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Hats off, Galileo: Early Richard Serra

By

Anne Elizabeth Byrd

A dissertation submitted in partial satisfaction of the

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of the

UNIVERSITY OF CALIFORNIA, BERKELEY

Committee in charge:

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by

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Abstract

Hats off, Galileo: Early Richard Serra

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Doctor of Philosophy in History of Art

University of California, Berkeley

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This dissertation examines the first decade of Richard Serra's career, beginning with the European travels that followed his graduation with a Masters of Fine Arts from Yale and continuing through the mid-1970s. This period is especially interesting because it was during these years that Serra initiated the sculptural practice for which he is now best known, yet he was not so single-mindedly devoted to it as he would become – he was also very actively involved in the production of film, video, photo essays, conceptual proposals, and occasional ephemeral works. This dissertation studies these projects in conjunction with Serra's sculpture, arguing that they are in some respects parallel investigations, and arguing further that it therefore becomes necessary to find language that allows us to address the possibility that Serra's sculpture has some kind of content – whether psychological, political, or philosophical – despite the artist's assiduous avoidance of representation.

I begin with a discussion of Serra's movement into "process art." Tracing a line through the visually very dissimilar sculptures that Serra made just prior to his process works, I argue that the tendency of Serra's earliest sculpture to privilege logical contradiction and perversity sets it apart from contemporary minimalist literalism, and opens it up to models of meaning found in the writings of the philosopher Alfred North Whitehead and the psychologically-minded art educator Anton Erhrenzweig, both of whom Serra was reading at the time. Then I turn to Serra's Props, lead sculptures propped up with no fixed joints that have often prompted viewers to focus on their threatening aspects. Tying these sculptures to works in other media that took the Vietnam War and Cold War technocratic theories as their materials, I argue that the Props did not simply (literally) *enact* violence but communicate *about* it. Finally I address the earliest

of Serra's large-scale steel sculptures and landscape works, tying them to contemporaneous films, photo projects, and videos in order to argue that Serra's approach to sculpture here, while very much focused on embodiment, is more mediated by the mechanical image than has previously been acknowledged.

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Hats off Galileo: Early Richard Serra Introduction

This dissertation focuses on the early work of Richard Serra – the sculpture, film, video, and ephemeral works that he made from the mid-1960s to the mid-1970s, or from the end of his student years (he received a Masters of Fine Arts from Yale University in 1964) through his earliest "sited" works, the landscape sculpture that he made in the early-to-mid seventies. The period is in need of study for a number of reasons. The simplest reason is that there is no thorough account of these years: Harriet Senie's *The Tilted Arc Controversy* is the only monograph on the artist's work; otherwise, the literature consists entirely of catalog essays, articles, and book chapters. Among these there are only two essays, both by Benjamin H.D. Buchloh, that concentrate on the early work – and each these of focuses on a fairly narrow selection of sculpture and film. The nearest thing to a survey of the early work comes in Rosalind Krauss's "Richard Serra: Sculpture," the catalog essay that she wrote for the artist's first retrospective at the Museum of Modern Art in New York – but while a remarkable piece of writing it is brief and only partially dedicated to Serra's early work.

The second – ultimately more interesting – reason is that this period of Serra's work poses a number of questions regarding the way abstract sculpture might signify, even as it maintains abstraction as a priority. Serra's sculpture may not seem to be the most promising ground on which to discuss questions of meaning: it is a critical commonplace that Serra is an absolute literalist, intent on actual physical processes, the concrete properties of materials, and the real physical occupation of space (the first two chapters of this dissertation will discuss individual literalist readings of Serra's work in some detail). For Serra's advocates – most of whom view his work through the lens of minimalism – literalism is a central strength of his work. Many of his detractors (again, we will hear from specific ones in Chapter 2) concur that literalism is a central fact of his work, but they value it much less.

Relationships to history or non-sculptural forms and ideas may seem difficult to establish too because of the extent to which Serra's career has been understood to be built

¹ Harriet F. Senie, *The* Tilted Arc *Controversy: Dangerous Precedent?* (Minneapolis, Minnesota, 2002).

² Benjamin H.D. Buchloh, "Process Sculpture and Film in the Work of Richard Serra," in *Richard Serra* (The October Files) (Cambridge: Massachusetts, 2000), p. 1-20, originally published in 1978; and "Richard Serra's Early Work: Sculpture between Labor and Spectacle, in *Richard Serra Sculpture: Forty Years* (New York: Museum of Modern Art, 2007), 43-60.

³ Reprinted in *Richard Serra* (The October Files), p. 99-146.

on steady, incremental changes to the physical facts of his output, changes intended to increase spatial and formal complexity. Even during the early years that are the primary focus here the formal concerns of Serra's sculpture were quite concentrated. *One-Ton Prop* – the first work that Serra considered *sculpture* as such – dates to 1969. It did not take long from there to initiate the structural vocabulary that Serra continues to develop even today: it was less than a year before he began conceiving *Strike*: *To Roberta and Rudy* (1969-71) [Fig. 3.6], a single, factory-bought steel plate wedged into the gallery corner. *Strike* initiated a sculptural vocabulary that Serra has explored rigorously and consistently (though not exclusively), making incremental changes in an effort to increase spatial and formal complexity. He went on to multiply the number of plates, as in *Circuit* (1972) [Fig. 3.7], and then to have them hot-rolled to his specifications and sited in the landscape (*Pulitzer Piece* [1970-71]) [Fig. 3.3] and in urban environments (*Sight Point: For Leo Castelli* [1972-75]).

This step-by-step elaboration has continued beyond the years that are this project's main focus. Serra began to curve his plates into arcs – in St John's Rotary Arc (1980), for example – then tilted the arc, emphasizing the experiential difference between its convex and concave sides (*Tilted Arc* [1981] was the primary example here. For roughly a decade and a half- from Clara-Clara (1983) through works such as Snake (1994-97) – he worked through different permutations of conical sections, curving planes whose radii differ at top and bottom and that could, Serra hoped, "envelop the whole space, and both lean in and out simultaneously." In 1996 Serra made *Torqued Ellipse I* and Torqued Ellipse II by taking an elliptical form and twisting it in two directions at once. He has largely left the ellipses behind, but he has continued to explore the technique of torquing on spirals, toruses, and (in recent years) increasingly labyrinthine forms. The torqued steel works, Serra told Michael Govan and Lynne Cooke, emerged "logically" out of his work on conical sections; not only do the forms lean in and out at once, but their ambulatory viewers continually encounters situations in which, without warning, out becomes in and in, out. 5 Strike and the torqued steel works may provide radically different spatial experiences, but it is easy to trace a trajectory from one to the other that appears to follow an internal formal logic. Looking back, that logic has seemed to have unfolded so consistently, and for so long, that is would be easy to conclude that it is the sole driving force in the work, and that it has operated more or less unbroken since One-Ton Prop. Such, essentially, would be Serra's claim, particularly in recent years, when he has repeated the phrase "work comes out of work" almost as if it were a mantra.⁶

⁴ Lynne Cooke and Michael Govan, "Interview with Richard Serra," in *Richard Serra: Torqued Ellipses* (New York: Dia Center for the Arts, 1997), p. 11.

⁵ Lynne Cooke and Michael Govan, "Interview with Richard Serra," in *Richard Serra: Torqued Ellipses* (New York: Dia Center for the Arts, 1997), p. 11.

⁶ The earliest version of this statement on record seems to have been uttered in a 1976 interview with Liza Bear: what making sculpture meant to him, he told her, was "to follow the direction of the work I opened up early on for myself and try to make the most abstract moves within that...To work out of my own work" ("Sight Point '71-75/Delineator '74-76," in Richard Serra: Writings/Interviews, p. 35). In 2007, Kynaston McShine, one of the curators of Serra's second retrospective at the Museum of Modern Art that year, asked Serra how he thought his work would develop after the exhibition.

I want to resist letting Serra's logic run away with itself. It makes sense that an artist, looking back on his earlier works, would conclude that those parts of it that had continued to be productive for him were important, and that everything else was not. For an observer of Serra's work to adopt these principles, however, is to exclude much too much. This is especially true for the first phase of sculptural production I have outlined here, when Serra was both enormously productive and extremely diverse in his pursuits. The nature of his abstraction during this period will be a point of focus here not because the abstract aspects of his early work might be made to point at what came later, but because he did so much that was *not* abstract, at least not in any simple sense. His first solo show – at Galleria La Salita in Rome during the spring of 1966 – was an installation of taxidermy, live animals, and "habitats" vaguely reminiscent of the bases Constantin Brancusi made for his sculpture. When Serra arrived in New York later that same year much of his work involved casts and templates of real objects drawn from lower Manhattan, where he lived. He proposed to drop molten lead out of an airplane, and described the imagined result as (among other things) a bomb [Fig 2.19]. His most famous films and videos focus closely enough on process that they are probably best described as being abstract – Hand Catching Lead (1968) and Boomerang (1974) are good examples in film and video respectively – but he also made films and videos, several of whose scripts were based on game theory or other technocratic tools of the military industrial complex, which were decidedly narrative or even allegorical in character. Serra does not quite disavow this work – he was willing to discuss it for this project – but does tend to be dismissive towards it.

What you have to understand – most of the stuff we're talking about today was done in a totally different spirit than anything I've done subsequently. The first ten years of being in New York [Serra arrived in 1966] was very, very different—as you develop and move into your own body of work – very, very different. As your work becomes more directed towards certain aspects, although you try to maintain a certain type of playful activity, the broader notion of where you're going to play – the field – I think this

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[&]quot;I'm going to follow what I've done here," Serra said; "Work comes out of work, and I'm just going to go on working." See Kynaston McShine, "A Conversation about Work with Richard Serra," in *Richard Serra Sculpture: 40 Years*, p. 40. By the time of that exhibition the phrase had become a kind of explanatory shorthand, which Serra used on Charlie Rose (see the episode from June 5, 2007:

http://www.charlierose.com/view/interview/8534), and as an exhibition title, *Richard Serra: Drawings – Work Comes out of Work*, for a 2008 exhibition at the Kunsthaus Bregrenz.

⁷ He wanted to keep the resulting sculpture, not cause destruction, so the proposal included the note that the lead would have to be dropped over water or mud.

⁸ Serra's attitude towards this material was complex: he expressed deep fascination and intellectual engagement with the game theory problem the Prisoner's Dilemma in particular, and none of the works that touch on Vietnam or the Cold War more broadly can be described as straightforward protests. One of my main objectives in Chapter Two of this dissertation is to characterize Serra's use of these ideas,

happens to everybody – starts narrowing. At one point I decided I was really interested in, quote, sculpture.⁹

This dissertation contests Serra's notion that this broader field can be segregated from his more purely sculptural project. Pointing out that Serra's interest in "quote, sculpture" began before the "narrowing" he spoke of took place, it argues that the nature and contents of the field out of which that project narrowed are important because the sculpture Serra made during this more aesthetically freewheeling period is in dialog with his contemporaneous works in other media.

The point of view in this project comes very much from looking back from the early twenty-first century. During the late eighties and through the nineties much of the writing on Serra focused on the highly publicized controversy over the fate of *Tilted Arc*, the sculpture he had installed in Federal Plaza in 1981. Writings on Serra that were produced during or in the aftermath of the *Tilted Arc* controversy tend to emphasize Serra's interventions in real space. This is understandable focus, since the sculpture's literal obstruction of Federal Plaza became such a topic of debate – and because it rooted Serra's sculpture so clearly in a minimalist discourse of presentness and the here-and-now that was by then very well established. Looking back on Serra's early work through this lens has tended to reinforce Serra's assertion that his sculpture has progressed towards ever-greater abstraction and literalism. The *Torqued Ellipses* provide a rather different vantage point, and prompt different questions. These sculptures (and the others that Serra has made in torqued steel) are literal, definite objects, and yet have moments of

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⁹ Author's conversation with the artist, July 8, 2009.

¹⁰ Tilted Arc, a 120-foot long, twelve-foot high Cor-Ten steel sculpture, was installed by the General Services Administration in New York's Federal Plaza in 1981. It was almost immediately subject to intense criticism – in the New York Times Grace Glueck called it "an awkward, bullying piece that may conceivably be the ugliest outdoor work of art in the city" (August 7, 1981) – and some administrators in the plaza began lobbying for the sculpture's removal. The campaign languished for a few years but was revived in 1984 by the William Diamond, the Regional Administrator for the GSA's New York offices. A year later Diamond hand-picked a five-person panel to decide on the matter of the sculpture's relocation, selecting two of his own employees and appointing himself chair. Serra argued that the government, having purchased *Tilted Arc*, was not free to destroy it. "I want to make it perfectly clear," he informed the GSA shortly before the hearing, "that Tilted Arc was commissioned and designed for one particular site: Federal Plaza. It is a site-specific work and as such not to be relocated. To remove the work is to destroy the work." After a two-day hearing, the panel voted 4-1 to remove the sculpture from the plaza. Serra challenged the decision in court twice, but on March 15, 1989, the sculpture was taken down. For Serra's statement here see Letter from Richard Serra to Donald Thalacker, Director, Art-in-Architecture Program, General Services Administration, Washington, DC, in Clara Weyergraf-Serra and Martha Buskirk, eds., The Destruction of Tilted Arc: Documents (Cambridge, Massachusetts: MIT Press, 1991, p. 37. Wevergraf-Serra and Buskirk's collection of documents also contains a chronology of the sculpture's commission, installation, and later fate; see p. 1-2. Excellent accounts of the sculpture's installation and removal appear in CRIMP, DEUTSCH AND KWAN REFS.

illusion. Leading up to the 2005 opening of the Guggenheim Bilbao's *The Matter of Time* – then and now the largest permanent installation of Serra's sculpture – Serra and Hal Foster discussed this problem at some length and left it unresolved in interesting ways.

RS: I don't know what one can deduce from walking around inside a [torqued] Spiral, not the plan or the elevation, maybe not even the space. Yet the relationships don't seem to be arbitrary. They're just brought to bear psychologically on the viewer in a more intense way than in earlier pieces.

HF: What made you open to this psychological dimension? Again, that once seemed to be viewed with suspicion.

RS: You mean by me personally? I came up with Smithson, Nauman, and Hesse, and we never bought into that part of the Minimalist dogma. But I've never written anything against that kind of psychological interpretation.

HF: OK, but that dimension is much stronger now than ever before in your work.

RS: Maybe it was always there, subliminally, but never much talked about. Is it there, for example, in *Delineator*, the piece with the steel plate beneath you on the floor and one on the ceiling?

HF: Yes, but that is a physical threat more than a psychological effect. The affective dimension of the Ellipses and Spirals is quite different... In earlier pieces an emotive response was always kept in check by a rational reception – the will to work out the formal logic. Has that changed? **RS:** No. Finally the work is more responsive to its form-making than to anything else. It has to be inventive as form first; if it's not, it's not going to function in any of these other ways, which are attributes. ¹¹

Foster was right to be skeptical: with the possible exception of the Prop pieces (the subject of this dissertation's second chapter) Serra's earlier work has little of the torqued steel sculpture's psychological intensity. On previous occasions, moreover, Serra *had* spoken forcefully against interpretations that tie the meaning of a work to its maker's psyche¹² – so in his 2004 claim to be open to psychological readings, much hinged on what he meant by not objecting to "that kind of psychological interpretation." The psychological responses he was receptive to, it would seem, emerged through the viewer's encounter with the basic physical facts of the work, and his or her ability (or inability) to process these rationally. But something interesting happens in the conversation between artist and art historian. One moment Serra was compelled enough

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¹¹ Foster, "Richard Serra in Conversation with Hal Foster," p. 39.

