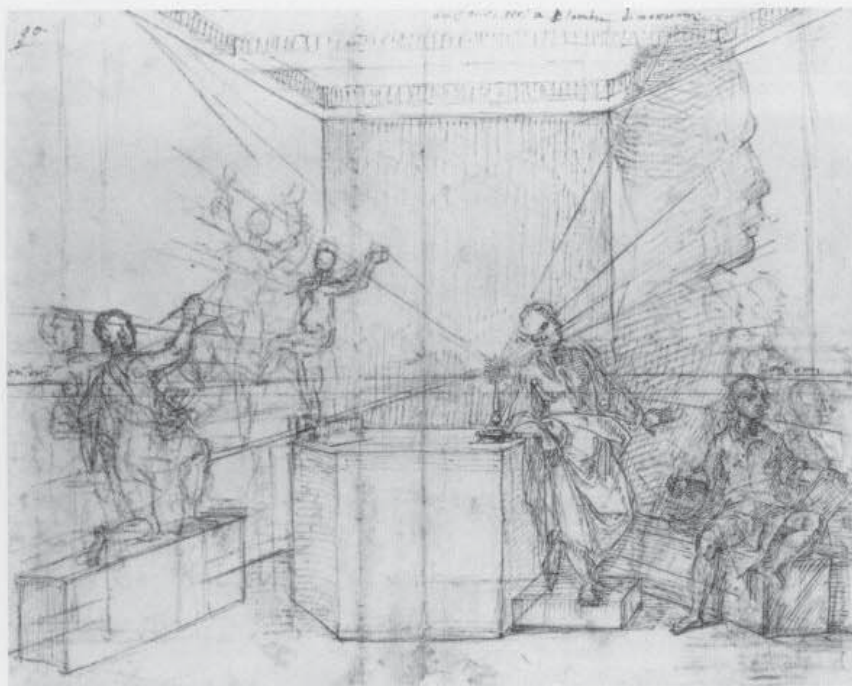
Robert Pincus-Witten, writing about Campus' work in 1976, argued that

theatricality and temporality had become driving impulses for establishing a new groundwork for painting and sculpture following the collapse of formalism. Yet, he observed, Campus' silent installations in turn imposed a static vision of painting and sculpture onto technology, demonstrating technological art's debt to art history.²⁷ In a drawing of c.1500 attributed to the school of Leonardo da Vinci, a man standing in front of a candle creates a large shadow on the wall behind him; a colleague draws another shadow, thrown by a small statue onto a wall nearby. The drawing exercise appears to betray a deeper psychological exploration. Campus' own shadow reflections operate similarly on both a formal and psychological level, simultaneously as an aspect of three-dimensional form and as an externalization of the inner self.

As Victor Stoichita explains, the belief in the shadow as an aspect of the soul stretches back to ancient Egypt and Greece.²⁸ Acting as a person's double in life, the shadow disappears in death and is taken over by the spirit. In Campus' installations, the viewer is confronted not by the shadow as seen in daylight, but by a ghostly nocturnal reflection of the self, which appears in a disconcertingly dematerialized form. In a videotaped interview, Campus spoke of wanting viewers to encounter their spirit or, as he stated, *ka*, implying a premonition of death. In 1975, he described his own experience of his installations: "Very dark room . . . Rishi cave, perhaps a neolithic cave painting illuminated by flickering light, the camera obscura. . . . The presence of the wall next to me, the emptiness behind, the surrounding blackness and sound all co-ordinating the senses. . . . Photons of light penetrate the wall. . . . I let myself go into this extension of self. For a brief moment I am at the same time this image and this self."²⁹ This description seems almost to presage the experience of slipping into death: after *aen*, Campus went on to make a video installation titled *Head of a Man with Death on His Mind* (1978).

The notion of the double, which Freud described as an insurance against the destruction of the self, or death, became important for artists during the 1970s, especially those using the mirroring, real-time feedback properties of video. In art,

the double usually performed two roles: an assertion of the self's existence and an expression of the fragmented, split self. In other words, an apparent fusion *with* the self through projection is, simultaneously, an encounter with the difference *from* the self. During the 1970s the shadow self, demonized as the unacceptable alter ego since the sixteenth century, became a subject of liberation, using ideas drawn from social theory, behavioral psychology, and psychoanalysis. Where Campus' early interactive projective installations presented the viewer in two images, as inherently split, in *aen* the image is a single face, writ large in the dark space of the gallery. The defamiliarized image of our inverted heads shifts this



After Leonardo da Vinci.
"Study of Shadow Projection."
In *Codex Huygens*, c. 1500.
Sheet 5 1/4 x 7 7/8 in. (13.3 x 18.1 cm).
The Pierpont Morgan Library,
New York; MA 1139, f. 90

resemblance between existential confrontation and a formal inquiry into space, surface, and scale, bringing the shadows of Plato's cave into the rationalized white cube of the gallery.

The enmeshing of formal concerns with subjective experience was a hallmark of the postmodern eclecticism of 1970s art. In 1973, Anthony McCall made the first film to occupy a three-dimensional presence in space. *Line Describing a Cone* combined the phenomenological reductivism of Minimalism with the participatory inclusiveness of Happenings to create an ephemeral projection event. In a complete reversal of conventional cinematic viewing, the audience stands in a darkened empty space, watching the film by looking directly at the light beam as it emanates from the projector. Over a period of thirty minutes, the slim pencil of light slowly evolves, first into a curved plane of light, then into a large hollow cone formed by the image, projected on the wall, of a circle being drawn in the darkness. As McCall observed, the process of the film's realization becomes its content.³⁰

The structure of *Line Describing a Cone* was born out of McCall's desire to create a complete art work from a single idea. Restricting the form and content of the film to what was irreducibly cinematic, he drew on the prevailing conceptual climate of the early 1970s, including the experimental film environment of the filmmakers' cooperatives in London and New York, where filmmakers were creating a new process-based, anti-illusionist cinema. The structure of the film was also influenced by the conceptual purity of Snow's film *Wavelength* (1966-67), which apparently comprised a single forty-five-minute zoom shot of his New York loft from the far side to the opposite wall, ending in an extreme close-up of a photograph pinned to the far wall.³¹ As Rosalind Krauss observed, Snow's film created "a spatial analogue for the experience of time."³² In *Line Describing a Cone*, McCall makes this spatial analogue both abstract and concrete. Each stage of the cone's making is marked by the line of the circle gradually forming on the wall at the cone's widest end. McCall turns the forward motion of Snow's "time-shape" into an ephemeral three-dimensional volumetric form, which does not traverse two opposite points in space, but describes the area between them through the tangible presence of light.

At some of the earliest Japanese screenings of film at the beginning of the twentieth century, rows of seats were placed parallel to the projection beam, so that spectators could observe what Barthes has described as "the dancing cone which drills through the darkness of the theater like a laser beam. This beam transforms itself according to the rotating movement of its particles. . . . We turn our face toward the traces of a flickering vibration whose imperious thrust grazes our head from behind. . . . As in the old hypnosis experiments, we are entranced by this brilliant, immobile and dancing surface, without ever confronting it straight on. This beam of light seems to bore a keyhole for our stupefied gaze to pass through."³³

In *Line Describing a Cone*, McCall shifts Barthes' imperious film beam, situated over our heads, into a democratic participatory field that almost touches the ground. We are invited to walk into its hollow cone, to lie under it, look into it, stand inside it, move our hands over the top of it, and drift through it, disappearing into its volume like mist, only to reappear on the other side, like Alice in *Alice Through the Looking Glass*: "Let's pretend there's a way of getting through into it somehow, Kitty. Let's pretend the glass has gone all soft like gauze, so that we can get through. Why, it's turning into a sort of mist now, I declare!"³⁴ Like Snow's *Two Sides to Every Story*, the surface of the film screen (looking glass) has been ruptured, freeing the viewer to experience an infinity of multiple viewpoints and

planes through a physical movement around the film.³⁵

This intensely corporeal experience, resulting from McCall's reading of film as a tangible, sculptural form, is also strongly perceptual, evoking the relationship between idea and form in the work of Sol LeWitt. In structures such as LeWitt's *Incomplete Open Cubes* (1966), the mind automatically completes the missing side of each cube. In *Line Describing a Cone*, the mind similarly completes the missing part of the cone at each stage of its progress. The introduction of temporality allows us to witness the cone's formation over time, our minds anticipating the gradually appearing curved surface as the circle is drawn.

This conceptual engagement of the viewer in temporal terms is echoed in the reversed spatial relationship between viewer and image, which overturns the frontal perspective of the cinema (and, before that, of the camera obscura). Instead of the viewpoint emanating outward from the viewer's eye, for which the projector forms a surrogate, we turn backward toward that viewpoint, reorientating ourselves *within* the space of perspective, rather than as removed observers of it. The combination of architectonic perspective, volume, and temporality may have been what made McCall's film of interest to both Gordon Matta-Clark and Richard Serra.³⁶ In dismantling the space of conventional cinema and introducing multiple viewpoints, *Line Describing a Cone* produces a volumetric form which, in its ephemeral yet tangible solidity, fuses the properties of film, sculpture, performance, and Conceptual art.

McCall's concern with the actuality of time, place, and material was echoed by Paul Sharits, who commented that the projection of a film image directly onto the wall, rather than onto a screen, corresponded to Carl Andre's placement of his sculptures directly on the floor.³⁷ In the reduc-

tiveness of Andre's thin, flat floor works, which removed the allusion not only to the pedestal but to sculptural volume itself, Sharits saw a parallel with his own desire to erase pictorial representation and reveal the material substance of cinema in its purest form. Where McCall made the projection beam the subject, in the film installation *Shutter Interface* (1975) Sharits made visible the role of the camera and projector shutter in constructing the moving image. "Interface" is defined as

both a "surface forming a common boundary between two regions" and a "point where interaction occurs between two systems."³⁸ In Sharits' installation, the shutter's physical and temporal interface with the film strip is revealed to be, as Krauss has observed, "the bridge between the still image and the moving one."³⁹

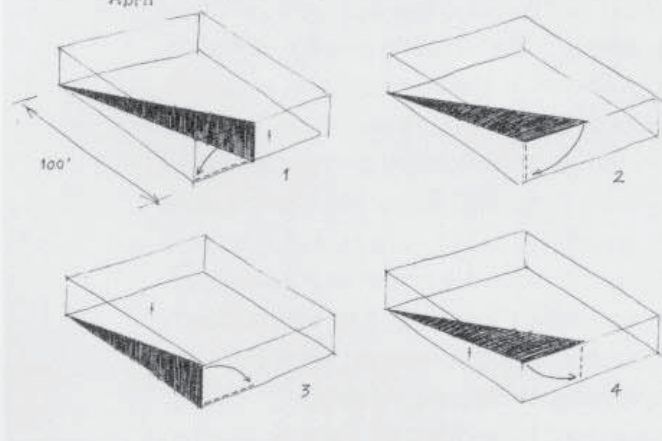
Sharits' installation uses this bridge, or interface, to make visible to the viewer the individual frames of a film as it passes through the gate of the projector. On the wall of a darkened gallery, a large horizontal band of seven overlapping rectangles of pure color flickers and pulsates, as different colors ricochet from left to right in a series of mathematically determined combinations. The division of the band of

LEFT: Anthony McCall. Diagram for *Four Projected Movements*, 1975. This 16mm black-and-white film was projected against the wall the right way up, upside down, back to front, and inside out.

OPPOSITE: Gordon Matta-Clark. *Conical Intersect*, 1975. Color photograph documenting Matta-Clark's sculptural action in Paris in 1975.

Matta-Clark cited Anthony McCall's *Line Describing a Cone* as the inspiration for *Conical Intersect*. Matta-Clark's ideas regarding built space and his "an-architecture" projects paralleled many of the phenomenological experiments with perception, space, and the body that were undertaken by artists using the projected image.

