"It is certain with me that the world exists anew every moment; that the existence of things every moment ceases and is every moment renewed."[1] Thus with this epigraph from Jonathan Edwards—a promise of renewal and therefore redemption—Michael Fried introduced one of the most important essays of art criticism of the 1960s, "Art and Objecthood." At first it seems a strange way to begin his canonical attack on minimalist sculpture. Those dumb, repetitive objects Fried would reject as "literalist" or "theatrical"—so obdurate in their industrial manufacture and yet so obsequious in their appeal to the spectator's lived experience—seem worlds apart from the temporal prescriptions of the eighteenth-century theologian.

But that contrast is just so. And by essay's end, Fried returned to that very point. The essay begins with a reference to Edwards and so too would it conclude with a theological pronouncement. Fried ended with a message as if delivered from the Very Judgment Seat of art: "We are all literalists most or all of our lives," he wrote, before bestowing the now infamous Edwardsian edict "Presentness is grace." The reader, then, has come to view the world anew. Come full circle to a temporal imperative about art. As Fried was to explain it over thirty years later, his initial reference to Edwards in "Art and Objecthood" was intended as "a gloss on the concept of presentness . . . as suggesting that what was at stake (in modernism) was something other than *mere* instantaneousness."[2] It was not just *mere*—modernism's sense of the instant—and only the moral authority of an Edwards could do justice to this condition. A more pressing battle was being waged in the service of modernism, one with its own chiliastic implications.

For just as "Art and Objecthood" is a championing of a medium-specific art, it is just as much a championing of presentness. And just as

it is an indictment of "theatricality," it is just as much a condemnation of duration, of time. Hence the intractability of time and medium for the critic; and there is no doubt that "Art and Objecthood" inscribes a marked anxiety about time. Time in the work of art; time in the experience of minimalism as quotidian; time experienced as the endless, "on and on" of a new kind of art making. Time as the foundation of what Fried called *theatricality:* the staging of minimalist sculpture as contiguous with the actual conditions of the beholder's surroundings. This is what interests me in "Art and Objecthood": the Edwardsian bookends that would uphold the virtues of modernist presentness against the debasements of temporality found in the gallery and elsewhere. Time not just as it is thematized in the conflict between modernism and minimalism, but time as it is inflected by, and inflects in turn, the larger arena of cultural production of the sixties. For in Fried's fear of time—his *chronophobia* even—lies an implicit concession to the weakening status of the "purely present" work of art. And this fear further suggests, unintentional as it may be, conditions of art making that intersect with the discourse of postwar technology.

Of course few essays on the art of 1960s have received as much attention or generated as much hostility as "Art and Objecthood," and there are few lines in the history of art as imminently quotable, as famous or infamous, as "presentness as grace."[3] To revisit Fried at this moment would seem to belabor the point, a calculated redundancy: how many times must we return to this canon text? Yet as many critics and historians have noted, such attention is deserved, for no text articulates the peculiar mechanics of minimalism's reception as brilliantly as its does, in spite of its antagonism toward the work in question. In acknowledging both the essay's centrality for postwar art, not to mention the importance of its critical reception within theories of postmodernism, my goal in this chapter is both simple and speculative in its address. My argument is roughly organized into two parts. First, I offer a close reading on the problem of time so critical to Fried's account. Submitting his text to its own temporal logic, I wend a few paths around modernist criticism in both art and film along the way. Hence we encounter interlocutors as diverse as Clement Greenberg and Robert Smithson, Stanley Cavell and Rosalind Krauss, all of whom weigh in on the problem of time and medium; and all of whom wrestle with the implications of that relationship for modernism.

Second and more expansively, there is the speculative dimension, in which I read Fried's obsession with time against the grain of other temporal phenomena within the larger culture of the sixties. Just as Fried's essay has been deployed to unmask the logic of postmodernism, however negatively, so too does it offer a counterexample for understanding a new model of time at work in the art of that moment.[4] Here questions around the discourses of emerging technologies assume priority. Without making claims to a direct or even symptomatic relationship between Fried and such discourses, I want to suggest that the time Fried condemns in literalist art can tell us something about the question of endlessness encountered in the natural and social sciences of the day. We will find that this time is explicit to the rhetoric of much art of the period as well, including minimalism. It is the time of the work of art now understood as a *system,* recursive and shuddering like an echo, the time of an expanding new media and the articulation of its logic within and by art.

What follows, then, might be characterized as a dialogue of sorts—at first glance an apparent confrontation—staged between two parties seemingly at war with one another. Provisionally, we could call this a dialogue between medium and new media. In my argument's unfolding, however, it becomes clear that the dialogue between art and technology in the 1960s—in this case, that between minimalism and technology—is not a matter of medium reduced to its material essence. Time comes in to mediate that dialogue; and that mediation takes on its own circular logic, its own recursive force.

MODERNISM AS CHRONOPHOBIA

None of this is to say that "Art and Objecthood" is a thinly veiled diatribe against video art or new forms of computer graphics or new media, loosely defined. Nor is it to propose some relationship between the text and technology that is iconographic or repressed. To make such claims would be to miss the point entirely of Fried's endeavor. Thirty years after the fact, "Art and Objecthood" may read as one of modernist sculpture's last stands, a fierce polemic against the plodding, in-your-face banality of minimalism. But to the extent that this perspective is one of hindsight (Fried argued that the situation of modernist sculpture

back then was not nearly as desperate as some suggest), we might reverse its temporal flow and argue for the *anticipatory* status of the essay.[5] In its defensiveness about the sculptural medium and its relationship to time, it anticipates, if phobically, the integration of media as a function *of* time.

Published in the June 1967 issue of *Artforum*—a special issue devoted to sculpture—Fried's text was one of a cluster of essays confronting the staggering array of new work of the mid-sixties that begged the category of sculpture itself: primary structures, yes, but also Oldenburg's deflated, even lugubrious "soft machines"; the dissolute funk of West Coast assemblage; Sol LeWitt's seemingly invisible conceits; Smithson's proposal for an airport terminal. Fitting, then, that a Larry Bell cube in Plexiglas graces the magazine's cover (figure 1.1), emblematic as it is of the contents held within.[6] In its blankness of form and liquid translucency, a thin veil of iridescence skimming its surface, it suggests a critical starting-from-scratch. This, then, is sculpture at its zero degree, sculpture as tabula rasa—awaiting new thoughts to be impressed upon it. And inside the magazine's covers, many critics and artists would projects such thoughts—and with a vengeance.

That vengeance had to do with rethinking sculpture itself, or better put, rethinking the language used to define it. For what was to count as sculpture now—what criteria could be used to determine its aesthetic norms—had proved among the more vexed issues for critics of contemporary art. In comparison to painting, after all, postwar sculpture was characterized by formalist critics in the mid-sixties largely in secondary terms: it was thought of as "pictorial" or parasitic to the achievements of Abstract Expressionism and the later generation of hard-edge painting. Fried, who had spent the better part of the early sixties writing mostly on painting (with, of course, the profound exception of Anthony Caro) was no different in this regard. He was to follow the example of his former mentor Clement Greenberg, whose thinking on sculpture was always in partial thrall to the dictates of high modernist painting and whose verdict on minimalism was summed up in the damning (if at other moments, ambivalent) phrase that it was little more than "good design."[7]
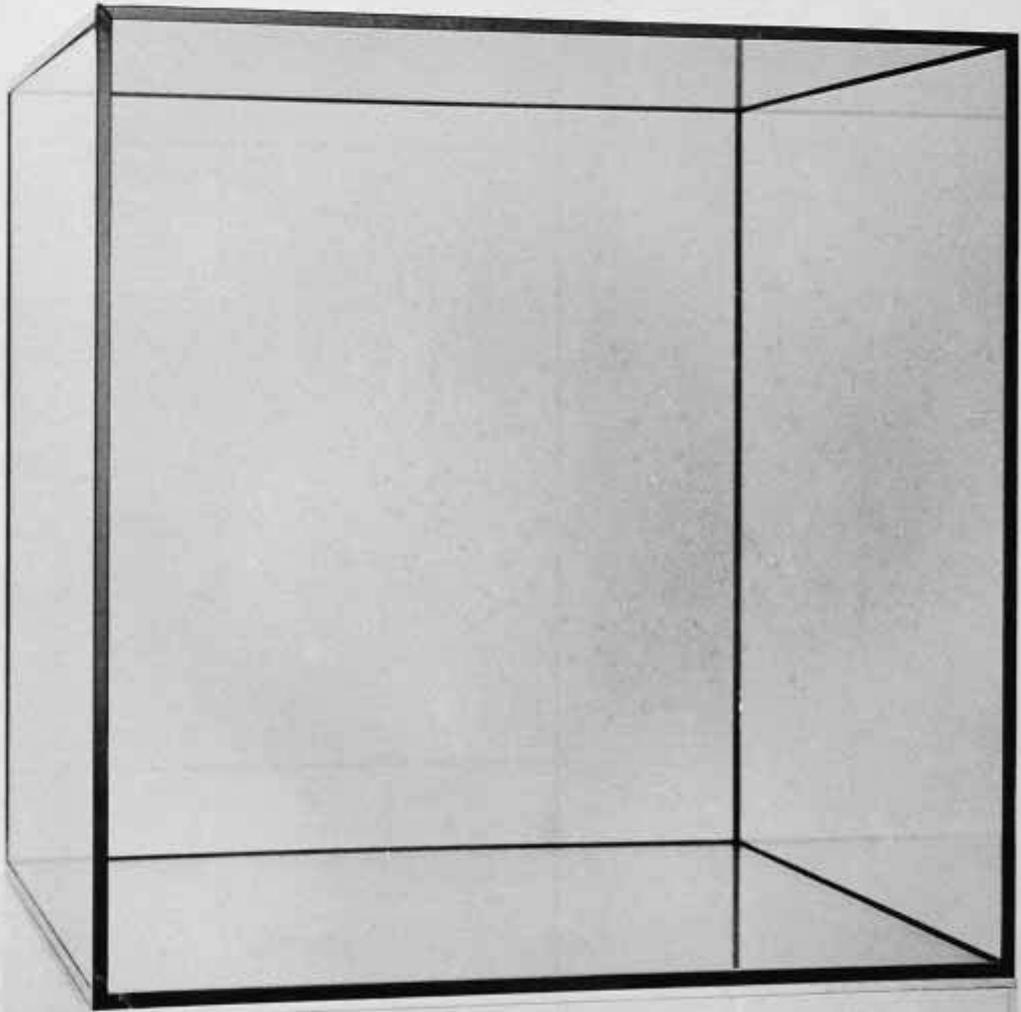
Greenberg's words will come back to haunt us, as will his buried attitudes toward time in the work of art. But his hostile stance toward minimalism would nevertheless seem representative of a whole range

1.1 Larry Bell, "Memories of Mike," cover of *Artforum,* June 1967. Courtesy *Artforum* and the artist.

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of critics—many of whom would be loathe to characterize themselves as high modernists—seeking to reinvent an appropriate vocabulary for the new sculpture. This was as true for Fried as it was for any artist or writer, even as Fried had begun to distance himself from Greenberg's particular modernist polemic around 1966.[8] Undoubtedly the summer 1967 issue of *Artforum* sought to clear the ground in many respects. Yet even among textual company that included LeWitt, Robert Morris, and Smithson—some of whom Fried would attack in his own contribution to the issue—his was the clear standout. Not only was this the case because its antagonism toward minimalism was so deeply felt but also arguably because it opened onto another kind of shift in artistic culture. That shift is best understood through the progressively environmental reach of three-dimensional work from the mid-sixties to the present; its extrinsic coordination of mixed media, even intermedia; and crucially, the structure of time that organizes it.