¹² "I have great difficulty with spurious psychological interpretations," he told Peter Eisenmann. "One's psychological makeup at a given moment is developed from the womb on; and one's activity at a given moment is an intersection of congruences that will vent certain emotions. But to say that works are the result of an emotional state is to use a knee-jerk causality that simply does not follow." [Peter Eisenman, "Interview by Peter Eisenman," *Richard Serra: Writings/Interviews*, p. 148].

by those psychological responses to wish to root them in the beginning of his work, but as soon as Foster asked if they had assumed the that priority Serra had formerly given to "a rational reception – the will to work out the formal logic," Serra dismissed emotive responses as "attributes."

In many respects, this dissertation is about those attributes. It is about the psychological address of the earliest work and the way that address – while being, it is true, far less intense than the address of the torqued steel works – opens Serra's work up to meaning and reference more broadly. It is about the Prop pieces, Vietnam, and the Cold War. It is about the landscape sculpture and the effects of photographic mediation on perception. It is not only about the secondary effects themselves, however, but the ways in which Serra's sculpture, as a function of the form, physicality, and process that *are* Serra's primary concerns, produces those effects.

Of necessity, dealing with these matters means adopting a secondary subject of my own: writing about Serra during these years means writing about the nature and status of literalism in 1960s sculpture. This is a matter that has come up for some revision in recent years – for example in David Raskin's writings on Donald Judd. Serra has himself written and said a good deal about how his work is meant to be completely self-referential and self-sufficient, divorced from its physical and discursive surroundings (even when knitted to them formally, as in the landscape and other site-specific works). His example may not seem as readily up for revision as Judd's, whose "uncanny materiality" Robert Smithson noted as early as 1965. Looking more closely at Serra's earliest writings – and this will be one of the main burdens of the chapters that follow – it becomes apparent that Serra's claims to be literalist are often ambiguous. He continually looks for ways that his sculpture might be completely self-referential and yet have some kind of contradictory remainder. This kind of counterfactual address seems to me a tremendously important part of his art.

Because I am interested largely in mining the ambiguous status of Serra's art and thought – and by extension the ambiguous status of literalism in the late 1960s – I provide very close readings of Serra's writings in what follows, and tie them to similarly attentive readings of the texts that he draws on in his writings and statements. I also work closely with the writings of some of the art historians most closely associated with him – especially Rosalind Krauss, Hal Foster, and Yve-Alain Bois – because it is they who lay out in the clearest terms the literalist argument that I wish to complicate.

The first chapter addresses Serra's transition from painting to sculpture and the development of process art. As mentioned previously, Serra scholarship (like the artist himself) tends to treat this as a highly logical development, one in which the sculptor develops a critical position in a clear dialectical relationship to minimalism and reinforces the anti-psychological, anti-literalist attitude that is one of that "movement's" only true unifying characteristics. Looking at the work that leads up to process art, however, what is apparent is Serra's dedication to the *il*logical and perverse. This perversity is thematic and somewhat adolescent at the beginning – a series of overly deliberate statements made

¹³ David Raskin, The Shiny Illusionism of Krauss and Judd," *Art Journal* 65.1 (Spring 2006): 6-21.

¹⁴ Robert Smithson, "Donald Judd," in Jack Flam, Ed., *Robert Smithson: Writings and Interviews* (Berkeley: University of California Press, 1996), p. 4-6,

via collage and inharmonious variations on traditional composition – but increasingly begins to be something that Serra draws out of his materials, ultimately using their capacity for perverse and unexpected behaviors to structure the viewer's experience.

It is perhaps in the Props that Serra began making in 1968-69 that Serra maximizes this capacity in the most compelling manner; these works are the focus of Chapter Two, along with the charge – first levied at the Props but sharpened during the *Tilted Arc* controversy and still resonating in the discussion of the more recent torqued steel sculptures – that Serra's work is violent, aggressive, threatening, and controlling. Putting these sculptures in dialogue with films, videos, and conceptual proposals that Serra made at the end of the 1960s and into the early 1970s, the chapter argues that with these works Serra was not simply *being* aggressive but giving form, in quite specific ways, to ideologies of Cold War aggression – making them palpable, along with some of their internal contradictions.

The third chapter focuses on the sculptures in which Serra opened up a "behavioral space" intended for an ambulatory viewer, one that is intended to substitute for abstract constructions of space (Renaissance perspective especially) with the ambiguities of direct, immediate experiences. This experience has, rightly enough, been approached in phenomenological terms. I further argue, however, that the embedded experience of viewing that Serra develops through his "behavioral space" was, additionally, mobilized in relation to image technologies and the ideologies that undergird them.

Chapter 1 Towards Process

1. Against postminimalism

Serra arrived in New York City in the autumn of 1966. In the preceding years minimalist polemics by Donald Judd and Robert Morris, though in many ways at odds with each other, had largely set the bar for "advanced" thinking about art: artworks should be empirical, self-sufficient, and logical; the structural decisions behind them should arise for good clear reasons, not out of subjective sensibilities regarding composition; illusion, allusion, and any other form of reference should be rigorously excluded.¹⁵

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I should note that minimalist polemics do not necessarily match up perfectly to minimalist artworks – especially, perhaps, on the issue of literalism. There is a growing body of literature that builds on Smithson's 1966 remarks on the "uncanny materiality" of Judd's sculpture; meanwhile, Morris and others have acknowledged that the felt sculptures with which he first countered minimalism have distinct bodily references. I am not arguing, against this literature, that Judd and Morris made absolutely literalist sculptures. Their arguments have, however, shaped the art-historical discussion of 1960s sculpture as much or more than their artwork, and Serra's works need to be teased out from this discourse no less than Judd's and Morris's own. On Judd see Smithson, "Donald Judd," in Jack Flam, Ed., *Robert Smithson: Writings and Interviews* [Berkeley: University of California Press, 1996], p. 4-6, Krauss, "Allusion and Illusion in Donald Judd," *Artforum* 4, no. 9 (May 1966); Briony Fer, "Judd's Specific Objects," in *On Abstract Art* (New Haven and London: Yale University Press, 1997), p. 131-51; Alex

¹⁵ Judd, "Specific Objects," in *Complete Writings 1959-1975: Gallery Reviews, Book Reviews, Articles, Letters to the Editor, Reports, Statements, Complaints* (Halifax: Nova Scotia College of Art and Design, 1975), p. 181-198, originally published in *Arts Yearbook 8*, 1965; Morris, "Notes on Sculpture Parts I and II" in *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge, Massachusetts: MIT Press, 1995), p. 1-22, originally published in *Artforum*, February and October 1966. The emphasis on "literalism" comes from Michael Fried's 1967 "Art and Objecthood," – a feverishly dissenting argument that testifies, among other things, to the force that then seemed necessary in order to counter the dominance of Judd's and Morris's arguments. In Fried, *Art and Objecthood: Essays and Reviews* (Chicago and London: The University of Chicago Press, 1998), p. 148-172, originally published in

Not long after Serra's arrival in New York, minimalism began to be pushed, pulled, critiqued, and, again, "advanced" – largely from within its own ranks. Of all of those critics – one might cite Lucy R. Lippard, Robert Smithson, or Dan Graham – Morris himself has arguably been the most influential, especially with respect to the role of process in art. Minimalism's geometric clarity would be fine, he argued in the 1968 *Artforum* essay "Anti Form," but for one major problem: "any order for multiple units is an imposed one that has no inherent relation to the physicality of the existing units"; thus such orders can only be conceived *a priori*, in an idealist realm outside of direct experience. Better that the artist work with malleable materials and allow gravity to have its way with them, as Morris did in the felt works he began making in 1967. "Considerations of ordering are necessarily casual and imprecise and unemphasized. Random piling, loose stacking, hanging, give passing form to the material....Disengagement with preconceived enduring forms and orders for things is a positive assertion." ¹⁷ Rather than on forms and orders, the focus would be on *process*.

Morris did not define "process art" as a movement –the word "process" appears in his essays only as a noun, never as an adjective modifying "art" – but he did describe a tendency. That description was quickly institutionalized when he made that tendency the organizing principle for 9 at Castelli, an exhibition he curated that opened in December 1968, and even more so when the Whitney Museum followed suit six months later in the exhibition Anti-Illusion: Procedures/Materials. Before long "process" had become pervasive enough that artists might feel restricted by it— Eva Hesse, a participant in both exhibitions, described "process" as "the mold I felt I was going to be put in." Serra,

Potts, "Objects and Spaces" in *The Sculptural Imagination: Figurative, Modernist, Minimalist* (New Haven and London: Yale University Pres, 2000), p. 269-310; James Meyer, "The Minimal Unconscious," *October* 130, Fall 2009, p. 141-176. On Morris see Pepe Karmel, "Robert Morris: Formal Disclosures" (Interview), *Art in America* 83, no. 6; (May 1995), p. 88-95, 117, 119; Rosalind Krauss and Thomas Krens, *Robert Morris: The Mind/Body Problem* (New York: Guggenheim Museum Publications, 1994).

¹⁶ See Robert Morris, "Anti Form," in *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge, Massachusetts: MIT Press, 1995), p. 41, originally published in *Artforum* April 1968.

¹⁷ Robert Morris, "Anti Form," p. 46.

¹⁸ Cindy Nemser, "A Conversation with Eva Hesse," in Mignon Nixon, ed., *Eva Hesse* (October Files) (Cambridge, Massachusetts: MIT Press, 2002), p. 20. A slightly different version of their conversation was published in *Artforum* 8, no. 9 (May 1970). "I don't really understand it. Everything is process and the making of my work is very interesting, but I never thought of it as 'now I am rolling, now I am scraping, now I am putting on the rubber.' I never thought of it for any other reason than the process was necessary to get to where I was going to get to." A key point in this chapter is that responses to Serra's process art have been too driven by Morris's writings; analogously, Hesse's concerns about being put in the process mold have been borne out as her work has been conscripted to offer evidence about Serra. "The logic of process that had led Serra to turn to film as a way of manifesting a pure operation on a physical material was also a way of opposing the rigid geometries of minimalist sculpture in which a viewer was presented with an object whose construction was a closed system, secreted away within the interior

who also made work for both shows, was decidedly more comfortable with the term. Titles such as *Tearing Lead from 1:00 to 1:47* (1968) [Fig. 1.1] declare openly that the procedure and the material are centrally important; the title *Splashing* [Fig 1.2] (also 1968) focuses attention even more narrowly on the action being performed. Serra's textual artwork *Verb List* (1967-68) [Fig 1.3] is, however, the most explicit of all about the importance of process and action. As its title suggests, the work is a list. Most of its items are infinitive verbs ("to roll," it begins, "to crease, to fold, to store, to bend, to shorten, to twist..."), though it also includes a number of prepositional phrases ("of mapping, of location, of context, of time, of carbonization"). All in all, it contains one hundred and eight items, each naming or implying processes that might be enacted on an unnamed material in order to produce a work of art.

Verb List is a kind of manifesto, a declaration that action can provide the fundamental ground for a work of art. Through the sheer proliferation of its items it seems enthusiastically to proclaim of how productive this idea might be: Serra has said that he never intended to act out every verb he summoned, and his list has the feel of a brainstorming session rather than a catalog (indeed, the work's generative energies are announced out right: the final entry is "to continue"). The list also announces a good deal of ambition for process-based sculpture: given that Serra's primary materials at the time were rubber and lead, entries such as "to roll," "to bend," and "to scatter" are straightforward enough, but forming materials so that they speak "of location," "of context," and "of time" requires more of the artist – he has to seek the work out, not just enact an equation (verb + noun = art, process + material = sculpture, et cetera). Verb List, Serra told Gary Garrels, "gave me a subtext for my experiments with materials. The problem I was trying to resolve in my early work was: how do you apply an activity or a process to a material and arrive at a form that refers back to its making?" 20

One of the driving forces behind this dissertation is the troubling question of what process was *for*. This is not to say the problem that Serra presented to Garrels did not seem compelling – on the contrary. Rather, that one problem simply led to another: if you engage in an attempt to "apply an activity or a process to a material and arrive at a form that refers back to its making," what is at stake in that effort? If you succeed, what is the effect of the results?

The part of this feeling that stemmed from dissatisfaction rather than inquisitiveness had its roots in the tendency for readings of *Verb List* – and of Serra's

of the object, invisible and remote. For this reason process artists like Eva Hesse had turned to materials like latex or fiberglass or clay, materials that would yield to the imprint of the action applied to them, and carry that on their surface as their only mark of structure." See Rosalind Krauss, "Richard Serra: Sculpture," in *Richard Serra: The October Files* (Cambridge, Massachusetts: MIT Press, 2000), p. 102. Originally published in *Richard Serra/Sculpture* (New York: The Museum of Modern Art), 1986.

19 Whether or not Serra intended to execute all of the list's items was a point of discussion in the author's conversation with the artist, July 8, 2009 – he said that executing every verb sounded more like something Sol LeWitt would do.

²⁰ Gary Garrels, "An Interview with Richard Serra," in Bernice Rose, Michelle White, and Garrels, eds., *Richard Serra Drawing: A Retrospective* (New Haven: Yale University Press and The Menil Collection, Houston, 2010), p. 66.

process art more generally – to attribute to it an overly mechanical generative force. In her landmark study *Passages in Modern Sculpture* (1977), for example, Rosalind Krauss wrote "those verbs are themselves the generators of art forms: they are like machines which, set in motion, are capable of constructing a work." It is as if the *Verb List* were the source of Serra's sculpture, not an aid for thinking and talking about the medium. Similarly, in Benjamin Buchloh's telling, the verbs provide a perfectly logical analysis of Serra's sculpture.

A whole group of early works (in fact all sculptures prior to the "prop" pieces) corresponds to this catalog of possible manipulations of sculptural material. In each case one activity determined the form and appearance of the sculpture...Such a systematic differentiation is performed on all the various elements that go into the making of sculpture – subjective activity and decision, physical work, objective materials and their specific properties, physical laws concerning matter in the space-time continuum. This leads, in Serra's process sculptures and early films, to an analytical exposition, endowing these elements with rational transparency.²²

Even writers who are more skeptical of linguistic analysis of artwork, such as Thomas Crow, have granted the language of *Verb List* a tremendous amount of productive power.

On his way to the United States in 1966, he shifted his concerns away from [a] rustic Italian repertoire to the more abstract, linguistic coordinates favored in New York circles. He wrote out and meditated on a long list of verbs that might conceivably generate works of sculpture; the number of infinitives runs to 108: "to roll, to crease, to fold, to store, to bend, ... to tear, to chip, to split, to cut, to sever, to open, to mix, to splash..." and so on. New Yorkers witnessed a spectacular manifestation of the last verb at the very end of 1968. In a warehouse on the fringes of Harlem, Serra created *Splashing* by standing in the cavernous space and hurling molten lead at the corner of the wall and the floor, his face masked like a soldier against the poisonous fumes. The result of repeating this operation yielded the cumulative sculpture *Casting*, elemental imprints of the original verbal imperative.²³

Process sculpture, in these tellings, is a kind of bastard offspring. To Crow's assessment that the works themselves are "elemental imprints of the original verbal imperative," we might add Hal Foster's assessment that *Casting* (1969) [Fig. 1.4] "is paradigmatic of

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²¹ Krauss, *Passages in Modern Sculpture* (Cambridge, Massachusetts: 1977), p. 276.