FOUR PROJECTED MOVEMENTS 16mm film Anthony McCall 1975
The Serpentine Gallery, Kensington Gardens, London W2. Admission free.
Tuesday March 22 1975, 4pm through 8. One cycle 75 minutes.
April



colored rectangles into a series of nonhierarchical, nonrelational parts evokes the structure of Minimalist sculpture. The abstract colored forms of the multiple screens bear a stronger resemblance to Color Field painting. But the strongest influence on Sharits' temporal structure is drawn from Minimalist music. His use of vibrant colors, combined with an abstract soundtrack that punctuates each shift in hue, creates a percussive composition, in which each flicker is like a beat or musical note. The multiple screens allow a musical correspondence to develop between one and another across time. As Stuart Liebman explains, when hues in a series are far apart, their sequencing appears to have a more staccato form; when they are more closely related, "a gently rippling chromatic wave washes across the wall."⁴⁰

Liebman's description illustrates the unique parallels between film and music. Sharits broke down the shared temporality of music and film into its constituent parts and married abstract film frames with individual beats, or notes, to create a synergy of optical and aural units. The flashing of static frames of color on each screen at high speed creates a tension between the still and moving image, as the alternation between screens creates a suggestion of forward movement that the static colored frames hold back.

This perceptual autism arguably makes oblique reference to epilepsy, a subject important to Sharits, who studied the significance of the flicker in diagnosing and studying epileptic seizures. In his notes on the film installation *Epileptic Seizure Comparison*, made the year after *Shutter Interface*, he quotes the neurosurgeon Dr. W. Grey Walter's description of the brain rhythms of subjects during a quiet phase of an epileptic seizure: "their brain rhythms tended to be grouped in frequency bands. It was as if certain major chords constantly appeared against the trills and arpeggios of the normal activity. This harmonic grouping suggests that if a masterful conductor were introduced, the brain could be made to synchronise in a grand *tutti*, to develop under controlled conditions the majestic potentials of the convulsive seizure."⁴¹

Shutter Interface, which Sharits described as a "color space," is a three-dimensional metaphor of the space of the brain in an epileptic state, brought under control and harmonized. The interiority of the work draws the viewer into a mental state of perceptual reverie. As in McCall's *Line Describing a Cone*, *Shutter Interface* combines a rigorous conceptual structure with an aesthetic sensuality, which allows the viewer to take in the intensity of his work, and holds it in place. Sharits' understanding of the paradox between rigor and beauty is revealed in his poetic description of the surface of the film image seen in extreme close-up: "a forest of TRANSLUCENT PASTEL SLIVERS glowing negative diamond crystals (the molecular 'surface' of a mirror 'blown-up' to the extent that it appears to be a 'three-di-mension) ALandscape:pe."⁴²

Sharits' shift of the film image from illusionistic mirror to abstract surface reflects



the importance he attached to what he described as the prevailing impulses of 1970s culture and artmaking: investigation, measurement, documentation, methodology as subject matter, art as research. Within this analytical context, it was fitting that his inquiry into the phenomenology of cinema and the mechanics of film should adopt the structure of music, with which film shares a resonance with the physics (and metaphysics) of color.

The horizontality, seriality, and musical structure that underpin *Shutter Interface* were important elements for art being produced in a range of media during the early 1970s. The emphasis on seriality, in particular, was an indication of the extent to which models of industrial production had become integrated into the production of art. Like Sharits, whose *Shutter Interface* installation deals with the very process of mechanical reproduction, Beryl Korot used a serial structure to create a conceptual narrative. In her video installation *Dachau 1974* (1974), four video screens set into a white wall create a horizontal strip of moving images that suggests, at first glance, the serial photographic sequences of Muybridge. However, the moving images do not read linearly, but are structured as two sets of interlocking patterns. It is through the syntax of these units that forward movement occurs.

Dachau 1974's structure conforms to the Minimalist vocabulary of industrial forms: nonhierarchical, gridded seriality. Within this grid, each set of units presents a series of black-and-white shots of the concentration camp in Dachau, Germany, in a topographical study of a place of horror. Korot chose to videotape the camp in the present to discover what it might tell us about the past. In its present role as tourist destination, Dachau has become a repository of memories that people would prefer to forget but cannot, and perhaps should not, leave behind. Through Korot's carefully woven structure we are taken on a journey through the camp, from outside its walls to a stream on the other side of its perimeter. The intense emotional significance of the journey is contained by the conceptual format of the sequence, which guides us slowly forward in pairs of symmetrical shots.

The viewer's involvement in the narrative of *Dachau 1974* is intensified by the fact that, at any given moment, each pair of two apparently identical channels shows the same vista at slightly different moments. Often the difference between them is detectable only by the slightly varying distances of the tourists walking through the space, who become topographical markers of time and place. The viewer's attention is obliged to move backward and forward among all four screens to establish the location and time of each step of the journey. Sometimes the same view will be seen in close-up on one monitor and at a distance in the other. This conceptual device engages the viewer perceptually, creating a synergy between a rational analysis of the viewing experience and an emotional engagement with the subject matter.

As in Sharits' film installation, the images in *Dachau 1974* are punctuated by black frames. As Amy Taubin suggests, these moments of blackness, which create a contrapuntal rhythm, represent the place where one looks away, or the signs of what cannot be shown or even thought.⁴³ *Dachau 1974*'s structure, influenced by LeWitt's gridded structures, the notational sequences of new music, and Korot's experience as a weaver, is musical; and Taubin describes its viewing as "midway between hearing and reading a score." This score, presenting differences in time in identical material, influenced by the time delays in Frank Gillette and Ira Schneider's video installation *Wipe Cycle* (1969), creates a technological and conceptual equivalent of woven cloth. The horizontal threads of the four monitor

images, alternating in a clear rhythmic pattern, are woven into the vertical "threads" of time, measured both by the clock and by the vector of the topographical journey through the camp.

Korot's insertion of emotionally charged subject matter into a conceptual framework, combining a manual practice marginalized as women's craft with an intellectual idea applied to technology, reflected a contradiction inherent in the pluralism of 1970s artmaking. As Hal Foster has argued, the roots of this contradiction lie in the tension between individual creativity and industrial production that had existed since the Industrial Revolution.⁴⁴ Central to the early work of both Korot and Mary Lucier (who had studied photography in the late 1960s) were the procedures of seriality and repetition. Repetition became a method of, to paraphrase Foster, subverting representation and undercutting its referential logic.

In 1969, Mary Lucier began collaborating with her husband, the composer Alvin Lucier, with whom she had been touring and performing since the mid-1960s, to produce *Polaroid Image Series #1*. Alvin Lucier had composed the classic sound work *I Am Sitting in a Room* earlier the same year. For *Polaroid Image Series #1*, Mary Lucier created a series of Polaroid images, to be projected in the same room as the sound piece on 35mm slides. In *I Am Sitting in a Room*, Alvin Lucier plays a recording of himself reading a text describing the process of the work's making:

I am sitting in a room different from the one you are in now. I am recording the sound of my speaking voice and I am going to play it back into the room again and again until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed.

What you will hear, then, are the natural resonant frequencies of the room articulated by speech.

I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities my speech might have.⁴⁵

The sound is reproduced over and over and becomes increasingly abstract and unintelligible as a phonetic representational form. The text functions as a score whose directions, like those for LeWitt's wall drawings, can be carried out by anyone.

Mary Lucier's *Polaroid Image Series #1* began with a Polaroid photograph of a room—specifically, a corner of the room in which Alvin Lucier had made the sound work, and the chair in which he sat as he had described the process of making the piece.⁴⁶ *Room*, as this particular image is also titled, thus becomes not merely a photographic parallel of the sound work, but its visual equivalent. This equivalence recalls LeWitt's *Location* drawings, begun in 1974, in which geometric forms drawn on a page are partially filled in with precise penciled descriptions of their location on the page and in relation to each other.

The relationship between the visual and aural elements in *Room* is complex. While the sound work exists without its visual parallel, in many different renderings, *Room* can exist only in the combination of slides and sound, and its image is unique. The photographic representation of the room in which the recording took place becomes quickly abstracted. The room remains intact conceptually, however, since it is the aural chamber through which the increasingly abstract sound is projected, recycled, and processed. In other words, although the spoken text degenerates into unintelligibility, the space in which it was recorded remains a constant

presence as the architectural filter through which the abstraction occurs.

This interplay between presence and absence recalls Krauss' theorization of the contingency of presence in artmaking of the late 1960s and 1970s. The fragility of presence is implied here on several levels: in the increasingly abstract sound recording of the room's aural presence; in the image of the recently vacated chair from which Alvin Lucier recorded the text; and in the process of abstraction, as each black-and-white slide systematically obscures the representational image.

The degeneration of the image in *Room* and all the other versions of *Polaroid Image Series*, including *Shigeko* (a portrait of the video artist Shigeko Kubota), *Croquet* (a photograph of a group of people playing croquet), and *City of Boston* (the skyline photographed from Cambridge, at midday), shown in this exhibition with *Room*, weakens technology's role as producer of the endlessly perfect duplicate. This, in turn, challenges the overarching principle of sameness in replication, seen in industrial production, adopted by both Minimalism and Pop, and absorbed by all temporal art of the period. Both visual and aural aspects of *Polaroid Image Series #1* undermine the industrial model by interjecting manual manipulations into the automatic machine-based operation of duplication. The end result could, after all, have been achieved in half the time. But for Mary Lucier and Alvin Lucier, the slow process of repeated manual actions, and unpredictable details such as flecks of dirt, light changes, and slight shifts in alignment, were essential to the production of the work.

Alvin Lucier's understanding of sound and language as units of measurement, or physical facts, and their dependence on the room in which they were made, underlies a deeply hidden, personal aspect of the sound in *Room*. As the text explicitly states, "I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities my speech might have." The work moves beyond a self-reflexive exercise in sound into a public acknowledgment of a personal struggle with a speech impediment, in which the complex repetitions of sound reflect not merely the aesthetic possibilities of mechanical recording, but an attempt to come to grips with a physiological and psychological issue. As in *Dachau 1974*, emotive subject matter is contained within a strict formal structure. Representation, suppressed by seriality and repetition, uses both to reassert itself in a symbolic form.

In the image of *Room*, the personal is similarly made present in the abstraction, or disappearance, of a domestic space. Mary Lucier's relationship to the spaces of home has always been ambivalent. As Melinda Barlow points out, this ambivalence has been worked through in the rooms, corridors, and houses that have been major themes in Mary Lucier's work since *Polaroid Image Series*.⁴⁷ In *Room*, the gradual disappearance of the image of the room at the same time as coherent speech slips away suggests a loss of the entire structure of domestic existence and, in the increasingly muffled reverberations, a corresponding loss of self.

The loss of self, like the loss of a center, became a major theme in art of the 1970s. The process-based nature of art during this period allowed an exploration of subjectivity that interacted with, and in many cases undermined, the theoretical, philosophical, and aesthetic values of the previous generation. The early video and performance work of Joan Jonas epitomized this shift with a viscosity that embraced ancient ritual, the body, dance, esoteric knowledge, identity, female

RIGHT: Joan Jonas performing *Mirage* at Anthology Film Archives, New York, 1976

FAR RIGHT: Joan Jonas. Still from *Mirage*, 1976. Film projected during performance at Anthology Film Archives

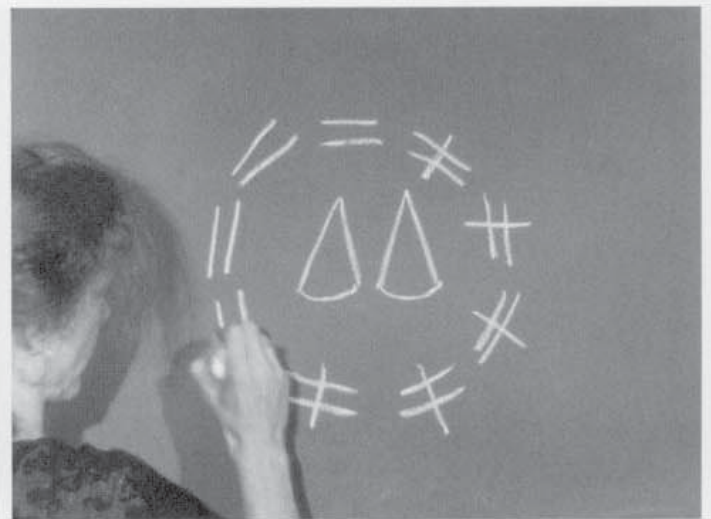
desire, and transformation. *Mirage* (1976), the last in the group of what have come to be known as the “black-and-white” performances, took place at Anthology Film Archives at 80 Wooster Street in New York.