There is no shortage of close readings of Fried's text, but we need to review his argument in order to establish its formative role with respect to the temporal context. Fried began by calling the "enterprise" of minimalism (ABC art, primary structures, specific objects) a largely "ideological" one. Ideology, of course, equals false consciousness, is "mainly a term of abuse," to follow Raymond Williams; and minimalist or literalist art is such a falsifying (rationalizing) of thought around the gestures it performs. What Fried seemed to object to at the outset was the work's position on taking *no* position, its "neither/nor-ness" in relation to how it was defined against the classic genres of painting and sculpture. That neither/nor-ness, we shall see, concealed a larger problem that couldn't be easily brooked. For all intents and purposes, it reduced to the knotty relationship between medium and time.

To make that point, three texts in particular provoked the critic's ire, all written by artists with whom he has some truck: Donald Judd, Robert Morris, and Tony Smith. As James Meyer points out, these were figures who diverged significantly in both their artistic and critical prac-tice even as Fried identified a unifying logic between them.[9] Famously, Fried lambasted Judd's formulation of the "specific object"—a work of art that occupies a liminal zone between the traditional categories of painting and sculpture—for violating both media at the same time.[10] Robert Morris's "Notes on Sculpture" comes under additional attack, principally because of the artist's explicit understanding of the new

work's reflexivity and its reference to the beholder's situation: duration would underwrite this situation. And Tony Smith's account, taken up shortly, perhaps thematizes the time problem most explicitly for Fried's argument. The artist's acknowledgment of the changed status of sculptural objects only confirmed Fried's worst suspicions. "I didn't think of them as sculptures," Smith offered, "but as presences of a sort."

There's no need to detail the finer points of Fried's discussion of Judd and Morris here. It suffices to recall that Fried rallies against minimalism's "objecthood" and the twinned condition of its "theatricality": the sense in which the object "is concerned with the actual circumstances in which the beholder encounters literalist work."[11] To gauge something of the force of this remark—and highlight its relevance to the subsequent concerns of this chapter—we need to gloss modernism's project of self-criticism, that which would effectively "save" art from the forces of banality or theatricality. And we should state, in no uncertain terms, that Fried's modernism in "Art and Objecthood" departs considerably from Greenberg's. Nevertheless, rehearsing a more global account of this narrative, oft repeated and itself banalized, underscores the core issues at work in Fried's essay. Indeed, it suggests that painting take up an analysis of its own conditions from the "inside"—"through the procedures themselves of that which is being criticized," as Greenberg put it.[12] Through such procedures, painting reentrenches itself in the area of its own "competence"; it shores up its painterly status against the extra-aesthetic.

By now the argument is familiar if no less startling. It describes nothing so much as the modernist object's profound antipathy to the beholder, a resistance that describes the avant-garde's turn away from the popular. For some historians, this is, in its most schematic representation, the philosophical conviction of an Adorno as routed through the painterly prescriptions of a Greenberg. It is one version—among the most insistent version—of the story of modernism.

Far less discussed in the literature around "Art and Objecthood" is the degree to which the *limit condition* of Fried's critique is time. In this context I use the phrase "limit condition" to underscore the foundational status of time in the discussion of theatricality; but I also mean to stress, dialectically, its conditions of *possibility*. This is also to say that time is too often regarded as secondary to the spatial considerations of minimalist sculpture as it is also to suggest a model of time

that haunts the margins of Fried's discussion.[13] Rightfully, the literature on minimalism has taken up its phenomenological "turn" as articulated by Fried, seizing upon its environmental dimensions as central to its art historical legacy. Time, though, is indivisible from any experience of art, minimalist or otherwise, conceived of phenomenologically. For the object's demands upon the beholder's actual circumstances necessarily links it to his or her relation to time. Fried was explicit about this, adamant even, when he wrote on the interpretive stakes raised by Tony Smith's cubes and the way in which these blank-faced objects project a peculiar air of endlessness:

Like Judd's Specific Objects and Morris's gestalts or unitary forms, Smith's cube is always of further interest; one never feels that one has come to the end of it; it is inexhaustible. It is inexhaustible, however, not because of any fullness—*that* is the inexhaustibility of art—but because there is nothing to exhaust. It is endless the way a road might be, if it were circular, for example.

Endlessness, being able to go on and on, even having to go on and on, is central both to the concept of interest and to that of objecthood. In fact, it seems to be the experience that most deeply excites literalist sensibility, and that literalist artists seek to objectify in their work—for example, by the repetition of identical units (Judd's "one thing after another"), which carries the implication that the units in question could be multiplied ad infinitum.[14]

Fried addressed the experience of duration engendered by the minimalist object. The object produces an experience that manages to be both anticipatory *and* repetitive, a time that is at once proleptic and endless. In its dependence on the beholder, the minimalist object has been "*waiting* for him"—anthropomorphically—but once the encounter is made, "the work refuses, obstinately, to let him alone." Minimalist sculpture is a badgering, unavoidable presence, waiting to be acknowledged.[15]

It is telling, for all these reasons, that Fried's account ends decisively with a consideration of time and theater, as if his argument were reaching its logical crescendo. And so it is worth noting the way in which he italicized his final remarks about minimalist sculpture as a matter of time:

Here finally I want to emphasize something that may already have become clear: the experience in question *persists in time,* and the presentment of endlessness that, I have been claiming, is central to literalist art and theory is essentially a presentment of endless or indefinite *duration* . . . The literalist preoccupation with time—more precisely, with the *duration of the experience*—is, I suggest, paradigmaticality theatrical, as though theater confronts the beholder, and thereby isolates him, with the endlessness not just of objecthood but of *time;* or as though the sense which, at bottom, theater addresses is a sense of temporality of time both passing and to come, *simultaneously approaching and receding,* as if apprehended in an infinite perspective.[16]

Fried's argument links the *open endedness* or *sense of duration* of the minimalist object to its violation of medium as *theatrical.* His anxiety about this endlessness is so deeply felt—so inimical to what he regarded as modernism's project of radical self-criticism—it takes on a moralistic charge by the essay's last sentence, in which, citing Jonathan Edwards, Fried proclaimed, "presentness is grace." But presentness is grace not just because the work of art is grasped as the instant or now. What the modernist work of art seeks to accomplish is an experience of time independent of the beholder's presence that would "complete" it. Modernist painting and sculpture *"has no duration,"* to follow Fried's terms; the view of Anthony Caro's sculpture "is . . . eclipsed by the sculpture itself—which it is plainly meaningless to speak of as only partly present. "It is this continuous and entire *presentness,*" Fried claimed,

amounting, as it were, to the perpetual creation of itself, that one experiences as a kind of *instantaneousness,* as though if only one were infinitely more acute, a single infinitely brief instant would be long enough to see everything, to experience the work in all its depth and fullness, to be forever convinced by it.[17]

This is the language of belief at work—of conviction—and it too subscribes to its own temporal reasoning. In opposition to the endlessness of minimalist sculpture, that sense of conviction is equivalent to the object's *presentness.* The modernist work of art's presentness is no less than a function of its self-criticality. In order to

propel conviction, in order to maintain its status as modernist painting
or sculpture, the work of art must always be vigilant about what con-
stitutes its terms through *repeatedly* testing its limit conditions. In part
this is what is meant in saying *"the perpetual creation of itself."* For Fried,
this is a "perpetual revolution."

It's all a far hue and cry from the notion of a timeless and tran-
scendent work of art—of some irreducible essence to be mined in
painting and sculpture—and it tells us something about both the
urgency and "moral tone" of Fried's text. James Meyer's scholarship
on minimalism explores this moralizing turn; and his argument will
help us understand the considerable threat posed by temporality later
discussed in this chapter. Through his careful analysis of the expression
"presentness is grace," Meyer describes the way in which Fried's essay is
at once informed by the Stanley Cavell of *Must We Mean What We Say?*
(the Harvard philosopher's first published collection of essays) *and*
Jonathan Edwards's Puritan theology. In balancing the *doxa* of
eighteenth-century religion with the decidedly secular worldview of a
twentieth-century philosopher, Meyer restores to the text its larger
project for modernism, what he calls Fried's "Ethics of Communication."

Meyer's essay foregrounds the significance of Cavell's dialogue
with Fried in the 1960s, a dialogue that is also critical to important
readings by Rosalind Krauss and Stephen Melville. Cavell, whose
writing on film will be explored subsequently, was both friend and
mentor to Fried, whom he met when joining the Harvard faculty in
1963. Their bibliography is a dialogue of sorts: Cavell's thinking
radiates throughout the art critic's work as much as Fried's inflects
his own. For conviction—in the Friedian sense—bears parallels to
conviction in the antiskeptical sense of Cavell's philosophy. A brief on
the subject not only demonstrates this connection but will later inform
our reading of the time problem in the visual arts of the 1960s more
generally.

Cavell's project of diagnosing and "defeating" skepticism was
born of his study of the ordinary language philosophy of his teacher
J. L. Austin and his reading of Ludwig Wittgenstein's *Philosophical
Investigations*.[18] He would counter the skeptic's doubt, shore up
conviction, through his inheritance of Wittgenstein's formulation of
"criteria" and the related notion of "acknowledgment."[19] Skepticism,
following the tradition inaugurated by René Descartes and David Hume,

rejects the belief that our habituation in language can provide epistemological certainty or knowledge, and it rejects further the logic of induction to make such claims. Cavell challenged the skeptical attitude through his philosophical appeals to everyday speech, which is not at all to say that he believed skepticism can either be proven or repudiated by ordinary language.[20] The gesture of acknowledgment enables conviction, for acknowledgment crystallizes ways in which communities of speakers produce meanings, consensus, and judgment through language. As a commentator on Cavell puts it, "humans are able to transcend their own isolation . . . though not on the base of knowledge alone. What knowing presupposes is acceptance and *acknowledgment*—ways of responding that, though epistemically unassured, secure our habituation with things and others" (my emphasis).[21]

We will take up Cavell in more depth in the following discussion, but first we need remind ourselves of the rhetorical pitch of Fried's essay. In discussing the essay's "moral tone," Meyer pays equal attention to Jonathan Edwards's theology as to Cavell's antiskepticism, and it bears saying that their respective attitudes on time converge in significant ways.[22] Here the question of redemption for the Calvinist theologian was by no means guaranteed by either good works or proclamation, but, following Protestant doctrine, was secured by faith and faith alone, that is to say, *conviction*. "Presentness is hardly secured," Meyer reminds us, "grace is not a given but rather is the exception."[23] And so it is with Fried's modernism. In distilling what was to count as a modernist work of art, Fried understood that each instance, each iteration, raised the stakes as to what modern painting or sculpture could be or do. Most efforts were doomed to fail; a rare few would achieve that elusive presentness.[24]

For all its appeals to said state of grace, Fried's own antiskeptical account is necessarily a historical argument. Close readings of "Art and Objecthood" allow us to approach his language critically and parse the operations internal to the wholly present work of art. To read Fried's text only at the level of his argument's elaboration, however, is to repress its external motivations: its awareness that time has encroached upon the viewing of art and from the outside no less. This is, I will argue, as much a historical proposal as it is an ethical or epistemological one. Embroidering upon Meyer's reading, we shall see that Fried's ethics of communication run up against a different logic of communication,

altogether subject to new conditions of temporality. Time, then, becomes an unavoidable problem for anyone confronting mid-sixties art, minimalist or otherwise. And who better, or more prescient, than artists to get this notion right?