²² Benjamin H.D. Buchloh, "Process Sculpture and Film in the Work of Richard Serra," in Hal Foster and Gordon Hughes, eds. *Richard Serra* (October Files) (Cambridge, Massachusetts: MIT Press, 2000), p. 7-9. Originally published in *Richard Serra: Works* '66-'77 (Tübingen: Kunsthalle, 1978).

²³ Thomas Crow, *The Rise of the Sixties: American and European Art in the Era of Dissent* (New Haven: Yale University Press, 1996), p. 164.

Process art, for here the process became the product without remainder," and, to turn to a different text by Krauss, her view that Serra's sculpture is "all cause and no perceivable effect." ²⁴

The insistence on *Verb List*'s logic is consistent with an understanding of Serra as a postminimalist – as a literalist who, finding that reference had snuck in the back door of minimalism, moved into the purer realm of process. Writings Serra produced at the time, however, suggest that while he did indeed – in *Anti-Illusion* curator Marcia Tucker's words – avoid "illusion, representation and especially construction in order to concentrate on *what is being done*," he did not conceive "what was being done" in such purist terms.²⁵

"We experience more than we can analyse" (A.N. Whitehead).
"Sensibility is inclusive and precedes analytic awareness" (Anonymous).
In San Francisco they say, "Flash on it."

There is no general rule as to which formal properties suffice to determine the structure of a relation. I have chosen the structure of a relation. I have chosen certain conditions (rules that I have made up) that reveal themselves in the logic of the procedure.²⁶

So began the final section of Serra's first published essay. The section as a whole is a brief four paragraphs, including the three-part epigraph. Taken at face value, these quotations (assuming that Serra himself is not "Anonymous" and that the second statement is indeed a quote) seem to caution against being too cerebral in response to artworks: the viewer should come to them intuitively, bringing all of her sensibility to the task; dissecting the work is always an inferior and secondary operation. This first reading is certainly consistent with things Serra has said elsewhere, and seems adequate enough on its own.²⁷ It is the sentence drawn from the English mathematician and philosopher

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²⁴ Hal Foster, "1969," in Foster, Krauss, Yve-Alain Bois, and Buchloh, eds., *Art Since* 1900: *Modernism, Antimodernism, Postmodernism* (New York: Thames and Hudson, 2004), p. 536. Krauss, "Richard Serra: Sculpture," in Foster and Hughes, p. 101.

²⁵ Marcia Tucker, "Richard Serra," in Marcia Tucker and James Monte, *Anti-Illusion: Procedures/Materials* (New York: Whitney Museum, 1969), p. 35.

²⁶ Richard Serra, "Play it Again, Sam," in *Richard Serra: Writings/Interviews*, p. 8. Italics and British spelling are in the original, which was published in *Arts Magazine* in February, 1970.

²⁷ Describing his *Delineator* (1974-76) to Liza Bear in 1976, for example, Serra said: "The juxtaposition of the steel plates forming this open cross generates a volume of space which has an inside and an outside, openings and directions, aboves, belows, rights, lefts – coordinates to your body that you understand when you walk through it. Now you might say that all sounds quite esoteric. Well, one of the things that you get into as you become more in tune with articulating space is that space systems are different than linguistic systems in that they're nondescriptive. The conclusion I've come to is that philosophy and science are descriptive whereas art and religion are not." Liza Bear, "Sight Point '71-'75/Delineator '74-'76," in Richard Serra: Writings/Interviews, p. 36. Originally published in Art in America, May/June 1976.

Alfred North Whitehead, however, that ties most directly into the second paragraph – and looking more deeply into Whitehead's *Modes of Thought*, which served here as Serra's source, suggests a broader and more complex reading.

Whitehead first delivered the lectures collected in *Modes of Thought* at Wellesley College in 1937 and 1938. The sentence Serra used in "Play it Again Sam" was drawn from "Forms of Process," a lecture concerned with actuality – which for Whitehead meant both the facts at hand and the present moment – as it related to the universe. The lecture presented a metaphysical, cosmological but ultimately nontranscendental argument, a sort of version of the Great Chain of Being in which the links were not necessarily great and never ascended to "that one final perfection." The connections from one level of being to the next stemmed from the facts that actuality was always in process, that no process was ever complete, and that in their incompletion processes always relied on adjacent facts and forms and the processes that composed *them*. ²⁹ The larger passage from which Serra drew the sentence in "Play it again, Sam" reads:

Each fully realized fact has an infinitude of relations in the historic world and in the realm of form; namely, its perspective of the universe. We can only conceive it with respect to a minute selection of these relations. These relations, thus abstracted, require for their full understanding the infinitude from which we abstract. We experience more than we can analyse. For we experience the universe, and we analyse in our consciousness a minute selection of its details.³⁰

The paragraph that followed on Serra's trio of epigraphs did not reproduce Whitehead's terminology exactly, but it echoed it quite closely. Serra's language is a bit opaque, but it seems to translate Whitehead's thinking here into a discussion of his process sculpture.³¹ When Serra wrote, then, that "there is no general rule as to which formal properties suffice to determine the structure of a relation," he was perhaps putting the argument that there is no ideal form more or less in Whitehead's terms: there can be no ideal or universal because the universe is not unitary; it consists of an "infinitude of relations." To roll, to crease, to fold, to store, or to bend in order to generate a form is also to choose

One main doctrine, developed in these lectures, is that 'existence' (in any of its senses) cannot be abstracted from 'process.'" Whitehead, *Modes of Thought*, p. 96.

²⁸ Alfred North Whitehead, *Modes of Thought* (Toronto: Collier-Macmillan Canada, 1966), p. 86-88. Originally published in 1938.

²⁹ Whitehead, *Modes of Thought*, p. 88-89.

³⁰ Whitehead, *Modes of Thought*, p. 89.

³¹ There are other points of contact as well. A few pages after the passage that Serra samples, Whitehead seems almost to describe the functioning of *Verb List*. "The essence of existence lies in the transition from datum to issue. This is the process of self-determination. We must not conceive of a dead datum with passive form. The datum is impressing itself upon this process, conditioning its forms. We must not dwell mainly on the issue. The immediacy of existence is then past and over. The vividness of life lies in the transition, with its forms aiming at the issue. Actuality in its essence is aim at self-formation.

"the structure of a relation" for that sculpture. Inevitably that structure is somewhat arbitrary, and yet, as it reveals itself in the "logic of the procedure," i.e., in the final form of a process sculpture, we experience something more expansive – less arbitrary but also less analytical – than the structuring action or relation that Serra had chosen. This is because – to paraphrase Whitehead – each successful sculpture "has an infinitude of relations in the historic world and the realm of form," which we experience intuitively even when we cannot grasp them analytically.

What all of this means for the sculpture is that an operation such as "to roll" can be arbitrary and unimportant on its own (usefully so, for Serra's purposes here), but that when enacted materially, as it is for example in *Slow Roll (For Philip Glass)* (1968) [Fig. 1.5] it links metonymically into a larger system of meaning. This is not to say that it would be especially profitable to look for specific historical or formal references in the sculpture – its references seem to turn inward no less steadily than its involuting form—but that it simultaneously reflects a larger conception of process that gestures outward towards larger meanings. Here the interest is partially philosophical; the sculpture involves a contradiction between a self-referential language that sets in motion a broader meta-language, meaning that it is both "literal" and not (one thinks here of Bertrand Russell's Law of Logical Types, a frequent reference point for Serra; Russell was a student of Whitehead's). In later works – discussed in Chapters 2 and 3 – Serra's sculpture is similarly internally split, but the processes are not so arbitrarily chosen, and Serra's film, video, and other non-sculptural projects give an important sense of which "relations in the historic world and the realm of form" might be pertinent.

The construction of Serra as a postminimalist – ruthlessly and exactingly committed to literalism – leaves no space for these matters. That construction no doubt comes about in part because while *Verb List* may be a defining document of process art, texts by Robert Morris such as "Anti Form" and "Notes on Sculpture Part 4" present explicit arguments in a way that *Verb List* does not, tying process art to art history, perceptual theory, and generally providing readily useable frameworks. It is significant too, however, that Serra and Morris became discursively intertwined for historical reasons – factors having as much to do with art-world maneuverings and the market – as well as for ones stemming from their art. Such factors cannot be dismissed, but if we are to gain some understanding of what "process" meant for Serra they do need to be considered separately from the bodies of work in question. In what follows I will first discuss that historical configuration and its impact on the literature on Serra's work; then I will turn more directly to the two artists' art and thought.

In the spring of 1968 – before the publication of "Anti Form" – Serra appeared as the "newcomer from the West Coast" alongside Bruce Nauman, Mark di Suvero and Walter de Maria at Noah Goldowsky Gallery. With de Maria working in his Fluxus mode, Nauman engaging in visual and linguistic puns about which the exhibition's sole reviewer, Robert Pincus-Witten, had little to say (none of it good), di Suvero producing the gestural welded-steel works for which he has become known, and Serra manipulating rubber in a funky but formally minded manner, "the newcomer" did not seem to have much in common with his co-exhibitors. That said, it was not quite clear where he *did* fit,

and in retrospect Pincus-Witten's points of reference – Barnett Newman, Clyfford Still, John Chamberlain, Jules Olitski – seem unlikely.³²

Critical terms were much more stable when Serra appeared the following winter in 9 at Castelli (also known as the Warehouse Show), an exhibition that Morris curated in Leo Castelli's West 108th-Street storage space. Some of this stability came from the fact that the exhibition was polemical, and recognized as such in the criticism. Writing for the New York Times, for example, Artforum editor Philip Leider quoted extensively from "Anti Form," criticized artists, especially Hesse and Nauman, who did not seem to get with the Morris program, and gave star billing to Serra – who exhibited Scatter Piece (1967), Splashing (1968), and Prop (1968) [Fig. 1.6] – in no small part because his work appeared to reflect Morris's thinking.³³ In itself this judgment was not surprising; it was Leider, after all, who had published "Anti Form" in the first place, and at the time he was very committed to Serra.³⁴ What was more unusual was that Leider's review should appear not in the pages of his own magazine, but in the New York Times: his presence there suggests that Castelli, ever skillful at creating publicity, had convinced the newspaper that it was a major event, which needed to be covered by an insider.³⁵ The Times gave Leider a decent amount of space, and the tone of its own copy – the caption, running underneath a photograph of Serra's *Prop*, which predicted that the exhibition "May very well become a landmark event" [Fig. 1.7] – exceeded even Leider's in enthusiasm. The magazine editor did indeed bring an insider's eye to the exhibition, both going fairly deeply into the aesthetic issues and emphasizing the "underground" quality of the venue. He brought up three times the fact that the exhibition was cold – lack of heat being perhaps the best signifier of a raw space – and underscored a certain art-world familial-quality, noting that the exhibition was presided over by Dorothy Lichtenstein, pointing out that she was the Pop artist's wife and presenting her in a quasi-domestic

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³² Robert Pincus-Witten, "New York," *Artforum* Vol. 6, No. 8 (April, 1968), p. 65.

³³ Erroneously reporting the material of the lead work *Splashing*, Leider wrote, "the main point is that the material – the silver paint – has assumed no form other than the one entirely natural to its own fluid properties. This respect for the properties of non-rigid materials (as opposed to the rigid, severely geometric monoliths which characterized 'Phase One' of Minimal art) has inspired an entirely new undertaking by contemporary artists, and its first results are the heart of the current exhibition." Philip Leider, "The Properties of Materials: In the Shadow of Robert Morris," *New York Times* (December 22, 1968), II, p. 31.

³⁴ Paraphrasing his own thinking about *9 at Castelli* later, he said "Look, this is important stuff. This is a big change and we have to follow it. In fact, this is in *our* direction. These guys are not the threat, they're the logical continuation. People like Serra and Smithson and all these people are people who come out of *us*." In Amy Newman, *Challenging Art*: Artforum *1962-1974* (New York: Soho Press, Inc., 2000), p. 246.

³⁵ Leider's own explanation for his *Times* review is that he was growing increasingly dismayed with his own writers, who did not understand the postminimalist developments that he considered so important. He did not want, he said, to be the only person in the magazine making claims like those cited here in Note 6. See Newman, *Challenging Art*, p. 246.

light in explaining that her duties (which she performed while "freezing beautifully") included the daily rearrangement of a felt piece by William Kaltenbach.³⁶

The certainty with which Morris's polemics were applied to the artists in 9 at Castelli did not come about purely organically, then; it was, to some extent, orchestrated. John Perreault of the *Village Voice*, who was not so directly invested in the exhibition's artists or premise as either Leider or Castelli, showed signs of irritation with the efforts to give the exhibition a definitive underground buzz – publicity in the form of anti-publicity. "I received word via the art world grapevine that it might be better if I did not write about the show. The show was supposed to be some sort of secret." Perreault despaired, too, of the fact that the exhibition came packaged with its central critical phrase inescapably built in, but in the end he focused on the "sensuous and cool" Serra and concluded that there was no choice other than to present him as an "anti-form" artist.³⁷ The other reviewers more or less accepted the exhibition on the terms offered. In Artforum, Max Kozloff worried that the anti-form exploration of materials could easily become gimmicky or anonymous, but thought that Serra, Keith Sonnier, and Alan Saret were able to pull the "anti-form" style off. 38 Gregoire Müller, writing in Arts Magazine, praised Splashing in a review titled "Robert Morris Presents Anti-form: The Castelli Warehouse Show."39

9 at Castelli imprinted itself heavily on Serra's career – critically, commercially and art historically. Within weeks of the exhibition's closing in January of 1969, the

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³⁶ The gender politics surrounding 9 at Castelli were somewhat questionable on a number of levels. For Eva Hesse's difficulties with the exhibition and its critical reception, see Kirsten Joan Swenson, From Factory to Kitchen: Eva Hesse's Labors, PhD Dissertation, Stony Brook University, 2006, p. 237-43.

³⁷ "If I could talk about the show without mentioning the term 'anti-form' I would, but I can't…Younger artists must start somewhere and imitation is a form of flattery. Some will imitate and the more talented will start off where this 'anti-form' thing leaves off…Notice I am not calling it the Anti-Form show. This is my first remark. My second and third are in the form of a question: Why are all these artists together in one show? The answer, which is my fourth remark, is that they have something in common that is immediately perceptible: casual structure (anti-form?)." John Perrault, "9 in a Warehouse," *Village Voice*, December 19, 1968.

³⁸ Maz Kozloff, "9 in a Warehouse: An 'attack on the status of the object," *Artforum*, Vol. 5, No. 9 (February 1969), p. 42. A note on terminology: "Anti Form" is a disputed title. Morris has claimed that it was Leider's imposition; Leider has contended in turn that Morris proposed it because he "realized that sculpture was not as useful a term as it once was" (see Richard J. Williams, *After Modern Sculpture: Art in the United States and Europe*, 1965-70 [Manchester: Manchester University Press, 2000], p. 38). No one, this debate suggests, was especially happy with the title. As I discuss below, that discomfort carries out into other critical venues – yet the term did catch on. It did so as a description more than as a name of a movement, however; in recognition of this fact, I will use the phrase "anti-form" if I am referring to a morphological or procedural tendency and "Anti Form" only when referring to Morris's article.

³⁹ Gregoire Müller, "Robert Morris Presents Anti-form: The Castelli Warehouse Show," in *Arts Magazine*, February, 1969, p. 29.

Cologne-based dealer Rolf Ricke offered Serra's *Belts* to the Italian collector Giuseppe Panza di Buomo for 10,000 Deutsche Marks (about \$2,500 in 1969 dollars), writing: "It is the wish of Serra and myself to give this piece only to a very important private-collection or in a important Museum [*sic*]." Bold salesmanship to be sure, but Panza bought it – and many of the "important museums" signed on too. By the end of the year Serra had been included in exhibitions at the Whitney, the Guggenheim, the Kunsthalle Bern, and the Stedelijk Museum. He had also put on his first New York solo show, again at Castelli's warehouse. Things were moving quickly: by the time of the Castelli exhibition, Serra was only four years removed from making purely "student" work.