Since *Organic Honey's Visual Telepathy* (1972), Jonas had been combining film and video in her indoor performances. In *Mirage*, film and video are combined in both the making of the imagery and in the performance itself. Like Sharits and Snow, Jonas dismantles the conventional reading of film within the cinema space. But whereas in *Shutter Interface* and *Two Sides to Every Story* the cinema auditorium is replaced by the perambulatory space of the darkened gallery, in *Mirage* the dismantling takes place within the auditorium itself. The performance retains the traditional seated frontality of the viewer, and the perceptual shift occurs in the space immediately in front of the film screen, where live action, video, and objects are situated directly in front of the screen, and in relation to it.

In this conflation of the cinema and the theater space, the film screen becomes a frame for the overall performance, changing its shape according to the various scenes, from the normal aspect ratio to a horizontal then a vertical rectangle, in

front of which action takes place. For most of the performance, the screen remains blank. It is as though the content has been erased from the screen and pulled out into the space of the auditorium, in a metaphor of the demise of two-dimensional painterly representation.

When a film does finally appear on the screen, its content becomes the subject of the rest of the performance, and all the live action and video imagery relate to it.⁴⁸ On the



surface of a blackboard, Jonas draws a series of diagrammatic shapes in white chalk. Cones, lines, circles, stars, and animal forms create a sequence whose pattern, rhythm, and logic resemble a sentence. After each image is drawn, Jonas wipes the surface of the blackboard clean and draws the next. The ephemerality of each drawing was inspired by a rare screening at Anthology Film Archives of the raw, unedited footage of Maya Deren's last film, *Divine Horsemen—The Living Gods of Haiti* (1947–51), which included repeated shots of Voudon ritual sand drawings, or *vèvè*. Jonas also stated that “reading the essays in *Spiritual Disciplines*, I got [an] idea to use drawings . . . which I called ‘Endless Drawings’ after those described

in the Melukean Book of the Dead, the tribal ritual book of New Guinea. There it says that in order to go from one world to the next you must finish a drawing in sand which an old lady, the devouring witch, begins at the boundary between life and death."⁴⁹

Jonas implicitly places herself in the role of the "devouring witch," who marks the interface between life and death through drawing and whom she must, herself, confront. The delicate interface is arguably expressed in the dialogue between live and recorded action, in which the viewer is left unsure of where to locate the final meaning, and of which event, the recorded or the live, is, in the end, more real. Jonas' performative actions reinforce the temporality of her on-screen drawings, whose tactile beauty and accomplished execution are, like so much of the process art of which they are a part, deeply material in their form, but ephemeral in their existence.

The strongly cinematic aspect of *Mirage* is underlined in the second part of the film, in which Babette Mangolte filmed a video sequence of Jonas stepping repeatedly through a hoop, as it appeared live on a television monitor. Both camera and monitor were turned onto their sides, so that the image appears, unusually for video, in a vertical orientation. The image in the frame is repeatedly interrupted by the vertical hold moving from left to right in a flickering, staccato movement, which gives the moving image a filmic quality and evokes a Muybridge-like sense of seriality.⁵⁰ Jonas is made distant by her multiple framing: within the film; within the monitor's box; within the parameters of the monitor screen inside it; within the frame created by the vertical hold's perpetual movement from left to right; and within the circle of the hoop, into and out of whose frame she continuously

steps. The jerky backward movements created by the vertical hold appear to pull her image back toward us just as it is about to disappear, reversing film's illusion of forward movement and punctuating the image with an insistent percussive sound, like a metronome.

Seen in the context of an exhibition, *Mirage* raises important issues of how to re-present the space and

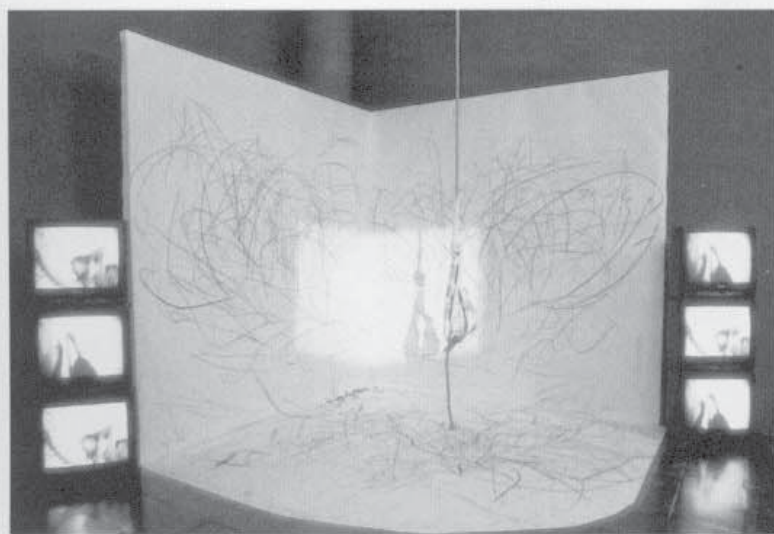
time of a site-specific performance decades later, in the static context of the museum space. Pamela M. Lee has articulated what she terms the "double time" of an art work: the temporality of its own internal structure and the changing perceptions of it across a historical trajectory.⁵¹ The issue of presenting performance art as an installation at a later time and in a gallery space has been confronted by a number of artists, among them Joseph Beuys, Marina Abramović, and Carolee Schneemann, who resolved it by creating installation versions of their performances.⁵² In so doing, they produced a double time frame for a single event.

In Jonas' *Mirage*, the installation re-presents the key moving image elements

LEFT: Carolee Schneemann. *Up to and Including Her Limits*, 1971–77. Installation at the New Museum of Contemporary Art, New York, 1996.

In Schneemann's performance of the same title, she made evident the performative process of drawing. Swinging from a tree surgeon's harness, which she raised and lowered as she drew on paper attached to two walls, she created a web of crayon marks in the light of a film projector beam. These large drawings—traces of the body in motion—were subsequently presented as an installation, with the harness, film projector, and monitors documenting the performance.

OPPOSITE: Dennis Oppenheim. *Echo*, 1973. Two 16mm film loops, black-and-white, sound, projected simultaneously. Installation at the Museum of Conceptual Art, San Francisco, 1973. Collection of the artist



from the performance: the uncut film and the videotapes *May Windows* and *Good Night, Good Morning* (both 1976). These re-edited fragments and outtakes are what Jonas terms "repressed material," which could easily have been included in the original performance, and appears in its installation version as a marker of the work's open-ended, process-based form.⁵³ The work is presented not as a static stage set without the actor, but as the trace of a live event, whose energy, sensibility, and meaning are communicated through fragments of recorded actions.

The stubborn retention of the concept of originality in the face of its ubiquitous dismantling during the 1960s and early 1970s ran parallel, paradoxically, with the myth that artists during this period rejected the white cube of the gallery. In fact, the gallery space became more critical than ever before, as a structure and symbol within or against which temporally based art works of all kinds could be shown, performed, documented, referred to, or measured. Each work in this exhibition engages directly with the space of the gallery, even as it rejects its traditional spatial and presentational parameters. During this period, the gallery became the oedipal body of the parent, against whose rigid modernist walls the art work flung itself.⁵⁴

Dennis Oppenheim's film installation *Echo* (1973), in which four black-and-white films of a hand slapping the wall are projected onto the four walls of the gallery, represents, along with Barry Le Va's *Velocity Piece #1* (1969), one of the most concrete examples of an attempt to overcome the physical impasse of the gallery.⁵⁵ Where Oppenheim strikes the gallery wall with his hand and records the action on film, Le Va hurls his body against the wall and records it on audiotape. Like Le Va's act, Oppenheim's demonstrated the frustration produced by the limitations the walls represented in terms of psychological, philosophical, and physical containment.

Oppenheim's film installation followed his earthworks of the late 1960s, which had already brought the gallery, and the entire urban environment, into question as a viable context for art-making. As he made the shift from "the earth as site to the body as site" in the early 1970s, he began increasingly to work with his own body as both a material and a tool.⁵⁶ Like a group of little-known early films shot before it, *Echo* is characterized by its concern to define authenticity and economy through the body's force acting on itself. This concern reveals



the extent to which, as Oppenheim has stated, his work retained traces of the influence of Minimalism.⁵⁷ The simple action of the hand slapping the wall in *Echo* symbolically removes not only the canvas from the wall of the gallery, but the paintbrush and even paint itself. Oppenheim pares the act of mark-making down to its most direct form: the surface of the artist's body meeting the surface of the wall. *Echo* is probably the artist's most reductive statement. Although it retains the body as the site of meaning, it is the body's most elemental force, its energy, that becomes the subject.

The resistance of the wall to the body in *Echo*, and of the body to the wall, made

concrete the boundary between the self and the outside world. This was becoming important in a period where such boundaries seemed increasingly contingent, weakened by the social and political upheavals of the late 1960s and by the growing sense of global interconnectedness brought about by the explosion of mass-media communication. *Echo* emerged out of three earlier films involving hands, shot by Robert Fiore in 1969 (the same year that Richard Serra made his four hand films, which Fiore also shot). *Echo* signaled the beginning of Oppenheim's attempts to mark the boundary between interior and exterior.

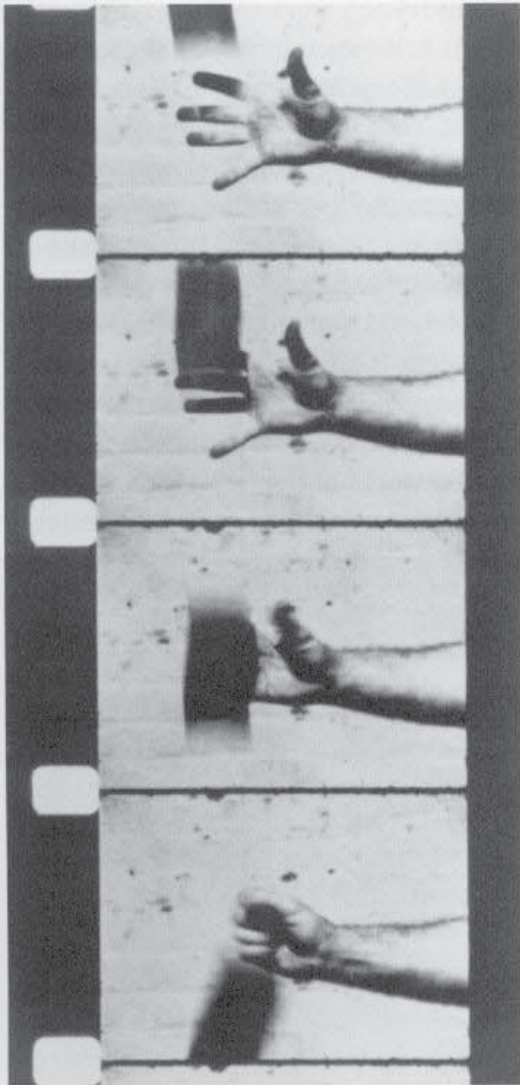
At the same time that Oppenheim's focus on determining the body's physical limits functioned as a means of self-definition, it also, paradoxically, involved an extension of those boundaries into external space. In *Echo*, his repeatedly moving hand is replicated on each wall of the gallery via the film projector, demonstrating

another touchstone of Minimalism, and of photography before it: repetition by industrial means. The appearance of hands as film imagery following the disappearance of the traditional manual facture of artmaking occurs in the films of Oppenheim, Serra, and Yvonne Rainer, all of which involve actions using a single forearm and hand seen close-up. Each hand performs a task-based action evoking its respective skills—in Serra's case, catching lead, bearing its weight, or handling metal filings; in Rainer's, moving each part of the hand as though stretching the body. Physical tasks, no longer necessary for the making of art, are abstracted into the construction of its meaning. In Oppenheim's *Echo*, the hand literally echoes his own use of the body to measure his physical limits and that of space around him.