LONG FOREVER

[T]here will be no end to this exquisite, horrible misery, when you look forward you shall see a long forever, a boundless duration before you, which will swallow up your thoughts.

—Jonathan Edwards[25]

Thus with this epigraph from Jonathan Edwards—a vision of hell as a long forever—Robert Smithson threw down the gauntlet in his published response to "Art and Objecthood." Appearing not long after Fried's text, Smithson's letter is filled with the usual good stuff we attribute to the artist's critical pursuits: a dark and incisive wit, a fluid sense of word play, and most of all, an attention to the dialectical flip-flop works of art and art criticism perform. What's more, in seizing upon the "long forever" or endless duration represented by the serial works of Judd, Morris, and Smith, Smithson identified Fried's thesis as a temporal problem. Even the critic graciously acknowledged the artist's canniness, although he recalls it took him many years to reach this conclusion. "Smithson's writings of the late sixties," he would concede, "are by far the most powerful and interesting response to 'Art and Objecthood.' "[26]

It is important that Smithson does not respond to Fried's essay as a personal attack against his community of artists. Instead he finds striking that the critic's hostility toward minimalism closes in on the matter of time, a sense of fallen time in the work of art ("fallen" because in the work's appeal to the phenomenal rather than the aesthetic, it no longer offers the modernist object's redemptive promise). Theatricality is the term that provides entrance into the debate: "Michael Fried has in his article 'Art and Objecthood,' " Smithson argues,

declared a "war" on what he quixotically calls "theatricality." In a manner worthy of the most fanatical puritan, he provides the art world with a long-overdue spectacle—a kind of ready-made parody of the war between Renaissance classicism (modernity) versus Manneristic anti-classicism (theater). . . .

What Fried fears most is the consciousness of what he is doing— namely, being himself theatrical. He dreads "distance" because that would force him to become aware of the role he is playing. His sense of intimacy would be annihilated by the "God" Jonathan Edwards feared so much. Fried, the orthodox modernist, the keeper of the Gospel of Clement Greenberg, has been "struck by Tony Smith," the agent of endlessness. . . .

This atemporal world threatens Fried's present state of temporal grace—his 'presentness.' The terrors of infinity are taking over the mind of Michael Fried.[27]

For Fried's purposes, reviewing Smithson some thirty years after the fact, a few "key sentences" in the artist's response (which Fried italicizes) identify the critic's own peculiar repression of time in his account.

At any rate, eternity brings about the dissolution of belief in temporal histories, empires, revolutions and counter-revolutions—all becomes ephemeral and in a sense, unreal, even the universe loses its reality. Nature gives way to the incalculable cycles of nonduration. Eternal time is the result of skepticism, not belief. Every refutation is a mirror of the thing it refutes—*ad infinitum*. . . . *What Michael Fried attacks is what he is. He is a naturalist who attacks naturalist time. Could it be there is a double Michael Fried—the atemporal Fried and the temporal Fried? Consider a subdivided progression of "Frieds" on millions of stages.*[28]

Smithson was nothing if not wholly immersed in the problem of time and technics in the sixties (this is the subject of chapter 4). Certainly, he saw its iterations in the work of the artists he supported: Morris, Judd, Tony Smith, Eva Hesse, Serra, LeWitt. Hence he calls the critic's bluff. *"Every refutation is a mirror of the thing it refutes— ad infinitum. What Michael Fried attacks is what he is."* Smithson implies that such "temporal" enemies are in fact the critic's uncanny double: the

doppelganger that prophetically foreshadows a symbolic death, in this case, the twilight of the purely present work of art.

Artists would get it right in other ways. Of all the texts Fried would attack in his essay—and one Smithson himself seized upon in his letter to the editor—perhaps Tony Smith's famous interview with Samuel Wagstaff best allegorizes the problem of time and medium that Smithson underscores. Well rehearsed as they are, Smith's words demand to be revisited in this light.

When I was teaching at Cooper Union in the first year or two of the fifties, someone told me how I could get onto the unfinished New Jersey Turnpike. I took three students and drove them somewhere in the Meadows to New Brunswick. It was a dark night and there were no lights or shoulder markers, lines, railings, or anything at all except the dark pavement moving through the landscape of flats. . . . The drive was a revealing experience. The road and much of the landscape was artificial, and yet it couldn't be called a work of art. On the other hand, it did something for me that art had never done. At first, I didn't know what it was, but its effect was to liberate me from many of the views I had had about art. . . . The experience of the road was something mapped out but not socially recognized. I thought to myself, it ought to be clear that's the end of art. Most painting looks pretty pictorial after that.[29]

I have used this quote in the preface to this book; repeating it here stresses its urgency relative to the question of time and medium in the work of art. Indeed the literal refusal of the road to signify—of Smith's "object" to be clearly read—is crystallized around the indeterminacy of both the site and the experience it produces. At the same time, the drive is nothing short of a "revealing experience." Not quite a work of art, it nevertheless "did something" for Smith that a "work of art" could never fully accomplish. This oddly paradoxical encounter—of failing to recognize the contours of an object (the Turnpike) while at the same time gaining insight into the very limits of the traditional work of art— is expressed, metonymically, through the sheer banality of a night drive on an unfinished freeway. Openendedness of interpretation is analogized to the business of incomplete road construction.

And yet, as discussed earlier, Smith's discourse on a literal passage analogizes the question of a *temporal* passage, of duration, before and

around the autonomous work of art. Regard, for example, the final claim of his highway epiphany: "The experience of the road was something mapped out but not socially recognized," he wrote, "I thought to myself, it ought to be clear that's the end of art. Most painting looks pretty pictorial after that." For Smith, the end of art approached: at least the end of art that "looks pretty pictorial after that" or, by extension, "sculpture that looks pretty sculptural" after a long drive on a night freeway. Implicit in these comments—and explicit in the reception of minimalist sculpture—is the way in which the staging of the object as a temporal unfolding violates a reading of the work of art as static, as ontologically secure, and as either genre or medium specific. The car literally drives this sense of medium.

Smith's narrative conveys a sense of openendedness around the work of art that is a function of the organization and expansion of its media. Something that defies not only the categorization of the discrete work of art but signals the very "end" of art itself because, paradoxically, it *is* endless. The question can now be put bluntly: what is the nature of the relationship between time and medium? And following on this, why does this question become so pressing in the art criticism around sculpture in the 1960s, as effectively demonstrated by Fried's protests against minimalism, Smithson's riposte to the critic, and Smith's meditation on the New Jersey Turnpike, his open highway a figure of a long forever?

MIDDLE CONDITION

Some notes toward a preliminary account of this relationship:

Medium, from the Latin, from neuter of *medius,* "middle." Date: 1593. Something in a middle position: a middle condition or degree. A means of effecting or conveying something. A channel or system of communication, information, or entertainment. A mode of artistic expression or communication.

Reciting a dictionary definition amounts neither to writing history nor to proposing a genealogy. Yet *Merriam Webster*'s is to the point in its main entry on *medium.* In its etymological roots as a "middle condition," the word *medium* foregrounds a liminal stance at its heart. The term underscores process or mediation, is a *vehicle* of communication

rather than the fact of communication itself. This is an important distinction, for though the word medium is most commonly understood as the physical basis of a work of art (a definition we could hardly dismiss), a more fundamental reading of the term emphasizes its *formative* value as a communicative agent between two points. Medium is always already in between; becomes like a speech act, is performative in staging a dialogue between work of art and beholder. And in this sense medium always internalizes a singular engagement with time. For the act of mediation is a process, and that process (because in the middle of things) is necessarily partial. Hence Tony Smith's allegory of the New Jersey Turnpike as a model for rethinking the sculptural medium. Something about that drive dramatizes for the artist the communicative contingency of the work of art. Hence Fried's claim that much minimalist work is anthropomorphic, as if its encounter with a beholder in space is that which completes it, as if in a dialogue.

Note also that when the dictionary entry on *medium* gets down to the business of art, it refers to medium as a "mode [that is, a *use, method or practice*] of artistic expression or communication." It is less so the rigid determinations of painting and sculpture—determinations based exclusively on the work's material properties. Not that materiality gets thrown out of the picture by any means: this is not to reinvent the wheel for modernism. If anything, it is to restore to the word *medium* its sense of communicative and therefore *temporal* contingency, whether or not that of painting or sculpture or drawing or some other middle condition.[30]

To be sure, the relationship between time and medium has been a long-standing problematic within modernism: for modernity itself folds into its understanding the emergence of a new time.[31] Ever since G. E. Lessing published his famous *Laocoön* in 1766, we have been heirs—Enlightenment heirs—to a thinking about the arts judged not only through the laws of their respective media (the separation between the temporal and spatial arts) but the importance of time in passing such verdicts.[32] Famously, Greenberg's well-known account of 1940, "Towards a Newer Laocoön," revisits Lessing's formulation in an effort to justify the evolution, and by extension, autonomy of abstract painting.[33] An unpublished draft of the essay, introduced with a passage from Paul Valéry's *Eupalinos, the Architect,* reveals the very matter of media to be a

matter of time. So, then, at the start of this formative essay, Greenberg gave us a dialogue:

SOCRATES: Whether that singular object was a work of life, or of art, or whether one of time, and a sport of nature, I could not tell. . . . Then, suddenly, I threw it back into the sea.

PHAEDRUS: There was a splash, and you felt relieved.

SOCRATES: The mind does not dismiss an enigma as easily as that.[34]

The passage seems brusque, mysterious, in the context of Greenberg's discussion. Yet Valéry's prose piece speaks precisely to the question of medium and time suggested by the critic. Presented as a pseudo-Socratic dialogue, it sees the shades of Socrates and Phaedrus, drifting in the Elysian Fields, discoursing on the architect Eupalinos. In an especially resonant moment of their conversation, Socrates recounts a pointed, and poignant, episode from his youth. Walking along the seashore, he stumbles upon a "singular object" that is at once so compelling *and* ambiguous, so enigmatic in form, purpose, and origin that it presents an ontological dilemma.[35] Here, a mysterious thing inspires a philosophical turn on the nature of medium itself. So absorbing is its hold over the young Socrates that he has no choice but to it fling into the sea, as if its power to control him were itself dangerous. For whether a work of life, or of art, or whether one of time, the status of that singular object is a question "not easily dismissed."