The momentum of these events had a profound impact on the literature on Serra, and *9 at Castelli* often appears in surveys as Serra's breakthrough. Texts that focus more closely on Serra's process-based works – and there are surprisingly few – have also aligned Serra closely with Morris's response to minimalism. In the only published

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⁴⁰ Getty Panza archives Box 146 Richard Serra 1 Folder RS1. Letter January 10, 1969. Exchange rate information from the University of British Columbia Saunder School of Business Pacific Exchange Rate Service, http://fx.sauder.ubc.ca/etc/USDpages.pdf. ⁴¹ See, for example, Irving Sandler, American Art of the 1960s, (New York: Harper and Row, 1988), p. 318; Thomas Crow, *The Rise of the Sixties*, (New Haven: Yale University Press, 2005), p. 164; Martha Buskirk, The Contingent Object of Contemporary Art, (Cambridge, Masachusetts: MIT Press, 2003), 133-34; Richard Armstrong and Richard Marshall, The New Sculpture 1965-1975: Between Gesture and Geometry (New York: Whitney Museum of American Art, 1990), p. 15. Even those texts that do not explicitly mention 9 at Castelli often use the logic of Morris's "Anti Form" to set up discussions of Serra's process work. See Anne Rorimer, New Art in the 60 and 70s: Redefining Reality (New York: Thames and Hudson, 2001), p. 24-25 and David Joselit, American Art Since 1945, (New York: Thames and Hudson, 2003), p. 132-33. A partial exception is Hal Foster's discussion of postminimalism in Art after 1900. Morris does provide the frame for the discussion of Serra's work, but Foster is careful to differentiate the two artists. See "1969," in Foster, Krauss, Yve-Alain Bois, and Benjamin H.D. Buchloh, eds., Art after 1900: Modernism, Antimodernism, Postmodernism (Cambridge, Massachusetts: MIT Press, 2004), p. 534-36.

⁴² Most writing on Serra does not focus on process in itself, instead noting its importance *en route* to considering the large-scale steel sculptures that he produced after 1969 and from there to site specificity. The key exceptions to this tendency are the writings of Rosalind Krauss, Benjamin Buchloh, and Richard Williams. There have also been two dissertations surveying process art, but thus far these have not been published. See Kimberly Ann Paice, *Process Art and Pictoriality: Reading the Work of Robert Morris, Richard Serra, and Robert Smithson.* (CUNY Grad Center Diss., 2003); Erik De Bruyn, *The Filmic Anomaly: Moments in Post-Minimalism* (1966-1970) (CUNY Graduate Center Diss., 2002). Paice's ultimate point about Serra is almost diametrically opposed to mine; she describes an automation of process intended to undermine the author function (see especially p. 115-61). De Bruyn, concludes argues in his film production "appears intent on developing an 'industrial' technique of the body which is exempt from the structure of reification" (p. 290), whereas I indent to raise doubts that Serra ever

book-length study of process art, Richard Williams describes a kind of anti-stylish period style, of which Serra is a key example and Morris is the main theorist. More subtle and more thorough in associating Serra with Morris's thinking are the writings of Rosalind Krauss, who has analyzed the first two decades of Serra's work at greater length than any other scholar. For Krauss, Serra's process work provides minimalist idealism with

attempted anything quite so certain. Each of these projects allies Serra much more with minimalism and postminimalism than I do here.

Buchloh's two essays on Serra – ("Process Sculpture and Film in the Work of Richard Serra," in *Richard Serra* (The October Files), 1-20, originally published in 1978, and "Richard Serra's Early Work: Sculpture between Labor and Spectacle, in Richard Serra Sculpture: Forty Years, 43-60) – deserve special note here, because they stand outside the tendency I am outlining. Buchloh argues that Serra opposes minimalism outright rather than continues it dialectically. The later of his texts focuses on sculpture that Serra made before focusing on process as such; that text will return as this chapter progresses. The earlier essay traces an evolutionary path from Serra's process sculpture to "sculptural film," arguing that the artist's work makes clear the obsolescence of the earlier medium. Serra – like Claes Oldenberg, Nauman, and Dan Graham – had all broken the sculptural object down so that it was no longer a discrete object but suggested extension in space and time, leading to the insight "that the new understanding of the nature of sculpture would translate most readily into the medium of film, which by its very definition permits the reproduction of the space-time continuum" (p. 4). Buchloh makes some important points about Serra's process sculpture, but the main thrust of his argument is somewhat difficult to take on: his faith in the necessity of artistic progress – in this case, the inevitable destruction of the sculptural object – is so unshakeable that the text amounts almost to art prophecy rather than art history. Additionally, though published in 1978 it describes a tendency that hinges entirely on Serra's late-sixties output, leaving it out of step with the large-scale steel sculpture that had occupied the artist's attention for much of the seventies and has continued to do so, on an increasingly emphatic scale, ever since. Since Buchloh claimed to locate a large-scale historical trend that is in Serra's work, this inconsistency makes his overall claims difficult to support. One might point out that Hal Foster has convincingly argued that in making sculpture Serra has also deconstructed the medium's conventions, but ultimately this "un/making" is very different from marking the ending of sculpture as an art of space. See Hal Foster, "The Un/making of Sculpture," in Richard Serra: The October Files, p. 175-200. ⁴³ Richard J. Williams, *After Modern Sculpture: Art in the United States and Europe* 1965-70 (Manchester and New York: Manchester University Press, 2000). See especially the introduction and Chapter 1, "Form and Anti Form," p. 1-38. ⁴⁴ Serra has a prominent position in Krauss's pioneering *Passages in Modern Sculpture* (Cambridge, Massachusetts: MIT Press, 1977) and is the subject of three essays she wrote between 1972 and 1986, the last of which, a catalog essay for a retrospective at the Museum of Modern Art, has stood as the most thoroughgoing survey of Serra's career even as it has grown increasingly out of date. She addresses process art at the greatest

length in *Passages* and the 1986 essay. See "Richard Serra: Sculpture Redrawn," *Artforum* 10, no. 9 (May 1972), p. 38-43; "Richard Serra, a Translation," in *The*

precisely the corrective Morris calls for in "Anti Form." "Manifesting a pure operation on a physical material" – "to throw" lead, for example – provided Serra with the means to oppose "the rigid geometries of minimalist sculpture in which a visitor was presented with an object whose construction was a closed system, secreted away within the interior of the object, invisible and remote." ⁴⁵ She does go on to note that Serra eventually became dissatisfied with the kind of floor-bound work that Morris advocated, but in her telling even Serra's eventual rejection of the "anti-form" *modus operandi* represented, more than anything, another turn in the dialectical refinement of minimalist literalism:

As long as non-rigid materials were employed such that the floor had to be used as the vehicle of display, then the procedure took on a figurative quality...[T]he image came back to lay hold of the operation and to convert it into the terms of painting, to threaten it with a space that was virtual rather than actual.⁴⁶

Serra's sculptural development has thus been figured as a ruthless – and fairly successful – drive to squeeze out any reference, any model of space that might suggest referentiality, any territory in which the utterly empirical could give way to private or indefinable experience. In both surveys and in-depth studies, then, Serra's process work appears as "postminimalist" in a strong sense of the word, continuing some aspects of minimalism consistently enough to merit the maintenance of the term, while rejecting others pointedly enough to require the prefix.

Serra does not seem to speak of postminimalism, but – not surprisingly – he has distanced himself from minimalism in general, and Morris in particular. He has said, for example, that he and the other artists included in *9 at Castelli* thought that its polemics had to do with Morris's ongoing battle with Judd, and not much to do with their own work. ⁴⁷ In a 1983 interview with the architect Peter Eisenman, he objected that "Morris plays in my sandbox and everybody else's. I call that plagiarism, others call it mannerism or postmodernism." He stepped up this competitive tone in a discussion of *9 at Castelli* with Chuck Close: "*Chuck*: I think that the Warehouse show at Castelli's was a turning

MIT Press, 1985), p. 260-74 (this essay was originally published in conjunction with an exhibition of Serra's work in Paris in 1983); "Richard Serra, Sculpture," in *Richard Serra: October Files*, (Cambridge, Massachusetts: MIT Press, 2000), p. 99-146.

⁴⁵ Krauss, "Richard Serra: Sculpture," in *Richard Serra: October Files*, p. 104.

^{46 &}quot;Krauss, "Richard Serra: Sculpture," p. 106-7.

⁴⁷ Interview with the author, July 8, 2009.

⁴⁸ Richard Serra, "Interview by Peter Eisenman," in *Richard Serra: Writings/Interviews* (Chicago: University of Chicago Press, 1994), p. 153. The artist and architect had been discussing literal sandboxes, with Serra explaining that he used them in developing models for his sculptures. An argument for the virtues of Morris's approach appears in David Antin, "Have Mind, Will Travel," in *Robert Morris: The Mind/Body Problem* (New York: The Solomon R. Guggenheim Museum, 1994), p. 34-49.

point for you. It was my impression that Bob Morris was trying to make a 'followers of Bob Morris' show. *Richard*: Yeah, but he got outflanked, that's what happened."⁴⁹

This chapter explores specific ways in which "process" came to signify for Serra. Doing so means getting away from the categorical fixity the term has taken on, in order to look more closely at the materials and means of shaping them that ended up being important in his work. This effort will require disentangling Serra from Morris's thinking – and from minimalism more broadly – but the two objections Serra raises above will not get much attention from this point onward. Accusations of plagiarism share a tendency of the literature to overstate the similarities between the two artists' late-sixties work: notwithstanding the general morphological resemblances between, say, Morris's *Threadwaste* (1968) and Serra's *Scatter Piece* (1967), the works' differences, addressed below, are ultimately more important than their similarities. Additionally, questions of who "outflanked" whom structure the argument in avant-gardist terms that are best avoided: it is not clear that the interest of Serra's process-based works always lies in its most "advanced" aspects, regardless of whether what constitutes an advanced position is defined by Krauss or Morris or traced along the trajectory of Serra's own mantra of pure pragmatism, "work comes out of work." 50

The works I begin with are not on the cutting edge of anything: the earliest, which Serra made in Rome, he quickly rejected as student works; the next group are kind of proto-process works, made with many of the same processes but under much less deliberate, theorized circumstances. Each is interesting, though, because we see Serra enacting procedures with an eye towards accessing a rich variety of "relations in the historic world."

2. Perversity and Process

When Serra graduated from Yale in 1964, he had seen a couple of shows by Donald Judd and Robert Morris at Greene Gallery in New York. He thought they "seemed really fresh, really a way out" – but, he said, he could not really see any difference between them. ⁵¹ Upon graduation he left the country for a year in Paris followed by a year in Florence, and he shows no evidence of having thought much about minimalism's development during that time. He had been developing his own, rather elaborate variations on contemporary art – and responding more to John Cage and Robert Rauschenberg than Judd *or* Morris. While he very soon rejected all of the work he made while in Europe, it is too glib to suggest, as Thomas Crow has done, that on his way "to the United States in 1966, he shifted his concerns away from [a] rustic Italian repertoire to the more abstract, linguistic coordinates favored in New York circles." ⁵² He arrived in the city with investments, interests, habits, and eccentricities that had been developed in

⁴⁹ In Chuck Close, *The Portraits Speak: Chuck Close in Conversation with 27 of His Subjects*. (New York: A.R.T. Press, 1997), p. 63.

⁵⁰ References for this phrase are in the introduction.

⁵¹ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁵² Thomas Crow, *The Rise of the Sixties: American and European Art in the Era of Dissent* (New Haven: Yale University Press, 1996), p. 164.

relative isolation; these remained up for development and reexamination when he joined the fray.

Serra was still a painter when he arrived in Paris. He had befriended the composer Philip Glass during the ocean passage to France; the two of them read John Cage's Silence together (beginning an intellectual partnership that would continue in New York, where Glass became Serra's studio assistant), an experience that Serra responded to in his work. "In the oral delivery of this lecture," writes Cage in one of the book's final sections, "Indeterminacy," "I tell one story a minute. If it's a short one, I have to spread it out; when I come to a long one, I have to speak as rapidly as I can. The continuity of stories as recorded was not planned... "53 Serra made about a dozen paintings in which he treated paint much as Cage had treated stories.⁵⁴ He divided his canvas into a grid and timed himself as he painted – brush in one hand and stopwatch in the other – choosing a color at random and filling in squares with it for a minute. 55 The canvases traveled to Florence with Serra in 1965, and were destroyed there. "I went to the American library, saw a recent issue of Art News that included a grid painting by Ellsworth Kelly with random colors, and it looked like what I had just done. I thought if Cage was going to lead me to become a formalist like Kelly, I couldn't go on, so I dropped both Cage and Kelly."⁵⁶ Serra threw the paintings, he has said, into the Arno.⁵⁷

Nothing in Serra's first solo show – *Animal Habitats, Live and Stuffed*, held at Galleria La Salita in Rome in the spring of 1966 [Fig. 1.8] – resembled anything by Ellsworth Kelly. As its name suggests, it featured "habitats" that Serra built for an impressively wide array of animals, some of them alive and some stuffed. The stuffed animals included an ocelot, an owl, and a boar; meanwhile, Serra's "crass menagerie" – as *Time* magazine called it in a predictably kids-these-days review – was fleshed out by two turtles, two quails, a rabbit, a hen, two guinea pigs, and a large sow, all very much alive. ⁵⁸ Another work, *Squatter I*, was a bidet filled with conch shells, old boxing gloves, and the bristles of a broom [Fig. 1.9]. Some titles were deadpan descriptions (*Bird Cage I*); others were sexual puns that read like something out of a William Burroughs novel (*Hairon or after Gasm One: to Barney Newman*) [Fig. 1.10].

Serra's new work was certainly free of resemblance to that Kelly's paintings, but Cage seems still to have been in the background, for the assemblages recall works by

⁵³ Cage, "Indeterminacy," in *Silence*, first paperback edition (Cambridge, Mass.: MIT Press, 1966), p. 260. Italics in the original.

⁵⁴ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁵⁵ Bernard Lamarche-Vadel, "Interview," in *Richard Serra: Writings/Interviews* (Chicago: University of Chicago Press, 1994), p. 113.

⁵⁶ Foster, "Richard Serra in Conversation with Hal Foster," *The Matter of Time*, p. 25.

⁵⁷ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁵⁸ "Please Don't Feed the Sculpture," *Time Magazine* (June 10, 1966). Richard Bellamy, founder of the then-defunct Greene Gallery and a close associate of Leo Castelli, became interested in Serra's work while the artist was in Italy (Author's conversation with the artist, July 8, 2009). Exactly who or what brought Serra's show to *Time*'s attention is not on record, but Bellamy seems a likely candidate.