The extension of the body through duplication is repeated in the four different echoes, whose syncopation lends the piece a strong musical aspect, evoking the percussive sound works of Steve Reich. It is not the slapping of the wall per se that interests Oppenheim, but what trace remains of the act once it has been completed. The trajectory of the aural reverberations of Oppenheim's slap into and around the room could be read as a kind of invisible casting, corresponding to the shape made by the pressing of his arm into asphalt in his film *Arm and Asphalt*, for example. In *Echo*, the echoes are moved around the room through carefully placed speakers, extending the visual marking of the boundary of the gallery by his hand into an aural delineation of space. Oppenheim's use

of repetition to articulate space could be likened to Serra's *Casting* (1969), in which Serra repeatedly flung molten lead at the juncture between wall and floor and pulled the hardened form into the space of the gallery. Like Nauman, Vito Acconci, and others, Oppenheim pits the moving image against physical space to articulate a psychological anxiety about a loss of identity, boundaries, and self-control.⁵⁸

The construction of identity, as so much theoretical and psychological research in the 1970s confirmed, revolves around language. In spite of the prominence of language in work made during this period, few artists used it in relation to the projected image in installation.⁵⁹ This was not a result of language's location strictly



LEFT: Richard Serra. Stills from *Hand Catching Lead*, 1968. 16mm film, black-and-white, silent, 4 minutes

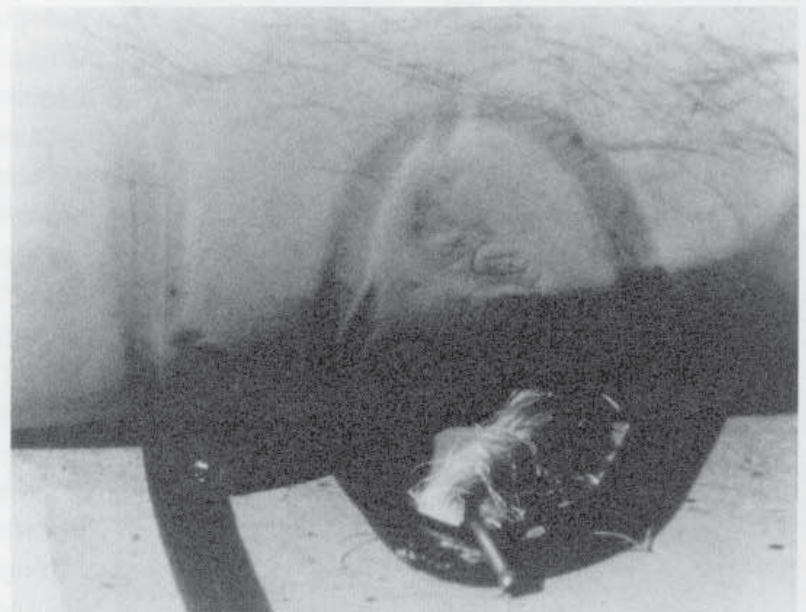
OPPOSITE, RIGHT: Yvonne Rainer. Stills from *Hand Movie*, 1966. 16mm film, black-and-white, silent, 5 minutes. *Hand Movie* was first projected as part of a dance performance by Rainer in 1966; it was later screened alongside Serra's hand films at the Paula Cooper Gallery, New York, in 1969.

OPPOSITE, FAR RIGHT: Dennis Oppenheim. Still from *Arm and Asphalt*, 1969. 16mm film, black-and-white, silent, 6 minutes

within the reductive forms of Conceptual art. It appeared, for example, in Nauman's neon sculptures and sound works; in Oppenheim's sound, slide, and installation works and large-scale outdoor pieces; and in Morris' Duchampian sculptural puns. The emphasis in projective installations on physical space situates meaning not in the Duchampian optical extension of vision into the fourth dimension, but in a phenomenological inclusion of the whole body. In such installations of this period, language is internalized, as the body becomes a *metaphor* for language. It was only later, in the video work of Gary Hill, for example, that the spoken and written word emerged out of the body, in primal utterances, as well as in complex philosophical and poetic metaphors of thinking.⁶⁰

Language found a rare home, however, in the installations of Vito Acconci, whose existential, language-based form prefigured Hill's more reductive linguistic spaces.

Transforming the psychological power fields of his earlier performances into built spaces, Acconci's installations of the mid-1970s operate as a kind of house for a conceptual narrative. *Other Voices for a Second Sight* (1974) constructs an architectural space within the gallery, divided into three parts. Unlike Nauman's architectonic spaces, whose elements abstract the basic formal units of the gallery—walls, corridors, rooms—Acconci's three rooms operate as symbolic spaces. For Acconci, an encounter with his installations echoed the structure of his performance work, which focused on himself: "you" came in "me," walked through "me." The space was from and for me: it



was as if the viewer was walking into my mind."⁶¹ In *Other Voices for a Second Sight*, the contents of Acconci's mind are asserted through his voice, which speaks to the viewer in low, confidential tones, in three interlocking monologues. Barthes described the voice as being "the grain" of the body.⁶² The gravelly, seductive texture of Acconci's voice asserts his presence in an almost tangible form, within an otherwise disembodied space.

The three rooms of *Other Voices for a Second Sight* all represent aspects of Acconci's identity, externalized as two opposites—a black room on the left and a white room on the right—held in place and synthesized by a central room, which

resembles the intimate space of a recording studio. In this central room, Acconci's voice can be heard emanating from a reel-to-reel tape recorder and speakers standing on a shelf in front of an empty chair. The monologue evokes that of a late-night radio program. A blinking red light on the wall above the tape recorder implies that, somewhere, live recording is in progress. This suggestion of voyeurism and hiddenness is reinforced by Acconci's naming of the black room on the left as a "secret room being looked in upon."⁶³ Vertical in shape, the space is dark and crowded, with sheets of plastic zigzagging across, onto which are projected images of Acconci's body and face, alongside images of political posters. The monologue emanating from the space reflects the artist's increasing concern with social and political issues. He speaks in the voice of a string of revolutionaries: Che Guevara, Leon Trotsky, George Jackson, Mao Ze-dong, Franz Fanon, and Abbie Hoffman, who broadcast their revolutionary messages through Acconci. If, as Acconci has stated, his use of language parodies an ordering system that he first establishes and then dismantles,⁶⁴ the ideological cries of the Marxist revolutionaries in the black room underscore the loss of political direction and integrity he and others felt during the Vietnam era. The personal content of the white room is repeated in the recording studio, interspersed with jazz music, radio host chatter, and autobiographical storytelling: "We'll keep the light away together . . . because that's why you turn me on each night: not to pass the night but to put off the day . . . this is your host Victor Ackon. . . ."⁶⁵

At the end of each story, Victor Ackon the radio host also signs off as, variously, Vettor Concher, Veda Conti, Vextor Coon, Vater Accons, Vita Conchy, Verter Cone, Voto Acco, Vic Accone, Virt Kincher, Vitter Ack, and Vic Acone. Acconci's identity is not only split among three rooms, but within each room it is splintered into even smaller fragments, multiplying into so many different identities that he appears to disappear. The viewer's search for the "real" Vito Acconci reveals "a language-world in which the self can reconnoiter its terrain only poorly: it meanders, lost, through space, searching for a stable domain, aiming to secure a place, to find a meaning. . . . No clear category or identity can maintain the self."⁶⁶

The search for a stable domain runs through all the works brought together in this exhibition. There is no clear center within which the locus of meaning can rest. Walter Benjamin articulated this loss of center when it was wrought by the impact of the duplication of the image in photography and film. He observed that film "bursts open the restriction of being in one place and time, and thereby extends our perception of life, space and time."⁶⁷ Duchamp's experiments with the fourth dimension attempted to harness the sense of unease about this separation between the recorded image and its origin. The conceptual works of William



LEFT: Vito Acconci. *Learning Sessions (II): Activity for Photos*, 1970. Collage of vintage chromogenic color prints and text mounted on board, framed: 49 x 42 5/8 x 2 in. (124.5 x 108.3 x 5.1 cm). The Wadsworth Atheneum, Hartford, Connecticut; The Douglas Tracy Smith and Dorothy Potter Smith Fund. As Acconci practiced a t'ai chi movement, he recorded each attempt in photographs and notes, documenting the body's learning process through a grid of images and text.

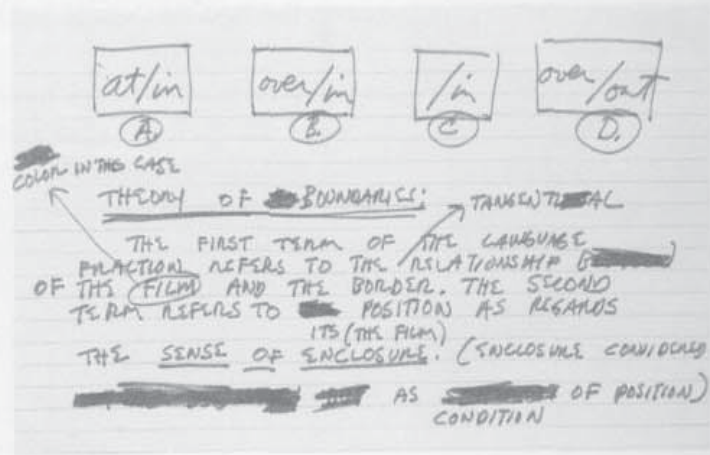
OPPOSITE: Mel Bochner. *Theory of Boundaries*, 1969. Ink on paper, 5 x 8 in. (12.7 x 20.3 cm)

Anastasi, made in the late 1960s and influenced by Duchamp's interrogation of the nature of perception, make visible this separation by placing the original and its recording side by side.

In Anastasi's *Free Will* (1968), a video monitor placed on the floor in a corner of the gallery presents a live image of the corner, as it is framed by the lens of a black-and-white video camera placed on top of the monitor. This tautological statement simultaneously asserts the instant feedback properties of the newly emergent medium of video and denies video's other major characteristic: movement. The stasis of the potentially moving image creates a tension resulting from the unconscious anticipation of the viewer, who expects the image to move. The frustrated viewer shifts around the monitor in an attempt to animate it, as well as to confirm that the image is live, rather than a recording of the same space at a different time, which its stasis suggests. *Free Will* operates in direct opposition to Morris' *Finch College Project*, whose repetition occurs in the continual revolving of a film image around the space and whose continuous motion refuses the viewer a stable view of either the walls of the gallery or their images, filmed and projected back into the space.

The ambiguity between movement and stasis in *Free Will* is reinforced by the fact that the video image is in black-and-white, creating a clear distance from the full-color reality of the corner in real space and evoking the stillness and other time of photography. Despite this implied stasis, the viewer's presence does succeed in changing the image by revealing different aspects of the videotaped corner, which follow the angle of the moving body in relation to the screen. This also allows the monitor's physical shape to be experienced, as the viewer moves away from the frontal image of the corner and perceives the monitor's three-dimensional mass. The experience of a transformation of a space to a flat image in real time is replaced by a recognition of the image-generator as a solid object sitting inside that very space.