The attractions of these lines for Greenberg are obvious. Positioned at the opening of his essay, they express a confusion about an object as a matter of production, medium, and, by extension, time. If, as many critics argue, *Eupalinos* concerns the relationship between "knowing and constructing" in making works of art, here time gets folded into the equation. Had the object been made purposefully, by human hands, according to the logic of techne; or was it the chance accident of nature, a "readymade" produced through the roiling motion of the sea? As if to foreshadow discussions of the art/life thematic so popular in the postwar era, Valéry's mysterious object anticipates the Friedian sense in which a literalist object ranges anthropomorphically, and therefore dangerously, on the limits of our actual space.

But something is missing in both Greenberg's discussion of painting (and Fried's subsequent essay on sculpture) and for the purposes of twentieth-century art, the silence that surrounds this lack is critical.[36] For when we gloss the relationship between time and medium in the visual arts, painting and sculpture is hardly the first thing that springs to mind as much as film and its parent medium, photography.[37] (Video, of course, also applies here, if with some structural distinctions from film; performance will also prove relevant.) We think, for instance, of Erwin Panofsky's characterization of film as "the dynamization of space or the spatialization of time"—properties that are "self-evident to the point of triviality."[38] Perhaps we think of Roland Barthes's account of the photograph, invariably crystallizing around it being an art of time, an art of the "that has been." The conjunction between time and medium is so intrinsic to the cinematic image—"the movement image" as Gilles Deleuze felicitously called it—that film is reflexively called a time-based medium. Given our previous reading of the term *medium,* it is a buried tautology but a significant one for thinking about the "static" arts' relationship to temporality.

But what can this tell us about sculpture? How is Fried's thinking on the topic inflected by the more obvious relationship between time and medium within film? The critic, significantly, does not offer a formulation for the term *medium* itself within "Art and Objecthood," and he would later acknowledge that the notion remains undertheorized in his account. In the course of his argument, he would employ the term to describe the "medium of shape" as much as the medium of painting or sculpture as such. But Fried let dangle a rather mysterious caveat about film in "Art and Objecthood." The passage is worth citing in full, as it unintentionally points to the "time problem" in the visual arts of the moment more generally.

It is the overcoming of theater that modernist sensibility finds most exalting and that it experiences as the hallmark of high art in our time. There is, however, one art that, by its very nature, escapes theater entirely—the movies. This helps explain why movies in general, including frankly appalling ones, are acceptable to modernist sensibility whereas all but the most successful painting, sculpture, music, and poetry is not. Because cinema escapes theater—automatically, as it were—it provides a welcome and absorbing refuge to sensibilities at war with theater and

theatricality. At the same time, the automatic, guaranteed character of the refuge—more accurately, the fact that what is provided is a refuge from theater and not a triumph over it, absorption not conviction—means that the cinema, even at its most experimental, is not a modernist art.³⁹

There is much to parse here—perhaps too much for the immediate concerns of this chapter. The passage itself is dense, its vocabulary elliptical. But in reading these lines through the temporal framework of "Art and Objecthood," one can't help but feel confronted by that same "singular object"—that enigma—that begins Greenberg's "Laocoön." For film (or, more pointedly, "the movies" with its popular cultural associations) makes an abrupt but significant appearance in this Friedian context, and it casts a peculiar light on the remainder of his discussion on sculpture. Theatricality is that which the movies would effectively "defeat"—indeed, cinema escapes theater *automatically,* is an "*automatic,* guaranteed form of the refuge." Yet Fried qualified this defeat by suggesting that it offers a "refuge" rather than a "triumph" over theater as such. And though even "frankly appalling" movies are "acceptable" to the modernist sensibility, Fried was not willing to concede to cinema the imprimatur of modernist art form. Nevertheless, something about the ontology of film for the critic—something about its *automatic* quality—allows further speculation on the problem of time as it relates to other artistic media of that moment.

FROM TOTAL THERENESS TO RECURSIVENESS

Cavell might shed light on the matter. Maybe Fried's friendship with the philosopher suggests a thinking of time specific to film and, through its inverse, other contemporary media, both time based and static. Already we've noted that Cavell's interest in modernist painting was shaped by the Fried of "Three American Painters." It's not hard to imagine the art critic similarly influenced by the philosopher. The debt is reciprocal.

Of course, "Art and Objecthood" appeared a few years before *The World Viewed* (1971), Cavell's first contribution to the literature on cinema. But as Rosalind Krauss has argued in an extraordinary series of essays on the "post-medium condition," Cavell's reflections on film— particularly his readings of "automatism"—are instructive for the

problem of medium in contemporary art.[40] The title of the book reveals
a certain affinity: Cavell had been reading Heidegger's *Being and Time*
around the period; had avoided and then taken up "The Age of the
World Picture"; and had hoped to dramatize the sense of Weltanschau-
ung that film provided as suggested by the title of Heidegger's essay.[41]
Questions of time—automatism, first, followed by the twinned concepts
of "total thereness" and the "instance"—would indeed prove critical,
revealing the decisive role Fried's theory of painting played in Cavell's
reading of film.[42]

   To unpack the concept of "automatism," we need first gloss
Cavell's thesis. At its most fundamental level, *The World Viewed* is an
ontology of film, one in which the projection of the world by the moving
image—its projection of reality—is a world viewed without the viewer
being seen. Film satisfies "our wish to view, unseen, the world re-
created in its own image," as if we, its viewers, were invisible. The
concept stems from our fundamental displacement from the world as
modern subjects—from the larger philosophical acknowledgment,
steeped in Cartesian doubt and Kantian epistemology, that it is im-
possible to know the world in its totality, to see everything.[43] Hence to
view the world unseen, as we do in the movies, is a "mode of perception
(that) feels natural to us,"[44] for we can no longer claim to see or know
the world as a whole. Film, though, magically fulfills that wish. As
Cavell himself wrote, "The world of a moving picture is screened. . . .
A screen is a barrier. . . . It screens me from the world it holds—that
is, makes me invisible. And it screens that world from me—that is,
screens its existence from me."[45] For Cavell, the notion that one wishes
to view the world as if from behind a screen (or from behind the self) is
an issue of modern subjectivity; and it cleaves suggestively with Fried's
later art historical account of the absorptive powers of modernist
painting, already at work in "Art and Objecthood." But Cavell drama-
tized the extent to which we have naturalized our desires and fantasies
as private, invisible. Watching movies confirms this sensibility by
externalizing, and quite literally projecting, what is in essence internal
to the self.[46]

   Cavell's book is rigorous, difficult. Attuned though it is to the
subtleties of ordinary language, the vast implications of his text go well
beyond the commonplace. To say that *The World Viewed* is *just* an
ontology of film is like saying "Art and Objecthood" is merely reportage

on minimalist sculpture. In its wide ranging meditations upon cinema—what constitutes the medium, why its appeal is so broad, its relationship to audience, the shortcomings of the criticism surrounding it, and so on—Cavell's is a larger treatment on both modern subjectivity and the modern work of art's capacity for self-criticism or acknowledgment.

Earlier we discussed how acknowledgement, for Cavell, leads to the kind of conviction necessary to overcome philosophical skepticism. In the context of the visual arts, acknowledgment might mean how a serious work of art recognizes the conditions of its possibility through the medium and thus restores its sense of conviction and connection to the viewer's reality as a function of *presentness.* "The concept of acknowledgment is immediately related to issues of presentness," Cavell wrote; acknowledgment within modernist painting refers not just to the work of art but to "what the painting of them is. At some point the work must be done, given over, the object declared separate from its maker, autonomous."[47]

It is at this juncture that Cavell's formulation on automatism enters the argument, and it is significant that it immediately precedes his chapter "Excursus: Some Modernist Painting." For Cavell automatism was defined largely in relation to a medium's "manufacturing mechanism": what is automatic to the medium, how the medium can reproduce within itself its own mechanism, in short, a medium's *recursiveness.* As Krauss notes, the term *automatism* resonates significantly with other dimensions of modernist art history, calling up the surrealist notion of psychic automatism, while at the same time invoking the modernist object's impulse to autonomy. Film and, even more fundamentally, photography suggest a particular relationship to automatism in their presentation of "reality." Like the term *automation,* to which it is also etymologically close, *automatism* describes a mode of production of a wholly present character. "Photographs are not hand-made," Cavell offered, "they are manufactured. And what is manufactured is an image of the world."[48] Because film finds its basis in photography, it relies upon this mechanism to an even greater degree. As Cavell noted on automatism:

I said also that what enables moving pictures to satisfy the wish to view the world is the automatism of photography . . . *Reproducing the world is the only thing film does automatically.* I do not say that art cannot be

made without this power, merely that movies cannot so be made . . . It may lose its power for us. For what has made the movie a candidate for art is its natural relation to its traditions of automatism.

. . . One might explain the movie's natural relation to its traditions of automatism by saying that a given movie can naturally tap the source of the movie medium as such. And the medium is profounder than any of its instances. . . . One might say that the task is no longer to produce another instance of an art but a new medium within it. (Here is the relevance of series in modern painting and sculpture, and of cycles in the movies, and of the quest for a "sound" in jazz and rock.) It follows that in such a predicament, media are not given *a priori*.[49]

For Cavell, medium was not a given, is not an a priori; a point that will prove critical for his reading of the work of art's relationship to time as well as those practices that depart from his model. "I characterized the task of the modern artist as one of creating not a new instance of his art but a new medium in it," he wrote. "One might think of this as the task of establishing a new automatism. The use of the word seems to me right for both the broad genres of forms in which an art organizes itself . . . and those local events or *topoi* around which a genre precipitates itself."[50] Automatism, then, is the mechanism intrinsic to a medium's self-productive logic; but its importance extends beyond its generative capacities. Indeed, in line with the notion of a world viewed from behind the self, automatism underscores something about modern subjectivity as well. As Krauss points out, automatism not only names the mechanical, "automatic" dimension of photography or film but "mechanically assures that as spectators our presence to that world will be suspended."[51] Film, in other words, automatically suspends the presence of the beholder in her confrontation with the medium. To follow Fried's account, it offers a guaranteed form of refuge from theater, for the world of the film does not appeal to the actual circumstances in which the viewer encounters it.