Cage's close associate Robert Rauschenberg – especially Combines such as *Satellite* (1955), Monogram (1955-59) [Fig. 1.11], and Canyon (1959). The habitats' additive composition and juxtaposition of unlike objects would have recalled the older artist even had Serra not included the taxidermy, but there were key differences. Serra took considerably more interest here in animals as animals than Rauschenberg ever did in his chickens, goats, and eagles. In Rauschenberg, the stuffed animals serve the disjunctive logic of the Combine: what matters most is that they are real, or almost so, and that their incorporation into Rauschenberg's "flatbed picture plane" therefore keeps questions of representation alive and ambiguous.⁵⁹ It matters too that they can neither be made to into pure categories such as "painting," nor fully integrated into the painted parts of the Combines. It was this lack of integration that prompted Cage to write – in one of the texts that Serra and Glass pored over while in Paris – that the Combines have "no more subject...than there is in a page from a newspaper. Each thing that is there is a subject. It is a situation involving multiplicity. (It is no reflection on the weather that such-and-such a government sent a note to another.)" For Serra, though, the stuffed creatures did provide a kind of subject – one that was a bit unwieldy in its polysemy – and the actions of the live animals provided both subject and form. Rather than simply existing together in a "situation involving multiplicity," moreover, Serra understood these elements to be structured in a flexible but important way, and that structure to signify perversely.

Taxidermy seems to have been the installation's starting point. Serra became interested in it in tandem with his then-wife, fellow Yale graduate Nancy Graves. Both had trained as painters, and both would return to New York as sculptors. Their explorations abroad went well beyond the standard highlights of the art-historical Grand Tour. Their most immediately important Florentine discovery was the Museo della Specola, a zoological and anatomical collection put together by several generations of Medicis. One thing they encountered there was a large collection of taxidermied animals. These prompted Graves to learn how to preserve, stuff, and mount animal skins, and to begin a series of taxidermy-inspired *Camels* that she would continue in New York [Fig 1.12]. Serra, meanwhile, began work on *Animal Habitats, Live and Stuffed*. Importantly, then, stuffed animals were not something that Serra was collecting from store windows and trash piles, à *la* Rauschenberg: these were objects that he and Graves made. 61

The taxidermy collection was not the only exhibition at La Specola that captured the artists' attention. They were also fascinated by a large group of wax *écorchés* made by the anatomist Clemente Susini (1754-1814) [Fig. 1.13]. The figures made an enduring impression on both Graves and Serra, and both have suggested that it was seeing La Specola's collection of taxidermy and anatomical waxworks *together* that made the former seem a substantial medium. The connections each artist made between the collections were, however, extremely different.

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⁵⁹ Leo Steinberg, "Other Criteria," in *Other Criteria: Confrontations with Twentieth-Century Art* (Oxford: Oxford University Press, 1972), p. 55-92.

⁶⁰ Cage, "On Robert Rauschenberg, Artist, and his work," in *Silence*, p. 99-108.

⁶¹ Graves seems to have to known more about the technique, and to have performed the actual injections. See Thomas Padon, *Nancy Graves: Excavations in Print: A Catalogue Raisonné* (New York: Harry N. Abrams, Inc., 1996), p. 38.

Graves's view of the anatomical waxworks was informed by a particularly literalist, late 1960s take on modernist organicism; the models "weren't just copied cadavers," she suggested in a 1970 interview, because Susini had pursued the organic relationship of internal and external form so obsessively – with a singleness of purpose, she seemed to suggest, of a conceptual artist playing out every last permutation of a concept. While still in Florence, she began working on a series of life-size camels in a manner that "departed from taxidermy, [but] still alluded to it." The animals, which she researched extensively, interested her because the very existence of these desert animals seemed to her as improbable and hard-won as that of any artwork worth the name. Bearing in mind the obsessive relationship Susini had charted between the interior and exterior, Graves worked to integrate the sculptures' internal armatures with her camels' exteriors on the one hand and with the unlikely evolutionary history of the species as a whole. The sculptures were intended, as Lucy R. Lippard put it, as "interrelated system[s] of intricate form, structure, history, and evolution."

Serra's primary reaction to the wax models was not so formal; he later described them as being "beautiful and also perverse and sexual." ⁶⁵ The dynamics of *Animal Habitats, Live and Stuff* seem to come about in no small part because he connected this intuition to La Specola's taxidermy and leaned on that feeling – hard. One might speculate that the connection came about in part because both types of object confuse the living and the dead in eerie, fascinating ways, or because both involve a peeling away of skin, an odd obsession with surface: likely a matter of no small concern to a soon-to-be-ex-painter, particularly one who was, at the time, drawing associations fast and thick. Serra has insisted on cruder connections as well, though. Susini's wax cadavers "were just stripped from the throat to the groin and spilled out like a feast. So we got very, very involved with that, and animals' relationship to that, and people are animals and so on. So I pushed that into a hypothesis about this whole show's subtext is sex." ⁶⁶ That hypothesis

⁶² Emily Wasserman, "A Conversation with Nancy Graves," *Artforum* (Vol. IX, No. 2, October, 1970), p. 44. Graves outlines what she understood to be the relationship between *Camels* and minimalism in Padon, *Nancy Graves*, p. 38. On the relationship between interior and exterior, see Michael Edward Shapiro, "Inside-Out / Outside-In: The Anatomy of Nancy Graves's Sculpture," in Carmean, Jr., E.A. *The Sculpture of Nancy Graves: A Catalogue Raisonné* (New York: Hudson Hills Press, 1987), p. 26.

⁶³ Padon, *Nancy Graves*, p. 37-38.

⁶⁴ Lucy R. Lippard, "Distancing: The Films of Nancy Graves," *Art in America* (Vol. 63, No. 6, Nov./Dec. 1975), p. 79.

⁶⁵ "Richard Serra in Conversation with Hal Foster," *Richard Serra: A Matter of Time* (Göttingen: Steidl Verlag, 2005), p. 26. The visceral effect of the waxworks is, perhaps, evident in the way the artists' respective memories of seeing them lines up with their genders: in speaking of the objects later, each talked about seeing bodies of their own sex flayed for inspection. Serra describes them as being "slit from scrotum to throat and opened up so you can see the splayed intestines," while Graves remembers them as being "something on the order of a morbid Boticelli: wax women laid out on pink satin with bows in their hair, smiling while flayed from throat to crotch." Padon, *Nancy Graves*, p. 37.

⁶⁶ Conversation with the artist, July 8, 2009.

played out, largely, in the form of a statement included in the pamphlet the gallery published on the occasion of the exhibition:

The work involves a placement of juxtaposed materials for the sake of the idea: the projected sexual metaphor. The concern is not with the merit of any particular esthetic object. The works are psychological and obsessive. Medium is mixed – Animals are used as sex.

Containers as sex.

Experience as Sex.

My ambition is to present a daisy chain.

 $R S^{67}$

In the place of Rauschenberg's "page from a newspaper" in which, *pace* Cage, "each thing that is there is a subject," neutral and equivalent, we thus have at least the ambition for a daisy chain: a form that is highly charged and intensely (if by no means classically) structured. Serra freely admits that the exhibition's impulses were adolescent, so it would seem a little unfair to analyze its success or failure on the question of whether or not his obsession with sex manifested in actual sexiness: at least in retrospect, the only thing that seems to have really turned even him on was the provocation that the show represented.

Another part of that provocation came, of course, from having a pig and other live animals in a gallery – but these too provided structure for the exhibition, at least conceptually.

I had a kind of loose hypothesis, which was if you gave animals material they would actually reorganize the material into the habitats they want to make – or not. And it sounds a little absurd, but I was living with Nancy Graves and we had a huge room and we cordoned off living space in one area and we had the animals in another, and then we would let the animals do what they did, and they we would try to figure out what was there that was useful in terms of how we would proceed. ⁶⁸

"Proceeding" in this case does not seem to have meant precisely replicating the habitats that the animals created for themselves: Serra also had the bases of Brancusi's sculptures in mind, and in no case do the results look especially natural. But then, when an artist is stringing together cages, bidets, various kinds of brush or reeds, and a decent variety of live and taxidermied animals, "nature" obviously is not the point – particularly when he goes on to propose that the viewer understand the animals, their containers, and experience itself "as sex," or to take the entirety as a "daisy chain." Add these elements together with Serra's "loose hypothesis" about animal-created habitats, and one is left

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⁶⁷ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁶⁸ Interview with the artist, July 8, 2009.

with an invitation to see the whole as structured by two things: desire (the artist's and the viewer's alike, presumably), and the behavior of materials.

In the end, of course, all of this is a joke. The behaviors structuring animal habitats are not especially legible under the best of circumstances – and when half of the animals in question are taxidermied and their "behaviors" can only be conjured metaphorically, one is by no means dealing with the best of circumstances. To a certain extent, no doubt, the joke was simple *épater la bourgeoisie* stuff (though the slightly snide, slightly knowing tone of the *Time* review makes pretty clear that the *bourgeoisie* got the joke and could play along just fine, thank you very much). The more interesting targets, though, are Rauschenberg and Cage. Serra had played a joke on Rauschenberg before, when Jack Tworkov, one of Serra's professors, brought him to Yale as a visiting critic. "I put a chicken on a pedestal," Serra later told Kynaston McShine, "tethered the chicken's leg to a nail, and put a box over it. When Rauschenberg lifted the box the chicken rose in the air and started to shit."69 This act inevitably recalled Rauschenberg's 1958 Combine *Odalisk* [Fig 1.14] – a box, crowned by a stuffed rooster, that is collaged in reproductions of Old Master nudes and pin-up girls – a work that, with its sexual puns and art-historical references, seemed to embody the artist's famous proposal that "Painting relates to both art and life. Neither can be made. I try to act in the gap between the two."⁷⁰ Serra's classroom joke suggested, perhaps, that this gap was a bit too decorous, that art needed to be opened up to the disorder of life itself.⁷¹ In Rome the point was similar, though since Serra was still quite fresh from his intense readings of Cage's Silence with Glass, the "Rauschenberg" most recently on his mind would have been not the man but the subject of Cage's essay and the art that "has no subject" because "Each thing that is there is a subject," and each is unrelated to the next. It is almost as if Cage scooped out a space of Zen non-attachment with this interpretation of Rauschenberg, and then Serra took it and tried to make the largest – most subjective, most subject-full, most attached – mess of it that he could.

3. Transitions

Serra did not move straight to New York from Italy. First he returned to his hometown, San Francisco. He did not stay long, but it was long enough to make a contribution – if a negative one – to the local scene.

On a 1965 trip to a salvage shop in Mill Valley, California, William Wiley and Bruce Nauman paid fifty cents for an object that looked like a stepstool, but was too slanted to stand on [Fig 1.15]. Nauman liked it because he had been "trying to make an object...that appeared to have a function and so there was apparently an excuse for formal invention...but in fact didn't have any function." The Slant Step, as they called

⁶⁹ McShine, "A Conversation about Work with Richard Serra," p. 17.

⁷⁰ Robert Rauschenberg, Statement, in Dorothy C. Miller, ed., *Sixteen Americans* (New York: Museum of Modern Art, 1959), p. 58.

⁷¹ Thank you to Anne M. Wagner for this point.

⁷² Quoted in Constance M. Llewellyn, *A Rose Has No Teeth: Bruce Nauman in the 1960s* (Berkeley, California: University of California Press, 2007), p. 32. From Cynthia G.

it, just about fit the bill: it was almost as useless as a sculpture (though Nauman found it a good footrest in certain positions), but it was still an "ordinary" thing. Nauman improvised on the Slant Step occasionally in the months that followed, making a plaster *Mold for a Modernized Slant Step*, and beginning a film with William Allen – unfinished and since lost – called *Building a New Slant Step*. 73

Gloriously useless thing that it was, the Slant Step soon became a fetish object among Nauman's Bay Area peers. In September of 1966, the cooperative Berkeley Gallery in San Francisco held an exhibition in its honor, including the Slant Step itself and variants by twenty-one participants. The exhibition was casual and, in the end, interactive: one night some whiskey-fuelled participants stacked all of the works in a corner, making a pile that viewers had to paw through in order to see individual pieces. Serra, visiting his hometown after two postgraduate years in Europe, proved an especially hands-on viewer. Sometime during the course of the exhibition he made off with the original Slant Step, taking it with him when he moved to New York shortly thereafter.

Serra arrived in New York during the fall of 1966, and found it so active and contradictory that he later likened it to a "traffic accident." ⁷⁵ The highlights of September and October alone would seem to justify his judgment. Frank Stella and Donald Judd's famous interview with Bruce Glaser came out in Artnews in September, and the second part of Robert Morris's "Notes on Sculpture" appeared in Artforum the following month. Ad Reinhardt and Robert Smithson curated the exhibition *Ten* at Dwan Gallery, producing an inclusive view of minimalism: the exhibition included the two curators, Carl Andre, Jo Baer, Dan Flavin, Donald Judd, Sol LeWitt, Agnes Martin, Robert Morris, and Michael Steiner. At the same time – and in the same building – Fischbach Gallery hosted the exhibition *Eccentric Abstraction*, which art critic Lucy R. Lippard had conceived in dialectical opposition to minimalism's "funereal" self-sufficiency, and which included sculpture by Nauman, Hesse, and others who shared "Pop art's perversity and irreverence" and were "devoted to opening up new areas of materials, shape, color, and sensuous experience." In mid-October, Cage, Rauschenberg, Billy Klüver, and other artists and engineers who would later form Experiments in Art and Technology put on the critically disastrous (but extraordinarily well-attended) 9 Evenings at the Park Avenue Armory. Some critics raced to classify all of these movements and goings-on; others complained about the absurdity and irrelevance of naming yet "another category."77

When he first arrived, Serra worked as an art handler at Bykert Gallery. His first job was to install the inaugural solo show by Brice Marden, who had been a classmate at

Foley, interview with Nauman, December 9, 1982, Richard L. Nelson Gallery, University of California, Davis, files.

⁷³ See Joan Simon, *Bruce Nauman / The Exhibition*, (Minneapolis: Walker Art Center: Wiese Verlag), 1994, p. 198, 203.

⁷⁴ See Coosje van Bruggen, *Bruce Nauman* (New York: Rizzoli, 1988) p. 131.

⁷⁵ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁷⁶ Lippard, "Eccentric Abstraction," Art International (Vol. 10, No. 9), p. 28

⁷⁷ David Antin, "Another Category: Eccentric Abstraction," *Artforum*, November 1966, p. 56-57.

Yale. The experience, Serra later told Irving Sandler, was "a little like eating crow." Soon he was supporting himself instead working three days a week as part of Low-Rate Movers, a company he had started with Chuck Close, Robert Fiore, Philip Glass, and Steve Reich: probably one of the hippest moving crews ever, though no one knew that yet. Serra was not laboring in hopeless obscurity, though. He had frequent phone calls and studio visits from Richard Bellamy, the founder of Green Gallery (which had gone out of business by then) and a close associate of Castelli and other gallerists who specialized in contemporary art. It was Bellamy who put Serra in the Noah Goldowsky exhibition with Nauman, De Maria and Di Suvero, though that was not until the spring of 1968. There would be a very experimental period before Serra would have much public exposure.

In 1967 – about eighteen months before 9 at Castelli – Serra made a relief sculpture that he called *Slant Step Folded* [Fig. 1.16]. It is not the first work he made in New York, nor the most important work of his first year or so in the city. But it is partly for these reasons, not in spite of them, that Slant Step Folded is a good point of entry into Serra's earliest moments in the New York art world: it is decidedly the work of an artist trying to find his way, not of one already beginning to be borne aloft by the publicity juggernaut created by Castelli, his affiliates, and Leider's Artforum. Serra still had the Slant Step during most of this time, and he has said that he made several versions of it (Slant Step Folded seems to be the only one extant, or to exist in reproduction). "It was a way of entering into a dialogue with a lot of other artists, using one object to deal with. So it was kind of a way of seeing who was out there, who was doing what, and I kind of thought for sure this was a way to investigate materials."⁷⁹ Other than Nauman's bemused reaction to Serra's theft of the original object, there is no record of artists' reactions to Serra's attempts at Slant-Step-related provocation; evidence of "dialogue" is present only circumstantially, in the works themselves. 80 It shows us something about what Serra thought was possible and interesting during one of the most vital moments in New York's downtown art world – and it suggests that he was not, at least immediately. especially interested in taking on minimalism.