Anastasi's tautology is thus rendered undeniably material. It can also, paradoxically, be understood as an implicit critique of the institution of the museum and gallery, as well as of conventions of art presentation, in its rejection of the open space of the wall and conventional viewing height. The corner, and the floor, were important democratic locations in space for artists such as Dan Flavin, Carl Andre, and Bruce Nauman. Their use of neglected locations rejected traditional hierarchies of value (such as the pedestal and the frame) in favor of a more open-ended definition of meaning, for which, following Donald Judd's maxim, interest, rather than quality, became the benchmark. Anastasi's replication of a corner through a real-time image lends it the similar characteristics of both a void and an object.



By contrast, in Anastasi's *Microphone* (1963), an earlier conceptual work, the interface between real and replicate is more immaterially located. A reel-to-reel tape recorder plays back a recording of the machine's own recording mechanism, with the recorded and real sound set at the same volume. The almost intangible interval articulated by the space between the real and the recorded sound evokes the definition of temporality articulated by Duchamp's concept of "infra-thin" time, which he associated with transparency and interval, and whose immateriality he described as being like the warmth of a seat just after someone has left it.

The subtlety of this interface between one moment and another recalls both the wafer-thin screen of Snow's *Two Sides to Every Story* and Mel Bochner's slide work

Theory of Boundaries (1969), in which three slides project a thin layer of light onto the equally thin surface of a wall. Each rectangle of light shows parts of a statement that reads, in white capital letters photographed on a black wall, "Theory of Boundaries." In the intervals between the three slide projections, Bochner painted, on the white wall in black letters, the letters that appeared on the black wall represented by the slides. The resulting layering of real and projected surface, along with the theory implied, but not explicated, in the sentence, invites the viewer to consider the visual and textural boundary between the gallery wall and the wall documented on the slide. The projection of a slide image of one wall onto the surface of another forms a kind of interruption of the actual wall, heightening our awareness of it as surface. It also brings a representation of one space into the reality of another, making visible the fact that reality (actuality) lies in the relationship between what we observe and what we know.

This dichotomy was also demonstrated by Michael Heizer in a large negative sculpture titled *Munich Depression* (1969), made in Neue Perlich, Munich, and an accompanying projection work, *Actual Size: Munich Rotary* (1970), in which the large void of the sculpture's interior was photographed, and the black-and-white images of the interior projected into the gallery space, actual size. Both works deal with the viewer's optical experience of a large, enclosed negative space, and the horizon line, in phenomenological terms. When the viewer stood at the bottom of the depression, only the sides and skyline were visible, creating a stark horizon line. In their oval-shaped structures, both works evoke in us a strong sense of our physical center, as well as the spherical shape of our eye, whose dimensions directly correspond to the area of sky framed by the depression's perimeter. Both *Munich Depression* and *Actual Size: Munich Rotary* thus become not only art works, but devices for measuring opticality. The tension between void (real space) and surface (the immateriality of the projections on the wall) suggests that "actual size" is, after all, relative. Our perception locates the actual size as existing in both, and therefore somewhere between the two. As George Kubler noted:

Actuality is when the lighthouse is dark between flashes; it is the instant between the ticks of the watch: it is a void interval tipping forever time: the rupture between past and future: the gap at the poles of the revolving magnetic field, infinitesimally small but ultimately real. It is the inter-chronic pause when nothing is happening. It is the void between events. Yet the instant of actuality is all we can ever know directly. The rest of time emerges only in signals.⁶⁸

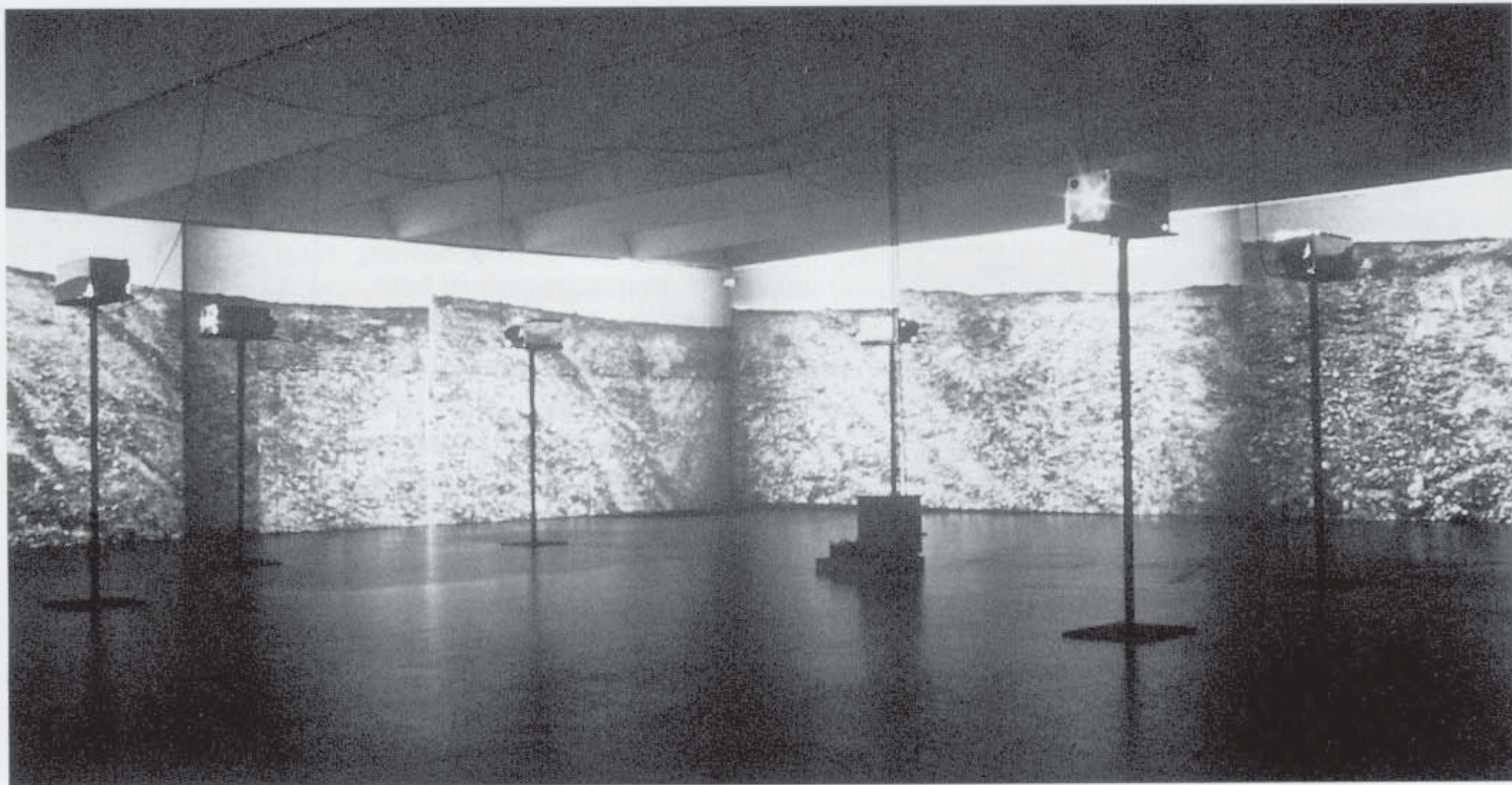
The rupturing of the gallery's boundary, either literally or conceptually, lay at the heart of the process-based practice of Postminimalist artmaking. Video was a part of this challenge to what were felt to be the confines of the gallery space, a confinement demonstrated through increasingly temporal interventions. The arrival of video as a medium capable of relaying events at the same moment that they took place changed the experience of time forever. Suddenly there was *parallel* time. Not the "double" time of past and future suggested by Pamela M. Lee; nor the conflated time in which episodes from a narrative were pictured together in a single image, as in painting from ancient Egypt onward; but a simultaneity of a present and an *electronically mediated* present. The profound impact of this electronic simultaneity was famously anticipated by Marshall McLuhan, in his predic-

Michael Heizer. *Actual Size: Munich Rotary*, 1970. Six black-and-white photographic projections. Installation at the Kröller-Müller Museum, Otterlo, The Netherlands, 1979. Whitney Museum of American Art, New York; Gift of Virginia Dwan 96.137a-jj

tion of a collapsing of boundaries and the emergence of a “global village.”⁶⁹

In artmaking, the perceptual properties of this new model of time were taken up at an early stage by Nam June Paik and Yoko Ono. In 1966, Yoko Ono exhibited *Sky TV* at the Indica Gallery in London. A video camera was placed outside the building, relaying a continuous live image of the sky onto a television set inside the gallery. The work also existed as a written instruction, or score. Ono’s seemingly simple statement predicted the rupture of the gallery as a self-contained entity and expressed temporality, the everyday, and the nonartistic—all values that Duchamp had asserted nearly fifty years before and that modernism could be seen as having merely interrupted. *Sky TV* also echoed Duchamp’s concern with transparency. Ono had rendered the interface between the gallery and the outside world transparent by transmitting the image of one space directly into the other in real time. This spatial simultaneity had already been expressed in static terms in her *Painting to See the Evening Light Through* (1961), in which a plexiglass rectangle was hung in front of a window, shifting the location of meaning from the opaque surface of a canvas to the relationship between a transparent plane and the outside world beyond it.⁷⁰

Ono’s substitution of the familiar imagery of television with an image of the everyday world conducive to contemplation undermined both the authority of



broadcast television and the integrity of the self-contained object. *Sky TV* takes further the rupture of the pictorial surface demonstrated in Nam June Paik’s *Magnet TV* (1965), in which the autonomy of a quotidian object—a television set—is compromised by a household element—a large magnet placed on top of it. The visual disruptions caused by the magnet challenge the boundary of the object’s frame and suggest movement into a space beyond it—evoking the phenomenological spatiality of both Minimalism and, later, projective installations.

Sky TV also evokes the anxiety felt by observers of early Minimalism, who worried that Minimalism’s emphasis on temporality, the nonhierarchical, the use of

industrial materials, phenomenology, and nonauthorial fabrication was shifting art too much toward the everyday, the utilitarian, and the nonartistic. These were, of course, exactly the areas that Duchamp had already staked out and that the new medium of video was also seeking to occupy. Just as Paik's magnetically distorted abstraction rejects the conventional television image, the electronic light and blank surface of Dan Flavin's *ICON IV (Ireland Dying, to Louis Sullivan)* (1962–63) rejects the painterly (iconic) image and, in more general terms, painting itself. Flavin described his icons as “dumb . . . anonymous and inglorious . . . mute and indistinguished”—all Duchampian terms that could be applied equally to the television set and to Anastasi's gallery corner, Nauman's spinning ball bearings, Oppenheim's slapping hand, and Ono's sky.

Ono's conceptual rupturing of the membrane separating the gallery from the outside world took concrete form in Gary Hill's *Hole in the Wall* (1974). Using a video camera, Hill framed part of the surface of an outside wall to the same size as a monitor and recorded himself as he cut into its various layers, until he eventually broke through to the other side. The videotape of the process, cutting through layer upon layer of wallboard, fiberglass, and aluminum paper, was replayed as a loop on a monitor placed in the hole he had created, to exactly the same scale.

Hill's dramatic statement about the gallery space asserts what were to become two key strands of his work: the body and the image as performative tools and the construction and reading of the image as a mental concept. Whereas Oppenheim slaps the wall repeatedly in an atemporal cycle of both frustration and topographical marking, Hill cuts through it in a single performative action. Oppenheim is interested in space, but Hill is interested in what George Quasha and Charles Stein have called liminality: the threshold between one space or moment and another.⁷¹ Hill's cut through the wall (which he likens to Gordon Matta-Clark's architectural cutting actions) identifies that threshold at the same time as it crosses it.