Cavell's subsequent chapter "Excursus: Some Modernist Painting" makes even more explicit the temporal prerogatives so crucial to "Art and Objecthood." In discussing Fried's own aesthetics of presentness, Cavell elaborated on what he calls the "total thereness" of painting, by which he meant how a painting is "wholly open to you, absolutely in front of your senses, of your eyes, as no other form of art is."[52] It is "an

event of the wholly open, and of the declaration of simultaneity."[53] In an astonishing passage, Cavell articulated the function of the series within modernist painting with respect to the "instance"; and this instance, one gathers, is not unlike the self-productive logic of a movie's automatism. The acutely Friedian tenor of his reading stems from the way he thematized the moment of the instance as a certain loss: a loss of the world, perhaps, or the lost beauty or youth. It is precisely that recognition of loss that demonstrates the fragility—and therefore the preciousness—of the instance, something deeply refined. There is the ring of the Edwardsian in Cavell's language; it shimmers with the sense of a fallen time and the possibility of a redemptive temporality along with it, one in which each new instance restores "conviction" to the viewer. "A new medium establishes and is established by a series," Cavell wrote. "Each instance of the medium is an absolute realization of it; each totally eclipses the other."[54]

The fact about an instance, when it happens, is that it poses a permanent beauty, if we are capable of it. That *this* simultaneity should proffer beauty is a declaration about beauty: that it is no more temporary than the world is; that there is no physical assurance of its permanence; that it is momentary only the way time is, a regime of moments; and that no moment is to dictate its significance to us, if we are to claim autonomy, to become free.

Acceptance of such objects achieves the absolute acceptance of the moment, by defeating the sway of the momentous. It is an ambition worthy of the highest art. Nothing is of greater moment than the knowledge that the choice of one moment excludes another, that no moment makes up for another, that the significance of one moment is the cost of what it forgoes. . . .

In its absolute difference and absolute connection with others, each instance of a series maintains the haecceity (the sheer that-ness) of a material object . . .[55]

The "instance" for Cavell is a kind of Friedian presentness, and in this lies its importance for both film (as it applies to its automatism) and modernist painting (in its exploration of medium through the series).

In *A Voyage on the North Sea,* her account of Marcel Broodthaers, Rosalind Krauss takes up the question of automatism to turn the received

wisdom of medium specificity on its head. For Krauss, Cavell's reading of both film and painting offers a way out of modernism's medium-specific essentialism, those readings that reductively emphasize a medium's physical properties as timeless and unchanging. This standard reading of medium may tally with some of the Kantian aspects of Greenberg's writing, if not the Fried of "Art and Objecthood." As Cavell's thinking reveals, however, the success of an art form, whether painting or film, lies in its capacity to restore conviction through the "instance" or its "total thereness"—a kind of "event" organized around a medium that is not a priori, as he writes. Krauss will find something especially provocative in these remarks; they line up with the notion that the medium is internally differentiated. "What 'automatism' thrusts into the foreground of this traditional definition of 'medium,'" she writes,

is the concept of improvisation, of the need to take chances in the face of a medium now cut free from the guarantees of artistic tradition . . . The attraction of Cavell's example for me was on the internal plurality of any given medium, of the impossibility of thinking of an aesthetic medium as nothing more than an unworked physical support.[56]

Krauss underscores further the notion of medium as something that is "made"—not given—and thus points to the possibility (as in the film and mixed-media work of Broodthaers) of its aggregative or hetero-geneous quality.

Krauss's reading of medium highlights a key feature of Cavell's thinking with respect to time: automatism is internal to the medium of film. That is, film internalizes time automatically. Intrinsic to its structure, time is film's one constant. Perhaps one reason Fried could provisionally accept film in "Art and Objecthood," even though a time-based medium, is that its self-reproductive mechanism is not unlike what modernist painting attempts to do repeatedly in a series; and through that very mechanism automatically keeps at bay a sense of the viewer's presence. Each new instance, then, offers the potential state of presentness; each new work attempts to sustain that sense of con-viction. For in this formulation, medium builds, improvisationally, from a set of rules that came before. Critically, Krauss identifies this as the *recursive* structure of medium, and this identification allows us to iden-tify a parallel reading of time at work in another context.

60

The term *recursion* names an increasingly important model of temporality in the postwar era, one with peculiar implications for the art of the 1960s.[57] Although the concept by no means originated in the period, its applications grew exponentially at the time. The word derives from the Latin for "a return" and implies a process of "running back," marking a decisively temporal relationship to problems of self-reference and, one might add, self-criticism or self-reflexivity. Recursion refers to the process of repeatedly applying a set of rules, operations, or conditions to a given thing in order to define or test it. It can be applied indefinitely. Practically speaking, it is a principle most commonly applied to mathematics (set theory or recursion theory), linguistics, and computer science: it is bedrock to the logic of programming, for instance, even as it generates its own problems of computability.[58]

But as Krauss's reading of automatism makes clear, the implications of recursion extend well beyond algorithms and software to a problem of time more broadly understood, in this instance, organized around the question of medium. And if recursion refers to the process of circling back to a given set of conditions—conditions, we might add, that with each instance restore themselves through that very process of running backward—the mechanism behind that bears a distinct relationship to automatism. We might also refer to this process as autopoiesis—self-production or self-making, or self-organization. That neologism, coined by the Chilean biologist Humberto Maturana in the 1960s and elaborated on further in collaboration with Francisco Varela, was itself born of postwar science and progressively employed with respect to that era's technology. Its formulation, coupled with the notion of recursion more generally, might tell us something about issues of time so pressing to the art of the sixties.[59] For it is within the discursive sphere of systems theory that we see how a class of objects self-reproduces a temporal logic not dissimilar from the mechanism of automatism described by both Cavell and Fried. In fact, we will see this kind of time in a great deal of sixties art: the work of serial systems and of systems aesthetics. Its modeling of time bears a peculiar family resemblance to Fried's, suggesting that sense of presentness so esteemed by the critic may not be forthcoming after all. To borrow from Smithson's letter on the art critic, "every refutation is a mirror of the thing it refutes . . . What Michael Fried attacks is what he is."

So, then, we turn to the second party in this dialogue, bracket Fried's reading for a moment to gain insight into a notion of time beyond presentness. Fried's "atemporal world," to invoke Smithson once more, finds an inverted model of itself outside itself in systems. It is one that will talk back.

SYSTEMS

What does it mean to speak of a work of art as a "system" in the 1960s?[60] To invoke the word *system* as it applies to the culture of the sixties and early seventies is to solicit a range of competing associations. Viewed against the activist backdrop of the era, the phrase "*the* System" may resonate with political implications of a totalitarian or sinister nature, calling up a dark social machinery—a monolithic authority— against which the counterculture variously rallied. This would be the position advocated and popularized by Students for a Democratic Society. For others yet, the "systems" view of things granted a more ecological perspective on the world at large: the sense of inter-dependence or mutual causation organizing operations of both the social and biological. *The Whole Earth Catalogue* (1968) for instance, described by Todd Gitlin as "The Sears Catalogue for the New Age," promoted dozens of books and products under the rubric of *systems* with the result that texts by the cybernetician Norbert Wiener bumped up against paperbacks on tantric art, John Cage, and yoga, while Buckminster Fuller–inspired domes shared space with tepees and kerosene lamps (figure 1.2).[61]

Yet systems analysis, *systems discourse, General System Theory,* or just plain *systems theory* refers to something quite historically specific at the same time as it signals a certain openness in the study of scientific, natural, and cultural phenomena. Historically coincident with what Norbert Wiener called the "Second Industrial Revolution" of the com-puter and automation era, not to mention the military technology of the war effort, the expression has a scientist or bureaucratic ring to it. And that is to the point, for systems theory is a theory of organization and *communication.* In the pithiest terms, systems theory, in part descendent from the life sciences, is the study of an organism as an "organized complexity." In parallel fashion, cybernetics—reductively put, the

DYMAXION SKY-OCEAN WORLD

CLOSED ECOLOGICAL SYSTEM

WATER AND AIR RECIRCULATION SYSTEM

METABOLIC REQUIREMENTS & RESULTANT WASTES IN POUNDS FOR A 160 LB. MAN

Sources: (1) C. S. Mills, R. L. Butterton, Douglas Missile & Space Systems Development Interplanetary Missial Life Support System, 1965.
(2) NASA: ASD Report 70 61-303.

WDSD Document 6

HUMAN DAILY METABOLIC TURNOVER

Source: Agogos, Douglas Missile & Space Publication No. 6, 1965, p. 8.

science of circular causal mechanisms or feedback—was devoted to thinking about bodies through the terms of organization and information exchange. Here, organization refers to the patterning or configuration of relationships that constitute a certain unity; it means to highlight "relations that define a system as a unity, and determine the dynamics of interaction and transformations which it may undergo as such a unity."[62] This covers a great deal of ground for a definition so succinct, but the elasticity of the term was critical. As the English physiologist Ross Ashby described it, cybernetics "treats not things, but *ways of behaving.*"[63] Not semantics, in other words, but grammar. Not a *what* but rather a *how.*[64] Or, as it is applied to a recursive universe, not ontology—what things are, but *ontogenesis*—how things become.

Although generally treated under the rubric of systems discourse, systems theory and cybernetics are not wholly congruent terms, and their institutional histories diverged in significant respects.[65] Nor, as we shall see shortly, is systems theory a unified field in its own right: its "first-order" and "second-order" manifestations are organized around a distinct understanding of the role of the observer in each. A closer reading of cybernetics follows in chapter 4; what concerns us here are the issues explicit to the broad cultural reception of systems discourse. Following a reading by the Austrian biologist Ludwig von Bertalanffy, General System Theory is an organicist approach to the sciences, which posits an isomorphism between the structure of communication and events in bodies typically thought of as distinct and autonomous from one another. Its earliest proponents acknowledged a growing specialization within the sciences, to the extent that engineers, physicists, and biologists, in spite of—or because of—their training, could no longer efficiently communicate their interests across disciplinary lines. Yet developments within the computer technology of the forties and the postwar era, von Bertalanffy writes, "placed new demands on 'heterogeneous technologies' and obliged an approach that transcended the authority of a specialist in one field."[66] Von Bertalanffy also spoke to the world-historical implications of system discourse as emerging out of and responding to the technological catastrophes of mid-century.[67] As such, General System Theory is seen to recast the relationship between the sciences and other disciplines—clearing the lines of communication, so to speak—so as to avoid the kind of technocratic reason that culminated, to follow some, in the Bomb. Noble as such intentions are, the

irony is not lost in translation: systems discourse was in certain respects intended to humanize the sciences, but it does so through effectively colonizing other disciplines.

As systems theory works to undo the aggressive tendency of the scientific professions toward autonomy, it is necessarily environmental in its scope and interdisciplinary in its reach, if initially embedded in the "hard" sciences. In this capacity, it reproduces, at the level of its institutional and professional motivations, the demands of its object of inquiry. As von Bertalanffy wrote in his introduction to his volume of collected essays *General System Theory* of 1968,

What may be obscured in these developments—important as they are—is the fact that systems theory is a broad view which far transcends technological problems and demands, a reorientation that has become necessary in science in general and in the gamut of disciplines from physics to biology to the behavioral and social sciences and to philosophy. It is operative, with varying degrees of success and exactitude, in various realms, and heralds a new worldview of considerable impact.[68]

Systems theory initially did finds its applications in the sciences; as mentioned before, it was closely linked to the contemporaneously emerging field of cybernetics as well as the war-connected game and information theory of John von Neumann, Oskar Morgenstern, Warren Weaver, and Claude Shannon. In the fifties and sixties, though, its operations were neither restricted to the Pentagon nor the scientific elite but were meant to account for the interrelationship of all types of cultural and natural phenomena. Its list is a disparate one. Psychology and modern religion; anthropology and urban planning; business management, cognitive science and the ecological movement: all find their place under the systems umbrella. It is a testament to the reach of system analysis that one might count, among the vast literature on its applications, examples ranging from Buddhism to Alcoholics Anonymous.[69] Indeed, by 1972, systems theory would be seen as a model for conceptualizing the art world.[70]

As a theory of organization and communication, von Bertalanffy's biological account of systems discourse concerned itself principally with *open* systems.[71] Open systems exchange matter and energy with their environment in the maintenance of a steady system: they are self-

regulating. Physics, on the other hand, deals largely with closed systems; and following the Second Law of Thermodynamics, those systems demonstrate the will to disorganization known as entropy.[72] (Open systems, by contrast, function through negative entropy, meaning they become more and more differentiated *and* more organized over time.)