It seems to have mattered that Serra first encountered it during the run of Berkeley Gallery's Slant Step Show, where any fetish status the object accrued arose from its particularly ambiguous version of uselessness. It was almost nothing, yet interesting enough to require interpretive response – which, in a milieu increasingly dubious about the status of traditional media, meant that maybe it was also almost art. What would it take to make it so? What *was* it? Such were the questions implied by organizing an exhibition around it. It is easy to imagine that Nauman's irritation with the exhibition arose because his fellow participants mostly answered with ludic, hippie versions of old-

⁷⁸ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

⁷⁹ Author's conversation with the artist, July 8, 2009.

⁸⁰ Frank Owen and Phil Weidman, "Nauman Interview, June 13, 1968," in *The Slant Step Book* (Sacramento, CA: The Art Co., 1969), p. 8.

fashioned romantic aggrandizement. ⁸¹ Nauman, by contrast, responded by evacuating the Slant Step's thingness even further: *Mold for a Modernized Slant Step* [Fig 1.17] does not replicate the original but poses it in the conditional, suggesting that it must be "modernized" to be worth dealing with – and offering up even this much only *in potentia*, asking the viewer to imagine a void in a clumpy, atavistic-looking mold that finally does not promise much in the way of modernization (and perhaps does not promise anything much at all). The work thus leverages the Slant Step's vacuity against the "materiality and bodiliness" that are "sculpture's age-old resources" – making sculpture by dismantling sculpture in an act of "back-handed reliance," a dependent move that Anne M. Wagner has pointed out was essential to Nauman's increasingly expansive use of media ⁸²

Serra seems similarly to have found the Slant Step to provide useful leverage for experiments that moved beyond traditional media – describing it, again, as "a way to investigate materials" - though he differed from Nauman in that he had not vet given sculpture much rigorous thought. Serra had trained as a painter at Yale, and if he maintained a "back-handed reliance" on any medium throughout his early adventures with materials – primarily meaning different types of rubber – painting was the one. 83 One of his earliest extant rubber works, a relief called *Remnant* (1966-67) [Fig. 1.18], seems to declare as much. It is a warehouse remnant, part of the booty Serra had carted home from his industrial neighbors soon after moving to New York. It also seems to be a remnant of the pictorial tradition.⁸⁴ Two dense sheets of vulcanized rubber suspended from heavy-duty nails, its outer surface is mostly blank, except for a few marks. This is no near-tabula rasa optimistically awaiting further inscription, though; the marks are not script but scuffs, minor and more-or-less inconsequential accidents – accreting more will not, it seems, advance the work, just perhaps push it, not very romantically, a little closer toward being a ruin. This, then, is what painting's leftovers look like: pleasing in their substantial materiality, maybe, but lacking in real possibility. Time to move on.

Serra did not move on immediately, however. The relief was the dominant format of his first year or so in New York, and in remaining tied to the wall it remained bound to the pictorial tradition. So much has often been remarked, by Serra and others alike. 85

⁸¹ To take just one example: William Weatherup's "Slant Chant" seems to have been performed as he held a piece called *Willow Slant Step* and wore a g-string, crown, and cape. See Weidman, *Slant Step Book*, p. 14-19.

⁸² See Anne M. Wagner, "Nauman's Body of Sculpture," in Llewellyn, ed., *A Rose Has No Teeth*, p. 124. Wagner does not discuss *Mold for a Modernized Slant Step*, but her discussion of the way that sculpture as a traditional medium "had to be decisively conquered and then aggressively destroyed" by Nauman (p. 120) is very relevant here.

⁸³ He has said that he began taking sculpture seriously as sculpture after making *One-Ton Prop*. Foster, "Richard Serra in Conversation with Hal Foster," in *The Matter of Time* (Göttingen: Steidl and Guggenheim Bilbao, 2005), p. 30.

⁸⁴ Thanks to Anne M. Wagner to pointing this out when we went through the MoMA retrospective together in the summer of 2007.

⁸⁵ See, for example: Bernard Lamarche-Vadel, "Interview," *Richard Serra: Writings/Interviews*, 113-115; Yve-Alain Bois, "A Picturesque Stroll around *Clara-*

And indeed, Serra's early reliefs very often take their primary structure from decisions made about the surface. This is not to say that Serra was preoccupied with the flatness of the picture plane: after *Remnant*, the only planar work he would make in rubber was Doors (1966-67) [Fig. 1.19] – two paint-mottled planes that prompted Robert Pincus-Witten to compare Serra to Clyfford Still and Jules Olitski, though in truth the paint was an artifact of a casting process decidedly more indebted to Jasper Johns. 86 More often, Serra's reliefs are surfaces turned three-dimensional as a result of having been cut while flat, then twisted, fastened, and suspended. Take Slant Step Folded, which hardly resembles the Slant Step at all [Fig. 1.16]. Serra reduced the original to its skin, made a template from its sides, stretched it lengthwise to eight feet and then took the section that most recalls the dumb furniture of the original and wrapped it around so that the whole hints at a sleeve made by an especially crude tanner with an odd sense of proportion. Template (also 1967) [Fig. 1.20] had its origins in a flat pattern too, this time one that Serra drew from a hand-drawn tailor's book that he found on Delancey Street in the Lower East Side. "The tailor had laid out...maybe 150 cuttings for how to make different suits and jackets and whatever. So I took one and laid out the pattern and cut it and folded it and hung it."87

Serra began both *Slant Step Folded* and *Template*, then, as a painter might: preparing the surface, accommodating it to a basic design, hanging the results. Residual painterly habits, though, do not necessarily indicate close focus on pictorial conventions: notice that when Serra spoke of the advantages of working with a quasi-arbitrary subject like the Slant Step he described it "a way to investigate materials," something much more local and specific than investigating the conventions of a medium. Painting's conventions do not come under attack here but serve instead as a kind of known constant, a background against which to explore certain variables.

The most important variable was the behavior of vulcanized rubber Serra's primary material in these reliefs. Vulcanized rubber is an extremely strong industrial product. In its natural state, rubber consists of long-chain organic molecules that run loosely parallel to each other, unbound but tending in the same direction. But when rubber is vulcanized – cured, generally with sulfur, over a high heat – these chains form cross-links, which bind them together at multiple points. The result is much a harder and more durable material, able to be precisely formed and so better suited to industrial purposes. It retains some of the looseness and flexibility we suggest when we describe something as "rubbery," and will bend and curve (but not quite flop) under pressure. Unlike uncured rubber, though, it is elastic; when the deforming pressure is removed, vulcanized rubber will bounce back.

Art historians tend to describe the materials Serra favored in the late 1960s – rubber and lead, especially – as malleable. Technically, a malleable material is simply one that will bend rather than break when being hit with a hammer (*malleus*, in Latin). More generally, however, the word implies receptivity and ease of manipulation. We expect a malleable material to succumb to the will of its handler – not precisely and not

Clara," Richard Serra: The October Files, 59-98; Hal Foster, "Richard Serra: The Un/making of Sculpture," ibid., 175-200.

⁸⁶ Robert Pincus-Witten, "New York," Artforum Vol. 6, No. 8 (April, 1968), p. 65.

⁸⁷ Conversation with the artist, July 8, 2009.

without some predictably unpredictable loose edges, but certainly without offering any resistance. The materials of Serra's process works are malleable on the technical level, but not necessarily on the connotative one: hang vulcanized rubber from a nail on the wall and it will droop, yes, but it will also bounce back. If there is a sense in which it feels like flayed skin, there is an additional, underlying sense that this skin is still backed by live muscle that lifts and structures the material according to its own design. There is then a tension in the material that we do not associate with malleability, and that we experience as a contradictory force.

Slant Step Folded and Template seem calculated to articulate vulcanized rubber's particular combination of precision, malleability, and density. The cuts are clean and mechanical, the folds are crisply rounded, and the surfaces have a leathery substantiality behind them. In a sense, then, the reliefs take seriously the "loose hypothesis" of the Animal Habitats, that Serra could make art by taking structural cues from the materials he was working and mining them for the perverse and the contrary.

We are accustomed to thinking of rubber works from this historical moment as having a bodily or skin-like quality: for examples, we need not look farther than Lippard's *Eccentric Abstraction*, which brought together the strange indeterminate-yet-explicit sexuality of Louise Bourgeois's latex and plaster *Double Negative* (1963), Eva Hesse's *Ingeminate* (1965) and *Several* (1965), organically dangling sculptures in which rubber balloons had been encased in papier-mâche and connected by looping, drooping surgical, and Nauman's cheesecloth-backed latex streamers, which Lippard described as "exhausted." Serra's early reliefs stand in relation to these works, but as part of a somewhat extended family. None of his rubber works ever have the intimate, translucent dermal feeling that comes from latex and other uncured rubbers, nor do they have the particular kind of humorous pathos that Lippard favored for the exhibition, a kind of sadclown floppiness.

Yet bodiliness was still at issue in Serra's work; alienation from actual bodies was just constructed a bit differently. When this artist compared the surface of *Doors* to skin, for example, he meant elephant skin – not some inviting, seductively-touchable-even-if-creepy human dermis. ⁸⁹ Loaded leathery connotations emerged, too, in Pincus-Witten's review of Serra's work in the Goldowsky show: each unit in *Belts* [Fig. 1.21], which is also made of vulcanized rubber, was "like a thick, flaccid harness"; related works were

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⁸⁸ Lucy Lippard, *Eva Hesse* (New York: Da Capo Press, 1977), p. 83. For more on the use of rubber in and around *Eccentric Abstraction*, see Briony Fer, "Objects Beyond Objecthood," *Oxford Art Journal*, Vol. 22, No. 2 (1999), pp. 27-36.

Museum of Modern Art, podcast, *Richard Serra Sculpture: 40 Years* (2007). Serra discussed his discovery of the original industrial doors at the Erie-Lackawanna pier, which was being torn down, and his subsequent use of the doors. "I cast the doors in rubber and backed them with fiberglass and actually made the doors look exactly like the [original] doors looked only in a different material. And they had the look of kind of dirty skin or elephant skin to them. These pieces were abject in their look, because they really looked like something that had been discarded. But then you looked at them and you realized that someone had gone to a great deal – and length – to make something that looked like something that had been discarded."

"large untitled 'S and M' rubber belt intermeshings." Ten months later, reviewing 9 at Castelli, Max Kozloff wrote that Serra was possessed of "a peculiar gaminess that gives to his lead or latex debris a hide-like authenticity." One of the things the relief format stages, then – perhaps a little too literally – is a feral quality, an interest in animality.

From the *Animal Habitats* on through these early reliefs, then, Serra was clearly attracted to a kind of wild perversity: the Roman works were thematically kinky and not much more; *Slant Step Folded* and *Template* maintained the thematic approach but began drawing contradictory behaviors out of materials as well; Serra took another step in this direction in the largest and probably best known of the reliefs, *Belts*: eleven masses of vulcanized rubber strips that hang from industrial-strength nails. Each mass is about six feet long, and projects almost two feet off of the wall at its widest points. Individually, then, they are just slightly larger than human scale, though the overall proportions of the wall-sized work are considerably more encompassing. In making *Belts*, Serra would suspend a strip, let it dangle, attach another strip to it with a bent nail, and another and another, finally twisting about a dozen strips back on one another to form each mass or "harness." To the mass of belts furthest to the left he added a line of blue neon, theatricalizing the looping forms, which are repeated again – excessively, absurdly – by the looping power cord that attaches the relief to the box high up to the left.

The way he hung *Belts* was, Serra told Foster, "influenced by Oldenburg – not what he was making but how he was using gravity as a force, a forming device, to allow things to structure themselves over a given space," to which Foster aptly responded, "For you gravity was about forming or structuring. For others it was about destructuring."92 This is a simple distinction but not a trivial one, for the uses of gravity to create or undermine structure are connotatively different. The "destructuring" impulse in latesixties sculpture has received more interpretive attention than its opposite. Rosalind Krauss and Yve-Alain Bois tie it to Bataille's conceptualization of the *informe*; Maurice Berger, David Joselit, Richard Williams, and Kirk Varnedoe all relate it to the dissipative impulses of the New Left – whether that manifests in Marcusan desublimation, A-bomb paranoia, or the more despondent moments of contemporary pop music. 93 These arguments differ widely in their philosophical orientations and their levels of sophistication, but for all of them the key affective force at work is breakdown. There is something depressive about this impulse ("This is downer art," writes Varnedoe, "let's face it – it is really downer art – and it is about going down, 'all fall down'"). Part of the affective charge is also (as it is in depression) a feeling of inevitability: Morris and Smithson, probably the prime examples of artists who used gravity to destructure, each

⁹⁰ Robert Pincus-Witten, "New York," *Artforum* Vol. 6, No. 8 (April, 1968), p. 65. ⁹¹ Kozloff, "9 in a Warehouse: An 'attack on the status of the object," *Artforum*, Feb 1969, p. 42. Oddly, Kozloff's wording suggests that it is the man itself who is in possession of a "particular gaminess," though he ties the quality to the art as well. ⁹² Foster, "Richard Serra in Conversation with Hal Foster," in *The Matter of Time*, p. 27.

⁹³ Rosalind Krauss and Yve-Alain Bois, *Formless: A User's Guide* (Cambridge, Masachusetts: Zone Books, 2000); Kirk Varnedoe, *Pictures of Nothing: Abstract Art Since Pollock* (Princeton and Oxford: Princeton University Press, 2006), p. 167, 174; David Joselit, *American Art since 1945*, p. 133-34; Richard J. Williams, *After Modern Sculpture*, p. 68-80.

tie such acts to physical or natural laws, and those laws to nuclear or environmental apocalypse. ⁹⁴ That sense of inevitability is predictable enough: the downward, erosive pull of gravity is, after all, one of our most basic expectations. When Serra uses that pull to create structure and lift he does not, of course, refute the laws of gravity: works such as his rubber wall reliefs, *To Lift* (1967), and especially the Props do not deny but depend entirely on its force (a matter I will take up in greater depth in the next chapter). He does refute our expectations about how gravity will make objects behave, though, and these expectations are among the most basic we have.

4. Dedifferentiated Vision

In 1967, Serra shifted his work from the wall to the floor. Jackson Pollock – whose *Mural* (1943) was the basis for *Belts* – was on Serra's mind the whole way.

The implication of Pollock's paintings was noncompositional over-allness: open field. However, the implications of the open field remain bounded by the frame. The *Belt* relief differs from Pollock in that it establishes a near reading of discrete units in succession. That is, each form being different prompts one to walk from form to form comparing the inherent process that delineates the work. The only Gestalt reading possible is from a far distance. I realized that open-field work had other potentials if it was not bound by the wall. The result of this consideration led me to open-field scatter pieces, tear pieces, splash pieces, and cut pieces. Here relief was no longer an issue. 95

Serra's first "open-field" work was *Scatter Piece*, which he made in his studio in 1967 and first exhibited in *9 at Castelli* in December, 1968. Scatter Piece [Fig. 1.22] incorporates aspects of Pollock's example – it is an allover or "open field" composition; it places heavy emphasis on materiality; it very deliberately counterbalances its moments

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⁹⁴ Smithson was, of course, especially committed to the Second Law of Thermodynamics, stating that all matter tends towards disorder. See especially "Entropy and the New Monuments" and "A Tour of the Monuments of Passaic, New Jersey," in *Robert Smithson: The Collected Writings*, p. 10-23 and p. 68-74. Morris's "Notes on Sculpture, Part 4," meanwhile, included the following epigraph by the pop-pseudo-science writer Immanuel Velikovsky: "...catastrophes of the past accompanied by electrical discharges and followed by radioactivity could have produced sudden and multiple mutations of the kind achieved today by experimenters...The past of mankind, and of the animal kingdoms, too, must now be viewed in the light of the experience of Hiroshima and no longer from the portholes of the Beagle." See "Notes on Sculpture," in *Continuous Project Altered Daily*, p. 64.