Nam June Paik. *Magnet TV*, 1965. 17-inch black-and-white television set with magnet, 28 $\frac{3}{8}$ x 19 $\frac{1}{4}$ x 24 $\frac{1}{2}$ in. (72.1 x 48.9 x 62.2 cm) overall. Whitney Museum of American Art, New York; Purchase, with funds from Dieter Rosenkranz 86.60a–b

Hill's projection of a recording of an action onto the site in which it took place creates what he has termed a “video memory.”⁷² This memory makes visible the process by which the hole was made, much as Snow exposes the process of the film's making in *Two Sides to Every Story*. In *Hole in the Wall*, the size of the cutting area, and therefore the final hole, was determined by the size of the monitor screen and the camera frame. The document of the making of the hole, occupying the exactly measured space of the hole itself, becomes part of the hole, and, therefore, an object, both physically and perceptually. This performative object evokes Morris' *Untitled (Standing Box)* and *Box with the Sound of Its Own Making* (both

1961) as well as the characteristics of 1960s sculpture they epitomized—including theatricality, temporality, and the insertion of the object directly into the gestalt of the viewing space. The principle of feedback, central to video, and to Hill's work in particular, has its roots in these profound shifts that took place in sculpture during this period, made strongly evident in the work of Morris and others.

In *Box with the Sound of Its Own Making*, Morris inserted into a 9-inch-square wooden box a three-hour audiotape of the sound of its construction. The entire three-hour tape constituted the "length" of the sculpture, endowing it with a measurable temporal duration as well as a physical form. Hill's *Hole in the Wall* parallels Morris' box in its fusion of material form with the temporal recording of its making. Like Ono, Hill brings one space into another—not through simultaneous transmission, but through the uniting of memory and real time.

The opening out of the parameters of the enclosed sculptural object that had led to the inclusion of a performer, or viewer, within the space of the work was articulated in literal terms by Keith Sonnier in his fluorescent and neon light and video environments. Video projection appeared in Sonnier's work in the early 1970s as a direct development of his use of large mirrors as a performative element in a series of sculptural environments and performances. In *Channel Mix* (1972), the mirrors were replaced by a live image of the viewer in the gallery space, mixed in real time with television broadcasts and projected in two large, split images on opposite walls of the gallery and colored with a diffused overall hue. As Robert Pincus-Witten observed, the two projected television images become a conceptual element within a luminous ambient space, in which "the opposed exhalations of constantly shifting lights and shadows" create a binary rhythm, moving back and forth and negating a sense of narrative, or forward movement.⁷³ Just as Ono obliterates television space, Sonnier brings it into the gallery, critiquing it not by refusing it, but by making visible its manufactured structure and incorporating it into a painterly ambient space.

In extending his use of light as matter to incorporate projected televisual imagery, Sonnier was not so much, as Bruce Kurtz suggests, extending painterly values to video, as he was defining the particular surface, space, and color of video as a medium.⁷⁴ In *Channel Mix*, viewers do not confront their individual images existentially, as the elusive shadow emerging from the darkness in Peter Campus' *aen*, but as everyday reflections that take their place within the flow of daytime television programming and become almost indistinguishable from it. Sonnier's fusion of the viewer with the viewed in real time demonstrates the essence of the video medium: the sense of a perpetual present created by the viewer's awareness of his or her body entering a "field" of continual feedback. This level of involvement in the electronic image is made possible, McLuhan argued, because of television's (and, by implication, video's) tactile power.⁷⁵ McLuhan famously suggested that television is an extension of touch rather than of sight alone, because of its low definition, which produces a diffused electronic mosaic of horizontal lines and dots that the viewer's eye completes. This intense involvement with the screen results in a kind of osmosis of viewing. In Sonnier's cinematic color field video projection, this involvement is given a performative context. The viewer's assumption of the role of performer situates the work somewhere between the live space of performance and a hybrid space in which the phenomenological ambient field of Color Field painting is fused with the vibrancy of the luminous, saturated electronic surface of video.

If Sonnier imbued painterly values with temporality, Robert Whitman used temporality as a material in another kind of performative context. Whitman introduced temporality into the gallery space most notably in iconic Happenings such as *American Moon* (1960), in which six film projection loops animated the performance space, and the 1965 performance *Prune Flat*. In the performances and Happenings of the early 1960s pioneered by Whitman, Allan Kaprow, Claes Oldenburg, Robert Rauschenberg, John Cage, and Carolee Schneemann among others, film and slides became important elements. The spatial and temporal juxtapositions of later Postminimalist moving image installations were already present in these early insertions of filmed narrative alongside live action.

Anthony McCall cites Rauschenberg's composite painting *Pilgrim* (1960), in which a chair is physically attached to the surface of a canvas, as an important influence on his own understanding of, and engagement with, temporality and space. Rauschenberg's intervention ruptured the illusionist surface of the picture plane, asserting real time and space over the viewer's desire to become absorbed in the painted image. Whitman, a close friend of Rauschenberg, made a similar juxtaposition of flat space and three-dimensional reality. His use of film as a material for temporal and spatial experimentation was explored in both performance and in a series of sculptural environments made in 1963–64. In perhaps his best-known cinema environment, *Shower* (1964), a film loop of a woman showering is projected onto the curtain of a real shower stall as water cascades from the faucet behind. The piece was first shown as part of a performance by Whitman in the landmark event "9 Evenings: Theatre and Engineering" at the Sixty-Ninth Regiment Armory in New York, organized by Rauschenberg and Billy Klüver for E.A.T. in 1966. The event, which featured nightly performances by Rauschenberg, Whitman, Yvonne Rainer, John Cage, Öyvind Fahlström, Steve Paxton, Deborah Hay, David Tudor, Lucinda Childs, and Alex Hay, involved the collaboration of Bell Lab engineers, scientists, and technicians in a radical experiment on an unprecedented scale.

Shower evokes both the cinematic drama of Alfred Hitchcock's thriller *Psycho* and the sculptural statement of Rauschenberg's chair in reverse. Illusionistic imagery is projected onto a physical object, creating a fusion of cinema and sculpture. Unlike Hill's *Hole in the Wall*, in which site and action are conceptually and temporally linked, *Shower* re-presents, on film, an act that took place in another time and place, uniting it within a separate physical representation of its filmed site in order to complete an image. Like Morris' *Untitled (Standing Box)* and *Box with the Sound of Its Own Making*, Whitman's juxtaposition of temporal activity with static three-dimensionality uses the performative to undermine the concept of a self-contained object.

Whitman's technological experimentation, and his fusion of a sculptural language with film, reflected a widespread interest in harnessing technology for creative ends during the 1960s.⁷⁶ During this period, there was a strong need to distinguish the mechanization and standardization that had penetrated artmaking from that of mass industrial production.⁷⁷ This contradiction between individual artistic statement and industrial labor is consistently demonstrated in the work of Andy Warhol, and his pastiche of industrial production, the *Factory*. Warhol's use of repetition and seriality in his films similarly critiques the Hollywood studio system by mimicking its factory production methods. Hal Foster argues that the blankness of Warhol's seriality is not merely part of the industrial model, but also represents the reaction of a "shocked subject," for whom repetition functions as a defense against

the traumatic subject matter he depicts (the tragic figure of Marilyn Monroe, car accidents, suicide, the electric chair). This argument is clearly demonstrated in Warhol's double-screen film *Lupe* (1965), a satire on the studio system, in which Edie Sedgwick acts out the final hours of the Hollywood star Lupe Velez, who committed suicide in 1944.⁷⁸

Warhol's interest in tragedy and the melancholic, Foster suggests, not only reproduces the traumatic, but also *produces* it. This is illustrated in *Lupe*, which appears to be a premonition of Sedgwick's decline as well as a reprise of Velez's. Sedgwick is filmed waking up, putting on makeup, and walking languidly around in the apartment where the film was shot. The drama occurs in her gradual decline into a drink- and drug-induced stupor—unable to lift her head from the table, she finally collapses in the bathroom with her head in the toilet.

The duality of Warhol's dramatization of a true Hollywood story and its parody in Edie's own fragile state is underscored by the split screen. Warhol divides the narrative across the two screens at the moment that Sedgwick begins to spiral downward. The left screen shows Sedgwick in a pink baby-doll nightdress. Preparing for her glamorous suicidal moment, she has her hair cut by Billy Name and applies heavy eye makeup in front of the large mirror by her daybed. The left screen is further split by the large mirror, through which we see Sedgwick doubled for most of the film, except for certain moments when the camera zooms in to her face in the mirror or up to architectural details of the room.

On the right screen, Sedgwick drifts backward and forward between the table and the mantelpiece in a diaphanous blue gown. Her mood is one of languid distraction, as she pours herself glasses of wine and toys with a plate of food. The deterioration of Sedgwick's mental and physical state is registered by sudden wild movements of the camera, which sweeps up and down, out of focus, as her head droops, cigarette hanging from her hand. This pattern is repeated until she walks away, leaving an empty chair. The camera cuts to an identical shot of the bathroom scene, zooming in and out, and filming Sedgwick's slumped body through the mirror.

In Warhol's multiple portrait, splitting is expressed through the screen, the narrative, and the subject. The boundary between Sedgwick as herself, as Warhol superstar, and as Lupe Velez is unclear, since the reality of her own identity is simultaneously asserted and submerged. The mirroring, doubling, and breaking down of the single cinematic viewpoint in so many later moving image installations is already evident in Warhol's juxtaposition of two halves of the same narrative side by side, fractured further by the reflections of the large mirror. The mirrored reflections of Sedgwick also recall the quadruple portrait of *Outer and Inner Space*, made earlier the same year, in which Warhol filmed the superstar sitting next to her recorded image playing on a television set projected in double screen.

If Warhol's dismantling of linear cinematic time and the illusion of dramatic narrative anticipates Snow's *Two Sides to Every Story*, his prescient use of video in *Outer and Inner Space* predicts the temporal simultaneity of live feedback. In both films, Warhol's use of video feedback and mirror reflection to express psychological tension and the fracturing of the self engages repetition "to screen the real understood as traumatic."⁷⁹ Warhol's use of repetition is not, therefore, as in Minimalism, a repression of representation and subjectivity, but a means of exposing it. The existentialism of his fractured identities and psychological portraits would reemerge later, articulated spatially in installation works such as Acconci's *Other Voices for a Second Sight*, in which Warhol's traumatic subject is turned

inward, expressing the fragmentation of the artist himself.

The tension between objectivity and subjectivity evident in Warhol's films is the point around which much of the work of the 1960s and early 1970s pivots. As Sol LeWitt stated in his "Sentences on Conceptual Art" (1969): "Irrational thoughts should be followed logically and absolutely."⁸⁰ The work of Samuel Beckett, ruled by systems and repetition, yet deeply irrational, epitomizes the paradox surrounding the impurity of this work. This paradox expresses itself most clearly in temporality, the driving force of this period. The experience of temporality in art across all media occurred as a direct result of the restructuring of perception that took place during the mid-1960s. As Robert Morris argued in his text "Notes on Sculpture, Part IV," published in *Artforum* in 1969, a shift was occurring in perception, toward a more inclusive viewing experience, in which the viewer no longer focused on a gestalt reading of an object in perspective within an otherwise unimportant space. Instead, that space was included in a kind of environmental viewing: "a mode of vision [variously termed as] scanning, syncretistic or dedifferentiated. . . . This perceptual mode seeks significant clues out of which wholeness is sensed, rather than perceived as an image."⁸¹

As Morris observed, the new perceptual mode became incorporated as a structural feature of the art work itself. This was particularly true of projective installations, for which the orientation of the viewer in space was central to the reading

of the work. Many projective installations made during this period evoked a response similar to Rainer's description of her experience of viewing an abstract sculpture by Morris in 1967: "It looks the same from every aspect. You know you won't see anything different if you go to the other side, but you go to the other side. You know immediately what you are seeing, but you don't quite believe that another vantage point won't give you a more complete, more definitive, or even altered, view of it. It doesn't."⁸²

Whether the multiple images of projective installations are identical or not, the viewer's attention is always directed upward and outward, to the walls of the space. This viewing mode is a direct reversal of our inward focus on an object, however phenomenological, *in* space. In most projective installations, the viewer does not share the space of the gallery

with the art work, but is enclosed by it. In this sense, projective installations differ from the other genres of art during this period. As Morris argues, a large object or projection makes more demands on viewers, who must stand at a greater distance to perceive it, and involve their bodies more fully in it. This architectonic aspect is underscored by the repetition of screens across the walls of the gallery space, which corresponds directly to the serial rectangular block, the paradigmatic unit of 1960s sculpture.