The later generation of systems theorists, influenced largely by Heinz von Foerster's notion of second-order cybernetics, would find General System Theory increasingly problematic, instead emphasizing the role of the observer on the system. Second-order cybernetics rests with the idea that the person who engages the system fundamentally alters it, or perhaps more radically put, constructs it, by virtue of the language used to describe its operations or ask its questions. The system is "autonomous" insofar as it is implicitly "constructed": it is what von Foerster refers to as "cybernetics of cybernetics."[73] "Second-order observation observes only how other observes," Niklas Luhmann remarks. "The first-order observer concentrates on what he observes, experiences, and acts out within a horizon of relatively sparse information."[74]

The activity of observing establishes a distinction in a space that remains unmarked, the space from which the observer executes the distinction. The observer must employ a distinction in order to generate the differ-ence between unmarked and marked space, and between himself and what he indicates. The whole point of this distinction (its intention) is to mark something as distinct from something else. At the same time, the observer—in drawing a distinction—makes himself visible to others. He betrays his presence—even if a further distinction is required to distinguish himself.[75]

In other words, the system is necessarily bracketed by the acknowledg-ment of an observer's construction of the system itself, as well as the observer's self-construction (or even acknowledgment) as an observer. The epistemological dimension of systems theory is paramount in this sense: the observer is implicated as that system's first principle, its "structurating" mechanism.[76]

Whether the systems are closed or open, whether environmental or wholly autonomous, the impact of systems discourse within both the

sciences and humanities is immeasurable. My argument is that its rhetoric informs and certainly facilitates a new understanding of many of the artistic practices of the 1960s, notably those that Fried would identify in terms of their theatricality. For both systems theory and cybernetics are fundamentally engaged with problems of time, a notion critical for our revisionist appraisal of Fried's text. If systems theory is concerned with the communication and patterning of relations within an organization, in both its first- and second-order approaches, time would play a formative role in that behavior.

Here the reader might be inclined to see such behavior as deeply *theatrical*—theatrical in its expansiveness; in opening itself to those very things that admit to the systems' "impurity"; or alternately in acknowledging the observer's construction of the system from outside it. It is in that system's extended (and extensive) relation to time that we confront such theatrical behavior, perhaps viewing it as a kind of dark mirror to the automatist mechanism inherent to film and modernist painting. Recursion, after all, is a form of circular organization; autopoiesis is self-producing, repetitive. As one commentator of autopoiesis put it, "one reason the concept of autopoiesis excites me so much is that it involves the destruction of teleology." "When this notion is fully worked out," he continued, "I suspect it will prove to be as important in the history of the philosophy of science as was David Hume's attack on causality."[77] The cybernetic account of causality and teleology in the communication of a message is critical here.[78] It focused on how the type of "message" or "variable" introduced into a system constitutionally alters it, a point subsequently taken up in terms of "feedback".

Indeed systems theory and cybernetics devoted themselves to predicting results in systems, attempting to regulate the future behavior of a system by anticipating both the type and quantity of messages or information introduced at a given moment. Both, then, are probabilistic sciences oriented toward questions of temporality, futurity, and flux: endlessness, in short.[79] Crucially, however, those predictions are not determined through principles of linear causality but are arrived at negatively or recursively. As the anthropologist Gregory Bateson described them:

Causal explanation is usually positive. We say that billiard ball B moved in such and such a direction because billiard ball A hit it at such and such

an angle. In contrast to this, cybernetic explanation is always negative. We consider what alternate possibilities could conceivably have occurred and then ask why many of the alternatives were not followed, so that the particular event was one of the few which could, in fact occur. . . .

In cybernetic language, the course of events is said to be subject to restraints, and it is assumed that, apart from such restraints, the pathways of change would be governed only by equal probability.[80]

Causation and causality, of course, are hardly novel problems within either philosophy or the history of science: from Hume to Heisenberg to Karl Popper, challenges to causal determinism have been central to the discourse of scientific modernity.[81] But the negative or recursive aspect of Bateson's example spins this history in a slightly different direction. What this may represent, to borrow Luhmann's more contemporary reading of systems discourse, is a "recursive universe"—a universe always subject to the laws of autopoiesis.[82] It is recursive insofar as a system always returns to its own patterns of behavior—always "runs back" to them—as much as it projects itself into the future through the input of new messages.

Conceit in hand, we are now positioned to read the art of the 1960s relative to systems theory and the question of time. For in the spirit of its interdisciplinarity, systems topics found a ready audience with much art of the period, much as it had an impact on other branches of the humanities. When, for example, we read of "serial systems," "systems aesthetics," or even "real-time aesthetics" in the art criticism of the moment, we are in direct confrontation with its rhetorical legacy.[83] Not surprisingly, the new time-based media of video fell under its purview as did the newly emerging field of computer graphics; so too would early experiments in cyborg art and artificial life.

But this is not my interest here, crucial as it is to the art of the late twentieth century. Systems theory was applied to emerging forms of digital media, yes, but it also served to explain art not expressly associated with technology today: conceptual art and its linguistic propositions, site-specific work and its environmental dimensions, performance art and its mattering of real time, *minimalism* even.[84] Given our investment in the Friedian narrative so far, the particular association between minimalism and technology might not seem immediately obvious. When the relationship is discussed, more often

than not some acknowledgment is paid to the representation of industrial manufacture and labor: Carl Andre and his railroad ties, for instance, or Serra wielding his molten lead at the blast furnace.[85] When such work is treated through systems analysis, however, we highlight the kind of time problem Fried found so pressing in "Art and Object-hood" and the deep structure—the *communicative* structure—of a recursive temporality by implication. We also put some pressure on the word *medium* in the broader cultural context of the 1960s and we begin to see how it becomes progressively permeable to other uses of the term within the culture, namely, the temporal implications that derive broadly from the expression *new media.*

Medium/New Media: the pairing is etymologically close but may seem art historically tenuous, calling up a host of morphologically skewed comparisons. In what art historical universe, for example, might a Kenneth Noland coexist with silicon and punch cards? Posing the relationship in these terms, though, is to miss the point; bluntly put, it is to mistake hardware for software, to hypostatize objects over information. As Lev Manovich makes clear in his genealogy of new media's "language," however, the term *media* necessarily internalizes something of its communicative function. In attempting to define what it is that makes media "new," he speaks to media transformations from the historical avant-garde to early cybernetic culture to our present digital one. If the popular understanding of new media revolves around everyday things, Manovich emphasizes its productive and communica-tive logic. "Today," he writes, "we are in the middle of a new media revolution—the shift of all culture to computer-mediated forms of production, distribution and communication. The computer media revolution affects all stages of communication."[86]

Manovich's definition is suggestive in rethinking the historical convergence between medium and new media in the 1960s. In fact, many artists and art critics elaborated upon the nexus between the two, some originating in the hotbeds of technological and scientific inquiry. At the Center for Advanced Visual Studies at MIT, for instance, Gyorgy Kepes fostered a community that by all appearances may seem to subscribe to the conventional understandings of art and technology partnerships. Founded by the former Bauhaus associate in 1967, the center's residency program brought together artists, engineers, and mathematicians in a seeming effort to bridge the Two Cultures divide

articulated by C. P. Snow. Yet it was with Kepes's important edited publications, the "Vision + Value" series, that the systems ethos became explicit. There, in his seven-volume set dating from 1965–66, artists and critics expounded on the notion of art as communication—as language and symbolic systems, as structure and environment, as module and proportion—in no uncertain terms. The book jacket for *Sign, Image, Symbol* (1966) (cover pictured in figure 1.3) speaks explicitly to such concerns. "Communication, in the very broadest sense of the term, is the subject of this volume," it begins.

Everything that exists and happens in the world, every object and event, every plant and animal organism, almost continuously emits its characteristic identifying signal. Thus, the world resounds with these many diverse messages, the cosmic noise, generated by the energy transformation and transmission from each existent event.[87]

Hardly the stuff of traditional art criticism, this was systems "speak" addressing the question of the visual arts as a sign system. From a contemporary perspective, the contents of the book are all the more surprising in this light. Appropriately enough, the prominent cyberneticians Lawrence Frank and Heinz von Foerster contributed the opening salvos. But in the rarefied mix appeared Saul Bass—the graphic designer best known for his title sequences to Alfred Hitchcock and James Bond flicks—as well as Ad Reinhardt, at the time painting the blackest blacks. As if to close the circle, von Bertalanffy offered his own take on visual symbols and "The Tree of Knowledge."

The relative success of Kepes's series (that is to say, the fact of the series' existence itself) demonstrates the relevance of such concerns for certain art communities of the mid-sixties. But there was no better-known supporter of this tendency than the artist, critic, and curator Jack Burnham, author of the volume *Beyond Modern Sculpture* and organizer of the Jewish Museum's exhibition *Software: Information Technology. Its New Meaning for Art* of 1969. Even more explicitly than Kepes's project, Burnham argued that the systems perspective allowed the artist to move beyond the formalist legacy of art criticism, with its emphasis on the autonomy of the discrete and singular object, and by extension, the value of a work of art's "presentness" championed by Fried (and further explored by Cavell with respect to film). On the

1.3 Book Jacket, *Sign, Image, Symbol,* ed. Gyorgy Kepes (George Braziller, 1966). Courtesy George Braziller, Inc., Publishers.