⁹⁵ Bernard Lamarche-Vadel, "Interview," *Richard Serra: Writings/Interviews*, p. 114. ⁹⁶ It is now permanently on view at Dia:Beacon. Serra has said that a few of the rubber strips have decayed too much to be included in Dia's installation, but not many. He did, however, install it a bit differently in response to the two spaces. It has only been shown in these two locations. Author's conversation with the artist, July 8, 2009.

of accident with structure – although Serra has been ambivalent about how directly the works he made after *Belts* responded to Pollock.⁹⁷ There is no doubt, though, that the painter was important to Serra and his peers in 1967. That spring, the Museum of Modern Art had staged a Pollock retrospective, the largest exhibition the museum had ever dedicated to an American artist.⁹⁸ Artists such as Morris, Judd, and Mel Bochner were, in Barbara Rose's words, "dumbfounded by Pollock's achievement" following the exhibition.⁹⁹ Morris was especially programmatic in his attempts to assimilate that achievement, relating it to his own work and that of his contemporaries, and he, much more overtly than Serra, brought *Scatter Piece* under Pollock's umbrella. By including it in *9 at Castelli* – the "Anti Form" show, as Perrault and others dubbed it – he related the work to Pollock on the level of process. Then a year and a half later he tied it to the painter on a perceptual level as well, reproducing it in "Notes on Sculpture Part IV: Beyond Objects." These have provided the primary interpretive frames for works Serra made around the same time as *Scatter Piece*.

In perhaps the most-quoted passage of "Anti Form," Morris wrote: Of the Abstract Expressionists, only Pollock was able to recover process and hold onto it as part of the end form of the work. Pollock's recovery of process involved a profound rethinking of the role of both material and tools in making. The stick that drips paint is a tool that acknowledges the fluidity of paint. Like any other tool, it is still one that controls and transforms matter. But unlike the brush, it is in far greater sympathy with matter because it acknowledges the inherent tendencies and properties of matter. ¹⁰¹

Morris goes on to note that artists had certainly left their productive processes visible before: unfinished works were prized during the Renaissance, and in the later-nineteenth century Auguste Rodin and Medardo Rosso deliberately made sculpture that had the *look*

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⁹⁷ See for example his comments in "Responding to Pollock: A Dialogue of Artists," With Kirk Varnedoe, Brice Marden, Richard Serra, Jessica Stockholder, and Jessica Stockholder. The Museum of Modern Art, December 8, 1998. Museum of Modern Art Archives, Sound Recordings of Museum-Related Events, 99.8, 99.8D.

⁹⁸ Kirsten Swenson argues that there was a rush, after the exhibition, to proclaim a younger artist "the new Pollock," and that after *9 at Castelli* Serra was the "winner," due as much to his self-fashioning as a working-class, macho artist as to his art. Swenson has many good points to make regarding Eva Hesse, the main focus of her project, but her argument regarding Serra is flawed because it hinges on the mistaken notion that *Scatter Piece* and *Splashing* were executed quickly and easily. Kirsten Joan Swenson, *From Factory to Kitchen*, p. 240-41.

⁹⁹ Barbara Rose, "Namuth's Photographs and the Pollock Myth," in Barbara Rose, ed., *Pollock Painting* (New York: Agrinde Publications, 1980), n.p.

¹⁰⁰ Morris, "Notes on Sculpture Part 4," in *Continuous Project Altered Daily*, p. 66.

¹⁰¹ Morris, "Anti Form," p. 43.

of unfinish. ¹⁰² But process had not been valued *in itself* in these cases; what was really at stake was the mark of the artist's hand. This is where Pollock was different – and this, in many ways, was what was really at stake in Morris's argument: "it remained for Pollock and [Morris] Louis to go beyond the personalism of the hand to the direct revelation of matter itself." ¹⁰³ By using soft materials and allowing "considerations of gravity [to] become as important as those of space," artists created a situation in which chance and indeterminacy supplant *a priori* orders. One merit of this approach was that it got the self out of the way, another was that it allowed chance to dictate the form of the work resulted in works that opposed the established orders – idealized forms whose perpetuation was an "anti-entropic and conservative enterprise." ¹⁰⁴

On the face of it, *Scatter Piece* correlates beautifully to Morris's argument. To scatter a material is to give it over to gravity, the primary force operating within Morris's "anti-form" work. It is also to give that material "passing form," canceling the possibility of idealized, eternal orders. Morris's preferred techniques –"[r]andom piling, loose stacking, hanging" – describes pretty well the way that Serra installed the work, especially if one strikes "hanging" from the list. And *Scatter Piece* simply *looks* "anti-form." It has a throwaway aspect – again because its latex strips are scattered, and also because they are somewhat junky in their appearance (all the more so now, after more than four decades of latex decay).

Title notwithstanding, however, the scattering that took place during installation is not the only process involved in *Scatter Piece*. *Scatter Piece*'s main material has generally been identified as scraps of latex. This is not wrong, but it is incomplete, as well as incorrect in its implication that Serra was working with a kind of industrial readymade. It is true that he had been doing just that in the vulcanized rubber works: this is especially evident in the comically squat *Chunk* (1966) [1.23], and even the more elaborate *Belts* involved only simple, non-transformative manipulations of the material, cutting and stapling. By contrast, though, the latex strips in *Scatter Piece* were laboriously handmade:

I poured rubber and latex on the floor, with fiberglass, and then pulled them off the floor. So they're all cast from the floor...I colored them green or ochre, that really terrible – I mean if you look at it it's a really putrid color. And several of them actually pick up the floor surface so they have a kind of red or an orange or whatever. And I made all of them – it took months and months to make them. I'd just get up for an hour every morning and cast these things. ¹⁰⁵

There are remnants of this process in the final work, though they are by no means as self-evident as the scattering of the title. The fiberglass backing is a kind of asphalt color –

¹⁰² "The visibility of process in art occurred with the saving of sketches and unfinished work in the High Renaissance. In the nineteenth century both Rodin and Rosso left traces of touch in finished work." Morris, "Anti Form," p. 44.

¹⁰³ Morris, "Anti Form," p. 44.

¹⁰⁴ Morris, "Anti Form," p. 45.

¹⁰⁵ Author's conversation with the artist, July 8, 2009.

industrial in its hue and heft but fibrous enough to appear somewhat organic, even a bit rotten. It is the latex, though, that Serra describes as "putrid." In its current state, at least, it is more ochre than green, with a color and consistency that is again hide-like, or perhaps resembles strips of fat. Casting the studio floor produced a few board-like rectangles in the latex surface, but nothing so definitively floor-like as wood grain. The paint that was on the floor has come off on the latex surface, as Serra pointed out, but the viewer needs to know that these strips are casts in order to put together that these colored flecks have come off the floor.

As might befit an "anti-form" work, then, *Scatter Piece* is extremely process-intensive – but the processes involved are somewhat at odds with each other. One is immediately perceptible, the other obscure without being especially mysterious. Temporally, one takes place in the kind of continuous present that Morris favored, while the other has unfolded in an inaccessible and fairly prolonged past: a meditative, perhaps satisfyingly boring hour or so passed morning after morning, taking some imprecise measure of the studio. *Scatter Piece* does not offer "process" up as something that is entirely self-evident, then – and for Morris, at least in "Anti Form," such self-evidence is precisely the point.

It is notable, however, that Serra himself did not tie *Scatter Piece* to Pollock on the level of process – he did so, as in the passage quoted above, on the level of perception. One of the merits of *Belts*, again, was that "the only Gestalt reading possible is from a far distance"; *Scatter Piece* advances on *Belts* in that "open-field work had other potentials if it was not bound by the wall." Serra has explained the cord cutting across *Scatter Piece* in terms that are consistent with this perceptual interest, saying that he included it because he felt the need for some kind of horizon line, an internal measure or articulation of elevation. ¹⁰⁶ It is a space that the body can enter into – at least to a limited extent – and activates the "open-field work" in a way that is not possible with a wall relief.

Serra's language here – in particular his rejection of the Gestalt – may again seem to align Scatter Piece with Morris's rhetoric, especially the 1969 essay "Notes on Sculpture, Part 4: Beyond Objects," in which the work appeared alongside a 1968 Barry Le Va scatter piece, Smithson's *Mirror Trail* in the Cayuga Salt Mine Project (1969), and Morris's own *Untitled (Threadwaste)* (1968) [Fig. 1.24]. Such works, he argued, demand a new kind of perception. They do not present things but offers up stuff – stuff that is often very heterogeneous, yet does not read as multiple, discrete figures because it spreads laterally across a wide swath of floor, moving into the peripheral vision and denying the possibility of profile or plan viewings and with them a Gestalt view. For all of these reasons, he argues, they demand an unconscious vision – the model of which he finds in the writings of Anton Ehrenzweig, a Viennese émigré who lectured in Art Education at Goldsmith's College from 1938 until his death in 1966. Proposing a revision of Freud's model of the relationship between the conscious and the unconscious mind, Ehrenzweig's posthumously published *The Hidden Order of Art* argued that adult, nonartistic perception tends to be inaccurate because the conscious or secondary processes attempt to organize the visual array into a "good Gestalt" in order to make sense of it,

¹⁰⁶ Artist's conversation with the artist, July 8, 2009.

distorting reality in doing so.¹⁰⁷ Adapting Ehrenzweig's argument, Morris contends that conscious modes of viewing are not helpful with the new art, which takes "the conditions of the visual field itself (figures excluded) and uses these as a structural basis for art."¹⁰⁸

The art under discussion relates to a mode of vision that Ehrenzweig terms variously as scanning, syncretistic, or dedifferentiated – a purposeful detachment from holistic readings in terms of gestalt-bound forms. This perceptual mode seeks significant clues out of which wholeness is sensed rather than perceived as an image and neither randomness, heterogeneity of content, or indeterminacy are sources of confusion for this mode. It might be said that the work in question does not so much acknowledge this mode as a way of seeing as it hypostatizes it into a structural feature of the work itself. ¹⁰⁹

If "Anti Form" provides a theoretical context for Morris's Felts, "Notes on Sculpture Part IV" does the same for *Untitled (Threadwaste)*. Threadwaste, a sticky, matted byproduct of the textile industry, is in itself quite a heterogeneous material – so shot through with shredded colors and remnants of pattern that its overall mass reads as a grayish neutral. Interspersed into this mass – which is variable in dimensions, but always substantial enough to occupy the visual field - are asphalt chunks and copper tubing. These give the spread a somewhat threatening air – you would not want to wade into it – but do not disrupt its overall sense of neutrality. This seems important, because Morris has also wedged eight double-sided mirrors into the material, and though some of them stick up high enough to reflect the space of the room, most reflect the material back on itself, redoubling and seeming to reiterate the overall lack of inflection. The mirrors both confuse the whole and get lost in it, as they are meant to: this is an attempt to hypostasize Ehrenzweig's dedifferentiated vision "into a structural feature of the work itself" so that "the 'figure' is literally the 'ground." If, as Morris had written in 1966 of the minimalist object, the "better new work takes relationships out of the work and makes them a function of space, light, and the viewer's field of vision," then the floor-bound works that he had come to prefer by 1969 privilege his final term – the field of vision – over all, anticipating and encouraging a loose, unfocused of vision. 112 As Morris frames it, then, Ehrenzweig's model of perception enriches phenomenological readings of postminimalism: if a work takes its meaning from the act of perception, Ehrenzweig can help us think about how exactly that might take place.

¹⁰⁷ Ehrenzweig, *The Hidden Order of Art* (Berkeley: University of California Press, 1967), p. 33.

Morris, "Notes on Sculpture Part 4," in Continuous Project Altered Daily, p. 57.

¹⁰⁹ Morris, "Notes on Sculpture, Part 4," p. 61.

¹¹⁰ It filled his studio in late 1968 and a room of Leo Castelli's gallery in February of 1969; today it can often be found taking up a large stretch of floor in the Museum of Modern Art's permanent collection.

¹¹¹ Morris, "Notes on Sculpture, Part 4," p. 57, 59.

¹¹² Morris, "Notes on Sculpture, Part 2," in *Continuous Project Altered Daily*, p. 15.

Serra seems not entirely to have bought this argument. In "Play it again, Sam," an essay published in February of 1970 and written around the time of his first solo show at Castelli, he declared that "[a] recent problem with the lateral spread of materials, elements on the floor in the visual field, is the inability of this landscape mode to avoid arrangement qua figure ground: the pictorial convention." Due precisely to the lateral spread that Morris proposes as the key to accessing dedifferentiated vision, in other words, works like *Untitled (Threadwaste)* lend themselves much more to Gestalt than dedifferentiated vision. The same should of course be said of some of Serra's own works, including *Scatter Piece* – and writers on Serra such as Yve-Alain Bois and Rosalind Krauss have seen this moment of frustration as a turning point in Serra's work. Rightly enough: Serra did not stop working on the floor at that point, but he did largely move away from works that suggest a visual field and begin to sharpen his focus on sculpture as such.

Missing from these arguments, however, is an acknowledgment that "Play it again, Sam" might have a had bone to pick with "Notes on Sculpture, Part Four." On the contrary, Krauss and Bois frame Serra's self-criticism in terms of Morris's critical priorities, especially as laid out in "Anti Form": the limits Serra encountered on the floor were primarily those of illusionism and idealism, the great enemies of the literalist artwork. All evidence suggests that Serra was indeed in broad sympathy with Morris's opposition to illusionism and idealism, but "Play it again, Sam" suggests that the imperatives driving him were different.

Continuing to voice his concerns about floor-bound works, he wrote:

The rationale for this type of investigation is a plea for perceptual wholeness or a willingness to allow the definition of the place to control the priority of the relationships. In part this is a misinterpretation of Anton Ehrenzweig's concept of dedifferentiation. The mystique of loosening up remains no more than a justification for Alan [sic] Kaprow.

Kaprow neither made work of the sort Serra was critiquing nor displayed any obvious interest in Ehrenzweig. The older artist had, moreover, argued that Morris's anti-form sculpture let the gallery space "control the priority of the relationships" in his anti-form sculpture *too much*: he ought to break free of institutions in order to better merge art and life. Ultimately, then, the passage does not make much sense as an argument with Kaprow. Its implication would seem rather to be that Morris's thinking had come perilously close to Kaprow's "mystique of loosening up." Serra's judgment implied here is no doubt unfair to Morris and Kaprow, but there is a kind of transitive property at work here. As Branden Joseph has pointed out, Morris was closer to Kaprow's thinking around the time of "Anti Form" and "Notes on Sculpture, Part 4" than he had been in his

See Bois, "A Picturesque Stroll around *Clara-Clara*," p. 59-60, and Krauss, "Richard Serra: Sculpture," p. 107.