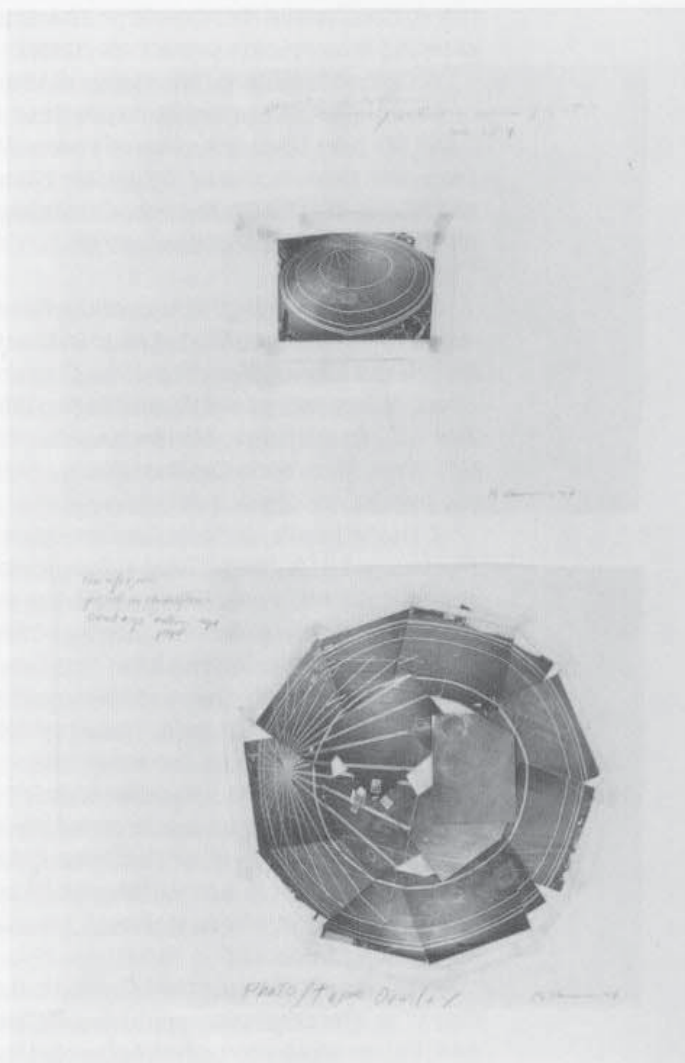
The use of the rectangular unit as extension is found in the projections of Anastasi, Graham, Korot, Lucier, Nauman, Oppenheim, Sharits, Sonnier, and Warhol.

LEFT: Horace-Bénédict de Saussure. *Vue circulaire des montagnes qu'on découvre du sommet du glacier de Buét*, 1780. Graphite on paper, sheet 10 1/4 x 7 7/8 in. (26 x 20 cm). Zentralbibliothek, Zurich. The all-surrounding perceptual viewing experience described by Robert Morris in his "Notes on Sculpture, Part IV" (1969) evokes the panoramic environments that appeared in Europe in the seventeenth century, during a similar period of technological and social revolution. This early drawing of a panorama of mountains in Switzerland indicates a parallel desire to portray the entire space of the circular environment, beyond the body's ocular limits, and the didactic process of measuring and recording the natural world.

OPPOSITE: Bruce Nauman. *Untitled*, 1974. Photographs, tape, paper, cardboard, and text, 37 x 24 13/16 in. (93.9 x 63 cm) overall. Staatsgalerie Stuttgart. This work is a template for *Cones Cajones* (1973-75), an installation shown at the Leo Castelli Gallery, New York, in 1975, in which concentric rings of masking tape on the floor of the gallery suggested a cross-section of large cones beginning at the center of the earth and stretching up to the sky. Viewers were to position themselves in the middle of the space, centered in the cones, or *cajones* (a vulgar term in Spanish meaning "testicles"). Nauman asks viewers to imagine the space underneath their feet and the ground below as a vast volumetric negative form, within whose center they should align their own.



Repetition occurs as a device through which both temporal and spatial presence is asserted. Yet in each case, temporality is used to render spatial presence elusive. In Lucier's *Room*, it disappears into abstraction; in Morris' *Finch College Project* it is glimpsed moving perpetually across the walls; in Nauman's *Spinning Spheres*, it is spun out of recognition; in Graham's *Helix/Spiral*, it swings in and out of the horizon line. This destabilizing of space disrupts the picture plane through temporality, not so much destroying illusionism as redefining its limits. As the works in this exhibition demonstrate, these limits are understood through the body, within which the mechanics of vision are lodged. The projective installation thus continues the mission of Duchamp's *Large Glass*: to make visible a model of consciousness in which, as George Quasha and Charles Stein have observed, we recognize that we exist within a continuous projection of our own "event."⁸³



Notes

1. Roland Barthes, "Upon Leaving the Movie Theater," in Theresa Hak Kyung Cha, ed., *The Cinematographic Apparatus: Selected Writings* (New York: Tanam Press, 1980), p. 1.
2. Similar concerns were shared by the Brazilian artist Hélio Oiticica, particularly in his slide installations collectively titled *Quasi-Cinemas* (1970), made when he lived in New York.
3. Jean Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," in Hak Kyung Cha, *The Cinematographic Apparatus*, pp. 27–28, describing the Greek model of space, circular and democratic in character, allowing many viewpoints for spectators.
4. Catherine Wilson, "Discourses of Vision in Seventeenth-Century Metaphysics," in David Michael Levin, ed., *Sites of Vision: The Discursive Construction of Sight in the History of Philosophy* (1997; 2nd ed., Cambridge, Massachusetts: The MIT Press, 1999), p. 133.
5. *Ibid.*, p. 117.
6. Thierry de Duve, "Echoes of the Ready-made: Critique of Pure Modernism," in Martha Buskirk and Mignon Nixon, eds., *The Duchamp Effect: Essays, Interviews, Round Table* (1996; 2nd ed., Cambridge, Massachusetts: The MIT Press; New York: October Books, 1999), pp. 109–10.
7. David Joselit, *Infinite Regress, Marcel Duchamp 1910–1941* (Cambridge, Massachusetts: The MIT Press, 1988), p. 173. See also Peter Campus' single-screen videotape *Three Transitions* (1973), in which he cuts into a paper wall superimposed onto an image of his back and climbs through it (and himself), only to emerge intact on the other side.
8. *Ibid.*, p. 156. As Duchamp articulated in a note, "Reflection from a mirror—or glass—/flat/convex—infra-thin separation—better/than screen, because it indicates/interval (taken in one sense) and/screen (taken in another sense)—separation. . . ."
9. Rosalind E. Krauss, "Notes on the Index, Part 1," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Massachusetts: The MIT Press, 1985), pp. 196–209. Hal Foster critiques Krauss' argument in *The Return of the Real: The Avant-Garde at the End of the Century* (Cambridge, Massachusetts: The MIT Press, 1996), pp. 80–86.
10. Jane Livingston and Marcia Tucker, *Bruce Nauman: Work from 1965 to 1972*, exh. cat. (Los Angeles: Los Angeles County Museum of Art; New York: Whitney Museum of American Art, 1972), p. 24.
11. Marcel Duchamp, *Salt Seller: The Writings of Marcel Duchamp (Marchand du Sel)*, Michel Sanouillet and Almer Peterson, eds., quoted by Craig Adcock in "Duchamp's Way: Twisting Our Memory of the Past 'For the Fun of It,'" in Thierry de Duve, ed., *The Definitively Unfinished Marcel Duchamp* (1991; rev. ed., Cambridge, Massachusetts: The MIT Press, 1993), p. 326.
12. Bruce Nauman, "Notes and Projects," *Artforum*, 9 (December 1970), p. 44.
13. Gijs van Tuyl, "Human Condition/Human Body," in *Bruce Nauman*, exh. cat. (London: Hayward Gallery, 1998), p. 69.
14. Annette Michelson, "Anemic Cinema: Reflections on an Emblematic Work," *Artforum*, 12 (October 1973), pp. 64–69.
15. See Maurice Berger, "Duchamp and I," *Labyrinths: Robert Morris, Minimalism, and the 1960s* (New York: Harper and Row, 1989), pp. 38–40. See also Warren Neidich, "Marcel Duchamp and His Optical Machines," unpublished lecture, School of Visual Arts, New York, 1994.
16. Buskirk and Nixon, *The Duchamp Effect*, p. 48.
17. The tasklike movements of *Finch College Project* also recall Morris' dance performances, in particular *Site* (1965), which, like *Finch College Project*, involved the systematic removal of panels. The removal of the last plywood panel in *Site* revealed Carolee Schneemann, reclining nude on a chaise longue in a pastiche of Édouard Manet's painting *Olympia*, suggesting a similar deconstruction of painterly illusionism.
18. In *Mirror* (1969), Morris holds up a large mirror as he walks in a large circle around a snowy landscape. The panoramic sweep of the mirror is recorded by the camera in a juxtaposition of reflected and real filmed space. In the second part of the film, Morris stops turning and walks backward, away from the camera, until the mirrored image becomes less of a frame within the film frame and more of a pictorial abstraction of the reflected landscape. Prints of the film are in the collections of the Whitney Museum of American Art and the Tate Gallery, London.
19. Hubert Damisch, *The Origin of Perspective* (1987; rev. ed., Cambridge, Massachusetts: The MIT Press, 1994), chap. 8, "The View," pp. 130–31.
20. The performers in different versions of *Helix/Spiral* have included Graham, Simone Forti, Ian Murray, and Duane Lundon.
21. Maurice Merleau-Ponty, *The Phenomenology of Perception*, quoted in Pamela M. Lee, *Object to Be Destroyed: The Work of Gordon Matta-Clark* (Cambridge, Massachusetts:

The MIT Press, 2000), chap. 3, "On Matta-Clark's 'Violence'; Or, What Is a 'Phenomenology of the Sublime?'" p. 133.

22. Herbert Molderings, "Objects of Modern Skepticism," in de Duve, *The Definitively Unfinished Marcel Duchamp*, p. 253.

23. For a comprehensive discussion of the shadow and projection in the history of art and culture, including Plato's classic simile of the cave in *The Republic*, see Victor Stoichita, *A Short History of the Shadow* (London: Reaktion Books, 1997).

24. Douglas E. Tyler, "Holography, Some Observations," in *International Exhibition of Creative Holography*, exh. cat. (Notre Dame, Indiana: St. Mary's College, 1983), p. 3.

25. *Ibid.*, p. 9.

26. Albert A. Hopkins, ed., *Magic: Stage Illusions, Special Effects, and Trick Photography* (New York: Dover Publications, 1976), pp. 211–12.

27. Robert Pincus-Witten, "Peter Campus: Inference and Actuality," in *Projected Images*, exh. cat. (Minneapolis: Walker Art Center, 1974), p. 12.

28. Stoichita, *A Short History of the Shadow*, pp. 11–20.

29. Peter Campus, "sev," in *Peter Campus*, exh. cat. (Cologne: Kölnischer Kunstverein, 1979), p. 28.

30. Anthony McCall, interview with the author, New York, December 2000. A print of the film is in the collection of the Whitney Museum of American Art.

31. The much-touted purity of form in *Wavelength* emerged from erroneous written descriptions, perpetuated by those who have not seen it. The film is not a single zoom, but edited from several different shots.

32. Rosalind Krauss, "Paul Sharits," *Film Culture*, 65–66 (1978), p. 95.

33. Barthes, "Upon Leaving the Movie Theater," p. 2.

34. Lewis Carroll, *Alice Through the Looking Glass*, quoted by Paul Sharits, "-UR(i)N(u)L-S:TREAM:S:S:ECTION:S:SECTION:S:S:ECTIONED-(A)(lysis)O:'1968-70,'" *Film Culture*, 65–66 (1978), p. 7.