Sign
Image
Symbol

edited by Gyorgy Kepes

Rudolf Arnheim
Saul Bass
Ludwig von Bertalanffy
John E. Burchard
Edmund Carpenter
Henry Dreyfuss
Heinz Von Foerster
Lawrence K. Frank
James J. Gibson
S. Giedion
J. P. Hodin
Abraham H. Maslow
P. A. Michelis
Rudolf Modley
C. Morris & F. Sciadini
Robert Osborn
Ad Reinhardt
Paul Riesman
Ernesto N. Rogers
Werner Schmalenbach

contrary, Burnham and others saw the best new art as a kind of organism, indivisible from other contemporary sign systems, open to "variables" (to use one of systems discourse's most cherished terms) or messages from the outside world, and no longer subject to linear models of historical development. As Burnham described its emergence, "a polarity is presently developing between the finite, unique work of high art, i.e., painting or sculpture, and conceptions which can loosely be termed 'unobjects,' these being either environmental or artifacts which resist prevailing critical analysis."[88]

Burnham's perspective on the art and technology nexus in the 1960s was wide ranging. He could deliver the most withering critiques of its spectacles: as noted in the introduction, he wrote punishing essays on E.A.T.'s infamous *9 Evenings* and LACMA's *A&T* program. In his role as a curator, his conception of what constituted the relationship between art and technology was expansive, in large part due to the systems perspective he was mining in the field of contemporary art. In writing on the *Software* exhibit, for example, he stressed that he made no distinction between art and nonart and that the show "did not represent a synthesis of art and advanced information-processing tech- nology."[89] "In just the past few years," he wrote in the catalog of that exhibition,

[t]he movement away from art objects has been precipitated by concerns within natural and man-made systems, processes, ecological relation- ships, and the philosophical-linguistic involvement of Conceptual Art. All of these interests deal with art which is transactional; they deal with underlying structures of communication or energy exchange instead of abstract appearances. For this reason, most of Software is aniconic; its images are usually secondary or instructional.[90]

Burnham's statement attests to the expansive and largely non- representational character of systems theory, given form in the con- temporary work of art's "transactional" dynamics. Its communicative or ecological dimensions effectively render the work "aniconic": without iconic reference or ostensible sign character and without the traditional "look" of painting or sculpture. Hence the checklist for *Software* might feature the usual batch of now-old-then-new-media experiments. Sonia Sheridan's *Interactive Paper Systems,* for instance, involved a

3M Thermofax machine—a primitive photocopier—exploited for purposes that might now seem like little more than water cooler high jinks. Participants could make prints of their hands and face through use of the machine.

It was this kind of art that earned exhibitions such as *Software* their hi-tech pedigree; and undoubtedly such then-spectacular effects were what drew the lion's share of attention in the popular press. But Burnham's thesis also accommodated Douglas Huebler's "Variable Pieces"—conceptual propositions that highlighted the temporal and spatial organization of its participants through linguistic documentation and the affectless look of newspaper photography, pieces that, in other words, bore little if no resemblance to the iconography of "tech" art. Should anyone miss the point, Huebler's catalog statement implicitly brought home the attractions of systems theory for a conceptual artist, emphasizing the autopoietic nature of the work, its interconnections to extra-aesthetic systems (namely, the perceiving subject) and the object's decidedly nonaesthetic quality. Huebler put it thus: "Reality does not lie beneath the surface of appearance. Everything looks like something: everything is accessible to the purposes of art. No thing possesses special status in the world: nor does man."[91]

"No thing possesses special status in the world." What statement could be at a greater remove from the Friedian mandate of presentness, to say little of a work of art that propelled *conviction?* Clearly, for Huebler, there is no singular thing that can inspire conviction, achieve presentness; and the "Variable Pieces" dramatize this sensibility in their decisive projection of the spatiotemporal coordinates of the artist and audience. Staged in the context of *Software,* Huebler's statement underscores the peculiar equivalence that obtains between bodies in systems discourse, a nonhierarchical relationship.

For Burnham's larger reading of contemporary art, that equivalence between bodies was also at work in the "anthropomorphic" tendencies attributed to modern sculpture. Anthropomorphizing art signaled the relationship between humans as organized complexities and other systems. In part, *Beyond Modern Sculpture* outlines an uncanny narrative of modern sculpture's history as progressively anthropomorphic. Including automata, kinetic art, the new field of "cyborg," and robot art, it points generally toward the potential meeting of art and artificial intelligence. Yet though Burnham identified

work that literally moved, aped the human body's range of motion, he was just as likely to describe nonobjective, static work as satisfying these system-based principles. Following both the Greenbergian and Friedian critique of presence within the new sculpture of the sixties— if to radically different purposes—Burnham too saw analogues to the anthropomorphic within minimalism. And so "Art and Objecthood," which had only appeared a short time before the publication of *Beyond Modern Sculpture,* served less as critique of such work than a means to diagnose its anthropomorphizing logic, providing a new vocabulary for such tendencies as they found their articulation in systems discourse. Citing Fried within the body of his text, Burnham wrote,

Since the creation of the first nonobjective and Constructivist sculptures in the early part of the twentieth century . . . [a]rtists have consistently denied the anthropomorphic and mimetic content of their works. Each successive generation of non-objective (or to use the most recent term: 'literalist') sculptors has accused the previous generation of anthropo-morphism. Even the present generation of Object sculptors do not escape this charge. (Fried, Summer, 1967, p. 19)[92]

There was, however, more to Burnham's attraction to the Friedian argument than the notion that minimalism was anthropomorphic, a system analogous to the human body. From Burnham's perspective, Fried's reading (and formalism more generally) itself paved the way for a systems-based account of the arts. It did so through taking the ideational out of the analysis of works of art, deemphasizing content, theme, and expression for structure, pattern, and organization. This is, to borrow Harold Bloom's formulation, a strong misreading if ever there was one: Burnham inverted Fried's stake in "objecthood" in the service of his stake in systems theory. Fried could only be horrified by the prospect. But the misreading is a productive one as well, as it claims turn around the matter of temporality. A passage is worth citing at length to understand the train of Burnham's thought:
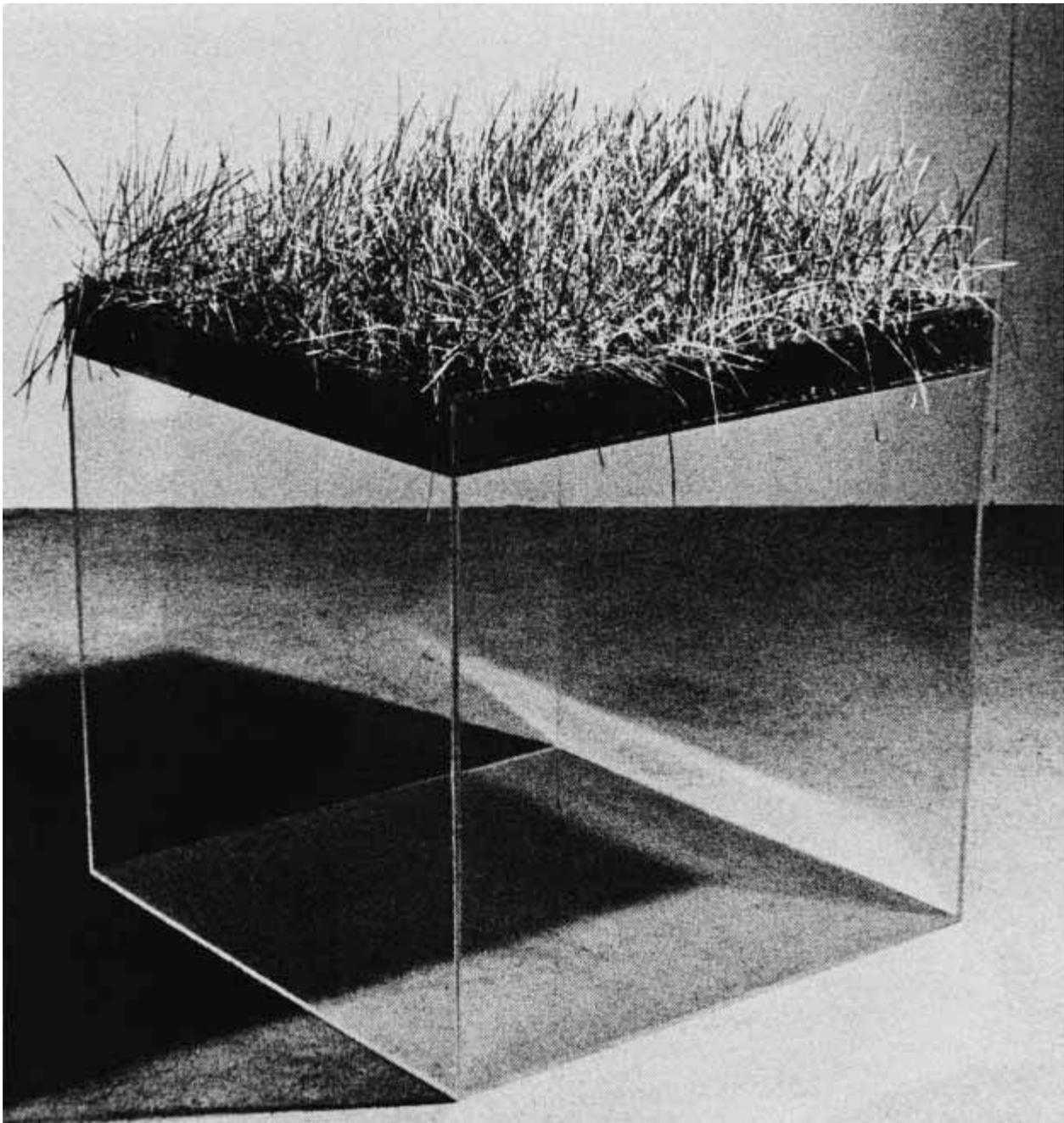
It is the peculiarly blind quality of historical change that we only grasp the nature of a political or cultural era after it has reached and passed its apogee of influence. Certainly the materialist properties of modernist sculpture have been evident to the thoughtful observer for more than

half a century. Yet the total awareness of what formalism implies has only been recently encapsulated into a single term "objecthood" by the critic Michael Fried. As the masks of idealism have dropped from sculpture, the process of inverse transusbstantiation completes itself: sculpture is no longer sculpture, but mechanistically an object composed of inanimate material. Still, if we are to obtain aesthetic and spiritual insight from contemporary sculpture, it must be achieved within the context of objecthood. Fried responds that sculpture must resist becoming theater in order to remain an independent art. Yet it is more probable that the acknowledged theatricality of present modes of static sculpture are preparatory steps toward the acceptance of a systems perspective.[93]

Not only did formalist criticism prompt new ways of engaging the work of art's medium, a medium that, in the context of Burnham's analysis, prefigures the very logic of that which would effectively over-take it. Rather, its self-reflective mode opened onto a self-generative logic: the recursive logic of autopoiesis. Burnham articulated the closing gap between artistic modes of production and the work of art's own self-reproduction:

They are theatrical not only in their implicit phenomenalism, but also in the sculptor's mock aloofness and objectivity toward the process of fabrication—which are, in fact, parodies of the industrialist "doing business." The shifting psychology of sculpture invention closely parallels the inversion taking place between technics and man: *as the craftsman slowly withdraws his personal feelings from the constructed object, the object gradually gains its independence from the human maker; in time it seeks a life of its own through self-reproduction.*[94]

When Burnham spoke to the "shifting psychology of sculpture invention" and its close parallel to "the inversion taking place between technics and man," he was giving voice to systems discourse. The *timeliness* of the minimalist object—its endlessness—permits that reading: for the new sculpture "in time seeks a life of its own through *self-production.*" Automatism, in other words, squares off with the autopoietic: ever expanding, ever generating, and so on.

METALOGICAL

Here, then, minimalist objecthood assumes a new contextual meaning: Fried's theatricality gets recoded as Burnham's systematicity. Objects, too, take on different readings. They are caught up in a dialogue between minimalist criticism and systems discourse. To illustrate this point, our final case study is *Grass Cube* (1967) a work by Hans Haacke (figure 1.4). A Plexiglas box, a few square feet, is set directly on the floor; on top rests a patch of grassy turf. It produces a strange visual disconnect at first, prompts readings of nature/culture confrontations. A cube is modeled in plastic, the medium of institutions, new technologies, new business, hygiene, and economy. It's hard, dumb, and empty that minimalist cube, quite literally vacuous. But with the addition of grass, it becomes an especially strange thing, a strange presence, even. That earthy earth, those unkempt blades—like a shock of tousled hair—might appear to sully the chill formalism of the minimalist box. Put in these terms, Haacke's gesture seems a violation. It's as if he dragged the formal purity of that box through the dirt.

In fact I want to suggest that the meeting of such media is less iconoclastic than systematic, less about confrontation than analogy. And time is what links those seemingly disconnected media together. In its stark simplicity, the cube tallies with the formal operations of minimalism; in using grass, it appeals to the thematization of time in process art or even the ideational principles of conceptual art. And that, too, suggests one the fundamental laws of systems theory: it's all part of a piece. Haacke's object plays upon the communicative contingency of all of these various art "systems"—the extent to which they are *indiscrete, permeable,* and *open* to one another. Systems analysis provides recourse to that discussion and recasts Fried's text as anticipating such developments, however unintentionally. It forces him into the dialogue.

But back to Haacke. Since 1963, Haacke had been producing art indebted to his own reading of von Bertalanffy, a tendency Burnham immediately seized upon in his work.[95] "The working premise is to think in terms of systems; the production of systems, the interference with and the exposure of existing systems," Haacke wrote about his conceptual gesture. "Such an approach is concerned with the operational structure of organizations, in which the transfer of information, energy and/or material occurs. Systems can be physical, biological or

social; they can be man-made, naturally existing, or a combination of any of the above."[96]

Haacke's well known "real-time systems"—works from the end of that decade and the early seventies—pay literal homage to his involvement with General System Theory and have likewise been considered with respect to Luhmann's social systems.[97] In his presentation of word and image, photographic and textual documentation, graphs and statistical data, Haacke's art spoke to its environmental, that is, institutional, underpinnings. So, for instance, his contribution to the Museum of Modern Art's 1970 exhibition *Information* could consist of little more than a visitors' poll: guests to the museum were solicited to cast ballots into Plexi boxes on "a question referring to a current sociopolitical issue."[98] (figure 1.5) The question, phrased as a double negative, addressed the political demographics of MoMA's audience and implicated the work of art in an ever-widening circle of external influences. In the neutral aesthetic of its sans-serif typography, Haacke's question to the poll read as follows: "Would the fact that Governor Rockefeller has not denounced President Nixon's Indochina policy be reason for you not to vote for him in November?"

The strategy would come to be known as "institutional critique," for it sought to highlight the range of institutional networks that accorded both meaning and value to works of art. It is a reading that lines up seamlessly with a systems approach to art making: it emphasizes the audience's (or observer's) role in the construction of the work of art, how the audience brings information to its production and how the object changes with the input of their perceptions *as* information.[99] And this is presented by Haacke as a democratic process, a social process—of casting ballots in an empty (perhaps minimalist?) box. Thus art is understood as a social system—social in the sense in which it literally internalizes the perceptions its audience brings to it and self-organizing in the sense described by second-order cybernetics. Far more reductively, Haacke would come to be known as a "political" artist: political in thematizing such issues as the "subject" of his practice. His systems approach, though, is as irreducible to the matter of content as it is to the matter of form. For *Grass Cube* is necessarily expansive in that regard, and it achieves its expansiveness, paradoxically, through the brilliant economy of the minimalist cube. Produced within a year of Larry Bell's *Memories of Mike* (1966–67)—the Plexiglas box that graced
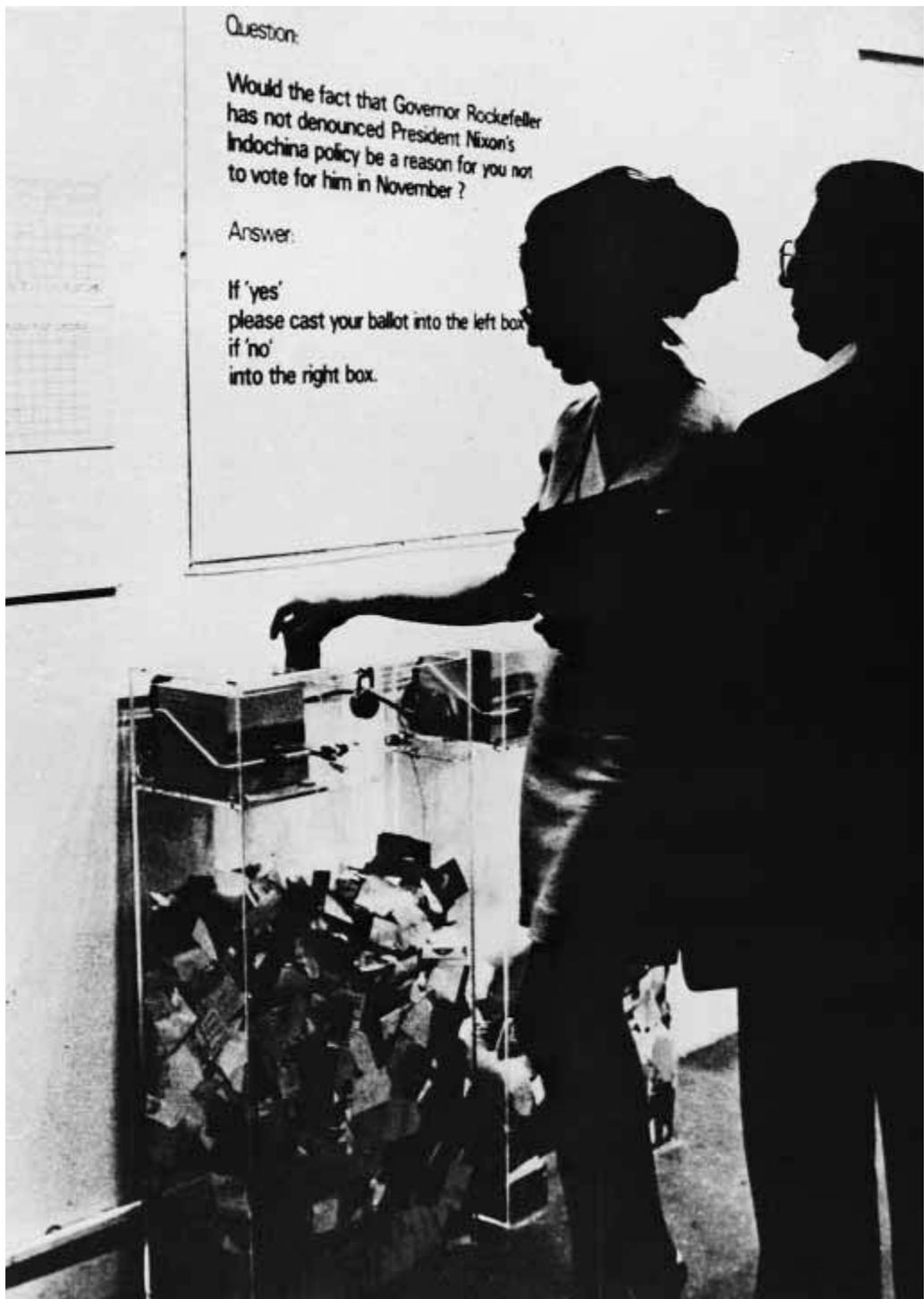
1.5 Hans Haacke, *MoMA Visitor's Poll,* 1970 © 2003 Artists Rights Society (ARS), New York/VG Bild-Kunst, Bonn.

Question:

Would the fact that Governor Rockefeller
has not denounced President Nixon's
Indochina policy be a reason for you not
to vote for him in November ?

Answer:

If 'yes'
please cast your ballot into the left box
if 'no'
into the right box.

the cover of *Artforum*'s special sculpture issue—*Grass Cube* does not
so much parody the formal vocabulary of minimalism as it uncovers
its recursive impulses. It fulfills the Friedian critique of time and
theatricality by turning the cube's "presence" into something literally
alive. If the minimalist box threatened to spill over into the real space
and time of its beholders as theatrical, Haacke allegorizes those terms
in stressing the environmental dimensions that underwrites that
relationship. A piece of sod, some grass make plain the work's
embeddedness in that environment. Its life depends on that environ-
ment and the various bodies that support it. Simply put, it grows. It
expands into its surround.

And what of that relationship to its surround? Benjamin Buchloh
has written of the semiotics of the square and its "stereometric rotation"
as a cube within the conceptual art of the mid-sixties. It was then that
LeWitt, Lawrence Weiner, Robert Barry, and Robert Morris produced so
many squares to reckon with. This was a moment, as Buchloh describes
it, when "a rigorous self-reflexiveness was bent on examining the
traditional boundaries of modernist sculptural objects to the extent that
a phenomenological reflection on viewing space was insistent on re-
incorporating architectural parameters into the conception of painting
and sculpture."[100] The cube would play a central role in that exploration,
reflexively signaling the spatial coordinates of its environment. The
white cube of the gallery would contain yet another cube within, thus
nesting within its interior space a demonstration of its own organiza-
tional complexity. Point to point and plane to plane, the boxes would
line up. Like the girl on the Morton salt box, her image ever collapsing
into itself as a *mise en abyme,* Buchloh describes such operations
through the structural mechanics of tautology. *Grass Cube* is such a
tautology, but it goes even further than that. Not only does it reflect
upon its environment as a transparent box; it seems to *mediate* a dia-
logue between minimalist criticism and systems discourse, a mediation
on the self-productive and temporal character of medium itself.

Not only a tautology, then, but something which admits to its
recursive temporality: this structure is akin to what Bateson has called a
"metalogue"—a dialogue on a dialogue.[101] Introducing the first section
of his influential volume of collected essays, *Steps to an Ecology of Mind,*
Bateson described a metalogue as "a conversation about some
problematic subject. This conversation should be such that not only do

the participants discuss the problem but the structure of the conversation as a whole is also relevant to the same subject." *Grass Cube* is metalogical. It's a self-generating dialogue about self-generation: about the recursive, autopoietic relationship between media and the environment. Grass and Plexi are two sides of the same coin. They are parties to a conversation about time and media through the work's expansion in the gallery.

It is, perhaps, some version of this metalogical sensibility that converges most significantly with Friedian theatricality, that shuddering expansion ever outward, that endless presence in time. For that dialogue might devolve into inexhaustible chatter, might resonate and echo if never to resolve itself—a kind of no exit to history that some might damn with faint praise as postmodern.[102] We'll get to this question in due course, but for now the legacy of Friedian presentness will haunt our discussion on time and technology in the art of the 1960s, no matter how distant from the minimalism he so criticized or the modernist works he so respected. Chronophobic for some, liberatory for others, the stakes will be high indeed. Grace may not be forthcoming after all, for redemption is hardly possible without an end.

Begin the begin.