35. The viewer's involvement in *Line Describing a Cone* reflects McCall's interest in participating within an established structure or score. McCall's concern with participation was expressed in his earliest works, open-air group performances. He remembers being struck by the interactiveness of *HPSCHD* by John Cage and Hans Namuth, a sound performance he saw performed at the Roundhouse, London, in 1971. Walking round a circular space containing seven harpsi-

chords, spectators mixed the sound according to their individual positions within the work. McCall conceived of *Line Describing a Cone* on a ship halfway from England to New York and made it within three months of arriving in the city. He cites lighthouse beams as an influence, and among a portfolio of his drawings there is a copy of an old map of lighthouses across the British Isles. Interview with the author, New York, December 2000.

36. Gordon Matta-Clark cites *Line Describing a Cone* as the inspiration for his architectural intervention *Conical Intersect* in Paris (1975), in which a cone was cut out of the side of a building destined for demolition in Les Halles, revealing the various layers of the building within. Richard Serra saw and admired another important conceptual film by McCall, *Four Projected Movements* (1975).

37. Paul Sharits, "Words per Page," *Film Culture*, 65–66 (1978), p. 11.

38. *The Concise Oxford English Dictionary* (1911; rev. ed., Oxford: Oxford University Press, 1995), p. 710.

39. Krauss, "Paul Sharits," p. 92. In Sharits' installation we do not, in fact, see each individual film frame separately, since that would require slowing down the film projector. Instead, Sharits created a film in which each color is composed of between two and ten frames, each unit separated by a single black frame, which can then be read as a single frame at 24 frames per second. Sharits wrote a three-page unpublished letter to Stuart Liebman outlining the central role played by the black frame in the construction and meaning of *Shutter Interface*.

40. Stuart Liebman, "Apparent Motion and Film Structure: Paul Sharits' Shutter Interface," *Millennium Film Journal*, 1 (Spring–Summer 1978), p. 107. Liebman's incisive article provides a detailed technical and theoretical discussion of *Shutter Interface*.

41. Paul Sharits, "Locational Film Pieces," *Film Culture*, 65–66 (1978), p. 124. *Shutter Interface* is directly related to *Epileptic Seizure Comparison* (1976), which presented a disturbing filmic and aural record of a patient in seizure, with the deliberate intention of inducing a similar state in the viewer.

42. *Ibid.*, p. 24.

43. Amy Taubin, "See Me Feel Me," *The Village Voice*, August 30, 1988.

44. Foster, *The Return of the Real*, p. 63.

45. Alvin Lucier, "I Am Sitting in a Room (1969) (score)," in Melinda Barlow, ed., *Mary Lucier: Art and Performance* (Baltimore: The Johns Hopkins University Press, 2000), p. 67.

46. The Polaroid was copied fifty-one times

on a Polaroid copying machine.

47. Barlow, *Mary Lucier*, pp. 4–5.

48. The actions performed in relation to the film by Jonas and two other performers are only part of a series of actions too numerous to detail here. For a complete description and notation of the performance, see *Joan Jonas, Scripts and Descriptions 1968–1982*, exh. cat. (Berkeley: University Art Museum, University of California; Eindhoven: Stedelijk Van Abbemuseum, 1983), pp. 70–78.

49. The Maya Deren screening at Anthology Film Archives that Jonas cites as the inspiration for the ephemeral blackboard drawings in *Mirage* was a rare experience. The raw footage she saw was edited shortly afterward into a posthumous film, in which the repetitions of the raw footage of the sand drawings were lost. *Mirage* was also influenced by Jonas' first visit to India, and by the Melukean Book of the Dead, as she states in the Electronic Arts Intermix website text for *Mirage* (www.eai.org). For Jonas, *Mirage* marked a shift away from her concern with feminine identity to a larger theme of transformation, seen in her account of the New Guinea rite, in which she implicitly casts herself as the "devouring witch."

50. In contrast to the videotape *Vertical Roll* (1972), in which Jonas performed live in relation to the movement of the vertical hold, in *Mirage* her actions bear no direct relationship to the hold.

51. Pamela M. Lee, "Some Kinds of Duration: The Temporality of Drawing as Process Art," in *Afterimage: Drawing Through Process*, exh. cat. (Los Angeles: The Museum of Contemporary Art, 1999), pp. 25–48, esp. p. 32.

52. Joseph Beuys presented elements from the performance *I Like America and America Likes Me* (1974) as an installation at the Ronald Feldman Gallery, New York, in 1979, adding further elements that he felt communicated the performance's symbolic meaning. For the exhibition "Out of Actions: Between Performance and the Object, 1949–1979," at The Museum of Contemporary Art, Los Angeles, in 1997, Marina Abramović reconstructed the table of objects she had originally provided for the audience in her performance *Rhythm O* (1974). Carolee Schneemann's performance *Up to and Including Her Limits* (1975) was re-presented as an installation consisting of the original drawings on paper and a film of her performing the work at its original location. See Miwon Kwon, "One Place After Another: Notes on Site-Specificity," *October*, no. 80 (Spring 1997), pp. 85–110.

53. *May Windows* and *Good Night, Good Morning* both document the passing of time in a conceptual structure that evokes the postcards of On Kawara. *May Windows* records the changing light on the window of Jonas' loft at different times of day, while *Good Night, Good Morning* records her greeting the camera at the beginning and end of each day over a period of time in New York and Nova Scotia.

54. See Kathy O'Dell, "Performance, Video, and Trouble in the Home," in Doug Hall and Sally Jo Fifer, eds., *Illuminating Video: An Essential Guide to Video Art* (New York: Aperture, 1985), pp. 135–51. Discussing the role played by the alternative space during this period, O'Dell argues that the contexts of these spaces, and of artists' lofts, differed from those of commercial galleries and museums and were more conducive to the work being made. "Gallery" is used here as a generic term.

55. For a fuller discussion of Barry Le Va's performance and the issue of process and the gallery space, see Carter Ratcliff, *Out of the Box: The Reinvention of Art 1965–1975* (New York: Allworth Press, 2000), pp. x–xi.

56. Thomas McEvilly, "The Rightness of Wrongness: Modernism and Its Alter-Ego in the Work of Dennis Oppenheim," in *Dennis Oppenheim*, exh. cat. (Long Island City, New York: The Institute for Contemporary Art, P.S. 1 Museum, 1992), p. 21.

57. Oppenheim, in conversation with the author, New York, December 1, 2000, commented that he felt he had not shed his feelings for the theoretical, which he had absorbed from Minimalism, and that Minimalism was an important influence on his early thinking. Many of the points made in this discussion of *Echo* are taken from a conversation in which Oppenheim discussed the ideas behind *Echo* at length. I am grateful to the artist for his generosity in sharing this information.

58. For a detailed discussion of the relationship between art and violence during the 1960s, see Maurice Berger, "Forms of Violence, Neo-Dada Performance," in *Neo-Dada, Redefining Art 1950–1962*, exh. cat. (New York: American Federation of Arts, 1994), pp. 67–83.

59. A notable exception includes Mary Lucier's *Polaroid Image Series #1*. In addition, Jonas' performance *Mirage* involved the reading out loud of fairy tales and short statements, and *Good Night, Good Morning* is a rare example of the use of language in her early videotapes; these tapes are almost all silent except for the ambient sounds of the

space in which they were recorded or abstract sounds such as the banging together of wooden blocks in *Vertical Roll*. Oppenheim made several monitor-based video installations that included spoken dialogue. Most of Nam June Paik's video installations involved a Fluxus-based use of experimental sound and sounds collaged from popular music and the media, but language was not a major element. Where language appears in video during this period, it is almost always in monitor-based works.

60. For a detailed discussion of Hill's work and the role of language in his videotapes and installations, see the important group of essays and writings by Hill in Robert C. Morgan, ed., *Gary Hill* (Baltimore: PAJ Books and The Johns Hopkins University Press, 2000).

61. Kate Linker, *Vito Acconci* (New York: Rizzoli, 1994), p. 64.

62. *Ibid.*, p. 52

63. Vito Acconci, unpublished notes from the proposal submitted to The Museum of Modern Art, New York, for the making of the installation, 1974.

64. Linker, *Vito Acconci*, p. 72.

65. Acconci, unpublished notes.

66. Linker, *Vito Acconci*, p. 72.

67. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in Robert S. Nelson and Richard Shiff, eds., *Critical Terms for Art History* (Chicago: University of Chicago Press, 1996), p. 331.

68. George Kubler, "The Shape of Time," in Pamela M. Lee, "Some Kinds of Duration," p. 35.

69. Marshall McLuhan's arguments are expounded in Eric McLuhan and Frank Szingrone, eds., *Essential McLuhan* (London: Routledge, 1997).

70. For a detailed discussion of Ono's works in various media, see *Yes: Yoko Ono* (New York: Japan Society, 2000), which includes a chapter by the present author on Ono's films and *Sky TV*. See also the author's catalogue text on Ono's work in *Have You Seen the Horizon Lately?* exh. cat. (Oxford: Museum of Modern Art, 1997), which discusses transparency and temporality in Ono's work.

71. George Quasha and Charles Stein, "Liminal Performance: Gary Hill in Dialogue," in Morgan, *Gary Hill*, p. 246.

72. *Ibid.*

73. Robert Pincus-Witten, "Keith Sonnier: Video and Film as Colorfield," *Artforum*, 10

(May 1972), pp. 35–37.

74. Bruce Kurtz, "Video Is Being Invented," *Arts Magazine*, 47 (December–January 1973), pp. 37–44.

75. Marshall McLuhan and Quentin Fiore, *The Medium Is the Massage: An Inventory of Effects* (London: Penguin Books, 1967), p. 125.

76. The interest in technology was epitomized in the "Art and Technology" project organized by Maurice Tuchman for the Los Angeles County Museum of Art. Tuchman commissioned projects using technology to be presented in the American Pavilion for Expo '70, Osaka, by a diverse group of artists, including Whitman, Rauschenberg, Morris, John Chamberlain, Robert Irwin, Oldenburg, Dan Flavin, and Andy Warhol. For Osaka, Warhol created an environmentally scaled work consisting of walls of large-scale printed flowers, which the spectator viewed through cascading sheets of water. Warhol's *Art and Technology* project evokes Whitman's shower piece, in which the image is projected through water.

77. See Foster, *The Return of the Real*, p. 66.

78. As Callie Angell explains, this is the second in a trilogy of Warhol films made in 1965–66 dealing with famous Hollywood scandals. The other two films are *More Milk Yvette* (1965), pastiching the life of Lana Turner, and *Hedy* (1966), inspired by the tragic life of Hedy Lamarr. Callie Angell, *The Films of Andy Warhol: Part II*, exh. cat. (New York: Whitney Museum of American Art, 1994), pp. 24–25.

79. Foster, *The Return of the Real*, p. 132. Foster's complex argument includes a Lacanian reading of repetition, trauma, and the real and develops this simple point much further.

80. Sol LeWitt, "Sentences on Conceptual Art," *Art-Language*, 1 (May 1969), pp. 11–13, reprinted in Gary Garrels, ed., *Sol LeWitt: A Retrospective*, exh. cat. (San Francisco: San Francisco Museum of Modern Art, 2000), p. 371.

81. Robert Morris, "Notes on Sculpture, Part IV," *Artforum*, 7 (April 1969), pp. 50–54, reprinted in Charles Harrison and Paul Wood, eds., *Art in Theory 1900–1990: An Anthology of Changing Ideas* (Oxford: Blackwell Publishers, 1992), pp. 868–73.

82. Yvonne Rainer, "Don't Give the Game Away," *Arts Magazine*, 41 (April 1967), p. 46.

83. Quasha and Stein, "Liminal Performance," p. 149.