¹¹³ Serra, "Play it again, Sam," p. 7.

of Art and Life (Berkeley: University of California Press, 1993), p. 90-94. Originally published in Artforum in 1968.

minimalist years, in no small part because Morris was then more concerned with Cage. "The Cagean prospect of the completely immanent and unalienated existence of art," Joseph writes, "seems to have served as the space within which Morris's project was erected and an example against it would be judged." Such immanence and absence of alienation is not so far off from the "plea for perceptual wholeness," that Serra objects to, and such a wish largely drives "Notes on Sculpture, Part 4." There Morris posits that the open field work he describes in the article gave the sixties the kind of art that was needed: an art that fit the sensibility of the time while embedding its viewers in perceptual experience to actively – and positively – change the way they saw. It is an argument that aligns Ehrenzweig nicely not only with Cage's thinking but with Herbert Marcuse's in *Eros and Civilization*, a major book for Morris: if we can rid ourselves of repressive mechanisms, we will have a fuller, more just experience of the world. 117

It is worth noting, of course, that Joseph is not proposing that Morris thought that the work he discussed in "Anti Form" or "Notes on Sculpture, Part 4" were "completely immanent and unalienated." In actuality, he thought that the artworks under discussion were partially or temporarily successful at best. ¹¹⁸ As we have seen, this is familiar territory for Serra: he had rejected Cage in giving up painting and was still working through his objections to the composer's thinking in *Animal Habitats, Live and Stuffed*, insisting that art must have structure – no matter how weird and illogical. It is not surprising, then, that Serra should object to Morris's "plea for perceptual wholeness," suggesting that art needs a different yardstick. If Morris had developed his standard, in part, through a "misinterpretation of Anton Ehrenzweig's concept of dedifferentiation" (emphasis mine), perhaps what Serra is suggesting is that better interpretations are possible, even necessary.

Ehrenzweig's writings seem to have entered Serra's circle when Smithson, obsessive reader that he was, introduced *The Hidden Order of Art* to at least Morris and Serra, probably late in 1967 or early in 1968. ¹¹⁹ By this point, Serra's process art was well underway, so Ehrenzweig could not have been the driving force for his work that it was for Smithson's Nonsites. ¹²⁰ Still, "Play it again, Sam" suggests that Serra found

¹¹⁶ Branden W. Joseph, "Robert Morris and John Cage: Reconstructing a Dialogue, in *October* Vol. 81 (Summer, 1997), p. 67.

¹¹⁷ An excellent discussion of Morris's readings of Marcuse can be found in Julia Bryan-Wilson, *Art Workers: Radical Practice in the Vietnam War Era* (Berkeley: University of California Press, 2009), 83-126. Maurice Berger and James Meyer also consider the role of Marcuse in Morris's art. See Berger, *Labyrinths: Robert Morris, Minimalism, and the 1960s* (New York: Harper and Row, 1989) and Meyer, *Minimalism: Art and Polemics in the 1960s* (New Haven: Yale University Press, 2001), 250-51.

[&]quot;At the present time, the culture is engaged in the hostile and deadly act of immediate acceptance of all new perceptual art moves, absorbing through institutionalized recognition every art act. The work discussed has not been excepted." Morris, "Notes on Sculpture, Part 4," p. 69.

Richard J. Williams, *After Modern Sculpture: Art in the United States and Europe* 1965-70 (Manchester and New York: Manchester University Press, 2000), p. 63-70. Morris, too, used Ehrenzweig retrospectively rather than programmatically: he first showed *Untitled (Threadwaste)* in March, 1968, more than a year before "Notes on

Ehrenzweig's writings retrospectively useful in explaining his process works, and has continued to refer to Ehrenzweig's writings even in recent interviews. 121

Looking more closely, it also becomes apparent that there are ways in which Morris at least creatively misread Ehrenzweig. The first of these is that although Morris sometimes talks about dedifferentiated perception as "unconscious vision," he really treats it as an optical phenomenon: an especially relaxed, unfocused field of vision that allows the viewer to assimilate randomness or heterogeneity. It is decidedly a literalist's reading of the psychoanalyst's work, one that ignores the psychological process involved in Ehrenzweig's formulation of dedifferentiated vision, which does not simply allow us to assimilate visual chaos; rather, it is a means of processing information that our conscious minds would understand to be contradictory, categorically confusing, inadequate, illogical, or overwhelming – perverse. ¹²² And while Ehrenzweig writes that "our attempt at focusing must give way to the all-embracing stare" – a phrase that Morris uses as the epigraph for his second section – this giving-way is not a psychically simple affair. To dedifferentiate vision the artist must attack conscious perception, scattering his or her surface sensibilities. Schizophrenics undergo similar attacks but cannot withstand them; the artist is able to find forms for unconscious percepts, making them legible to the conscious mind – where they remain, however, more than the sum of their parts. "It seems that art, almost perversely, creates tasks that cannot be mastered by our normal faculties. Chaos is precariously near."123

The second point on which Morris misreads Ehrenzweig is the role of structure in art, thought, and perception. Morris argues that the art he discusses in "Notes on Sculpture, Part 4" opens itself to undifferentiated vision because, being indeterminate, chance-driven, and essentially without structure, it leaves no place for more limited, conscious modes of perception. Ehrenzweig, however, does not equate unconscious vision with a lack of structure – on the contrary, one of his overarching aims is to refute Freud's contention that the unconscious lacks "proper differentiation of opposites, of space and time, and indeed any other firm structure," contending that this aspect of the mind is instead "merely less differentiated" because it tries "to do too many things at once and cannot afford to distinguish (differentiate) between opposites and to articulate precise space and time." ¹²⁴ The process of dedifferentiation – the conscious effort to achieve syncretistic or undifferentiated vision – is thus not simply one of letting conscious strictures go, as Morris suggests, but more importantly one of allowing the primary process to *structure* perception. ¹²⁵ When it comes to art-making, consciousness or the secondary process has a role to play in giving form to the results of

Sculpture, Part 4" appeared in *Artforum*. Smithson discusses the Nonsites in Ehrenzweig's terms in "A Sedimentation of the Mind: Earth Projects," in Flam, ed., p. 100-113. Originally published in *Artforum*, September 1968.

¹²¹ Hal Foster, "Richard Serra in Conversation with Hal Foster," in *The Matter of Time*, p. 29, 31.

¹²² Ehrenzweig, *The Hidden Order of Art*, especially Part I, Chapter 1, "The Child's Vision of the World," p. 1-20.

¹²³ Ehrenzweig, *The Hidden Order of Art*, p. 31.

¹²⁴ Ehrenzweig, *The Hidden Order of Art*, p. 3-4.

¹²⁵ Ehrenzweig, *The Hidden Order of Art*, p. 19.

undifferentiated perception. Without an active conflict between conscious and dedifferentiated vision, in fact, Ehrenzweig thinks that art will play itself out pretty quickly – a possibility that he considers a real danger for modern art. 126

These aspects of Ehrenzweig's theories may be absent in Morris's writings, but they are very much present in Smithson's. In "A Sedimentation of the Mind: Earth Projects" Smithson uses Ehrenzweig's thinking in an argument against Michael Fried's "Art and Objecthood" (1967). Fried had been alarmed by the artist Tony Smith's response to his drive down the New Jersey Turnpike when it was under construction and had "no lights or shouldermarkers, lines, railings," or any other kind of boundaries. As a result Smith's sculpture became a central target of Fried's argument against theatrical, literalist art. 127 This, Smithson, contends, was a mistake. "Smith was "talking about a sensation, not the finished work of art; this doesn't imply that he is anti-art. Smith is describing the state of his mind in the 'primary process' of making contact with matter. This process is called by Anton Ehrenzweig 'dedifferentiation.'" This sensation, Smithson continued, had to be turned into a work of art through mapping or a "revision of the original unbounded state." Undifferentiated experience matters deeply, then – Smithson essentially calls Fried a coward for his refusal to give into it – but the artist only makes art when there is movement between the "oceanic" feeling that comes from dedifferentiation and "strong determinants" or conscious structures. 128

Smithson thus uses Ehrenzweig to pose the question of what it might mean for an artist to have a syncretistic or primary-process experience with matter, and to formalize this as art. His own answer to these questions — offered in the form of the Nonsites, multimedia, conceptual sculptures that he introduced for the first time in this essay — is typically perverse [Fig. 1.25]. Consisting of photographs of sites such as rundown quarries, altered maps of the sites, and metal bins of rubble, the works make clear that for Smithson the "the 'primary process' of making contact with matter" was something very different from the romantic communion that the phrase might connote. There matter is, in the photographs, all chaotic and unformed – except of course that the photograph both frames it and gives it to us in decidedly secondary form. There it is yet again in the

¹²⁶ Ehrenzweig, *The Hidden Order of Art*, 19, 64, 66, 84. In this respect, Ehrenzweig is very much in sympathy with George Kubler, whose book *The Shape of Time* (New Haven: Yale, 1962) was very important to Morris and Smithson at the time. See also Pamela M. Lee, "Ultramoderne: Or, How George Kublier Stole the Time in Sixties Art" in *Chronophobia* (Cambridge, Massachusetts: MIT Press, 2004), p. 156-217.

¹²⁷ Michael Fried, "Art and Objecthood," in Gregory Battcock, ed., *Minimal Art: A Critical Anthology* (New York: E.P. Dutton & Co., Inc., 1968), p. 130-35.

¹²⁸ Robert Smithson, "A Sedimentation of the Mind: Earth Projects," in *Robert Smithson:* Writings, p. 103. The full text reads, "He [Smith] is talking about a sensation, not the finished work of art; this doesn't imply that he is anti-art. Smith is describing the state of mind in the 'primary process' of making contact with matter. This process is called by Anton Ehrenzweig 'dedifferentiation,' and it involves a suspended question regarding 'limitlessness' (Freud's notion of the 'oceanic') that goes back to *Civilization and its Discontents*. Michael Fried's shock at Smith's experiences shows that the critic's sense of limits cannot risk the rhythm of dedifferentiation that swings between 'oceanic' fragmentation and strong determinants."

gallery, tactile and present – yet contained neatly, absurdly, within its minimalist bin, and viewed in the distinctly coded setting of the art gallery. The maps and geographical titles throw us back on the original sites, but in doing so land us nowhere – we experience the site less as origin than as riddling abyss. ¹²⁹ If the Nonsites model dedifferentiated vision "making contact with matter," then, they do so only to present matter as strange, illogical, and beyond ordinary comprehension.

Serra has described Smithson as "a mirror reflection that drives you crazy every day."130 He was talking about Smithson as a drinking buddy, not describing the relationship between their respective bodies of work, but there too we might find a mix of sympathy and potentially maddening difference. "At low levels of consciousness the artist experiences undifferentiated or unbounded methods of procedure that break with the focused limits of technique": this is Smithson beginning his Ehrenzweigian response to "Anti Form," gearing up for the introduction of the Nonsites. 131 It would also, however, usefully describe Serra's early approach to materials, particularly if one thinks of "undifferentiated or unbounded methods of procedure" in pragmatic, experimental terms. Serra did not go out to quarries or other remote sites in order to engage in "the 'primary process' of making contact with matter"; he lived with the creatures of *Animal* Habitats, Live and Stuffed; he experimented with tons and tons of rubber retrieved from neighboring warehouses; he labored an hour at a time, day after day, making crude latex casts of the floor for Scatter Piece. In each case he followed the materials' behavior, letting it play out as a process until it yielded up something akin to Smithson's "unbounded methods of procedure that break with the focused limits of technique" – methods of production that were not driven by a priori intention, but that were not necessarily formless. In other words, unlike Morris, for whom the point of process was its indeterminacy, its refusal to settle into structure – a refusal he demonstrated most pointedly in the 1970 installation and performance Continuous Project —Altered Daily — Serra used process to structure, and often to structure in ways that put pressure on ordinary experience.

This difference is apparent even in works like *Scatter Piece*, for there is more to it than the lateral spread that Morris admired and Serra came to find so troubling. It is not, for one thing, as thoroughly anti-compositional as Morris's ideal "dedifferentiated" artwork. In both *9 at Castelli* and as installed currently at Dia:Beacon [Fig. 1.22], Serra grouped the cast latex scraps into three main mounds that pile up and spin out simultaneously, quasi-pyramidal forms The cord that cuts across the mounds and interrelates them distances the work from Morris even further, bringing about precisely the kind of part-by-part construction that Morris hoped to avoid in taking "the relationships out of the work." Yet Serra's interest in making *Scatter Piece* as an "open field" work suggests that even here he shared Morris's interest in making art in which the viewer's perceptual experience would be a constitutive element. Serra certainly would have known "Notes on Sculpture, Part 2" – it was published right around the time of his arrival in New York in the fall of 1966, and he was avidly interested in the aesthetic

¹²⁹ See Craig Owens, "Photography *en abyme*," in *Beyond Recognition: Representation*, *Power*, *and Culture* (Berkeley: University of California Press, 1992), p. 16-28.

¹³⁰ Foster, "Richard Serra in Conversation with Hal Foster," *The Matter of Time*, p. 32.

¹³¹ Robert Smithson: Writings, 102.

debates coursing through the magazines – and if he were interested in ridding his work of internal differentiation he certainly would have had frameworks within which to think about doing so. That he did not means that we should perhaps take *Scatter Piece*'s internal differentiations not just as an example of retardataire compositional thinking but more as a proposal: the art work should, *pace* Morris, hypostasize unconscious perception "into a structural feature of the work itself" — and *this* means presenting the viewer not only with optically dedifferentiated stuff but (and ultimately more importantly) with conflicts between different types of experience or perception.

Take the cord, for example, which Serra does not discuss in traditional compositional terms. He has explained that it was, rather, intended to act as a kind of horizon line within the work – an internal measure or articulation of elevation. ¹³² It provides a kind of measure – not one that allows for numerical analysis, to be sure, but one that prevents the viewer, once she is drawn into the work, from becoming lost in it. This is not a work, in other words, that lends itself entirely to the "vacant, allencompassing stare" of dedifferentiated vision. Rather part of the interest is a back and forth, a movement between more and less focused modes of attention.

Scatter Piece also presents us with conflicting types of perceptual experience: it asks us to move between states of envelopment and focus as we enter the "open field" and have our encounter directed by Serra's "horizon line." The work asks us too to move between two different kinds of procedural time, the temporalities of casting one hand and scattering on the other. It asks us, in other words, to experience both space and time in different ways simultaneously. It may not ask these things entirely persuasively – we might take Serra's own frustration with the work as Exhibit A on that point – but it points to a set of issues that would become increasingly important in Serra's work, evolving fairly radically until the installation of *Tilted Arc* and still significant today.

Throughout much of the mid-1960s, what Serra offered up was not so much contradiction as its representation: collage-like juxtaposition, tension between compositional elements and so on. In *Scatter Piece*, though, we can see Serra beginning to make the behavior of his materials more and more active, so that it very nearly enacts contradiction rather than simply miming it. It is with the Props, the subject of the next chapter, that Serra builds contradiction into the actual experience of the works in a manner that makes them perversely affecting. It is this side of Serra's work that Ehrenzweig can be helpful with; if, as the artist tells Foster, there was a "psychological dimension" to his art from the beginning, it was not because the works are emotional, or expressive, or because they engage our impulses to bodily self-identification. Rather, the best of them set up a circumstance the psychological work is all to be done is all on the receiving end, in the work of perceiving and managing seemingly irreconcilable experiences.

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¹³² Author's conversation with the artist, July 8, 2009.

Chapter 2 The Props "In-Formation"

1. At the boundary of the tendency to overturn

In 1971, the Los Angeles County Museum of Art staged an exhibition, *Art and Technology*, that displayed five years' worth of collaborations, facilitated by the museum, between artists and corporations, most in southern California. The museum defined the second term of its title flexibly: the list of artists' collaborators included, among others, businesses involved in the burgeoning computer industry (IBM, Hewlett-Packard), military-industrial supply companies (Lockheed Aircraft, Jet Propulsion Laboratories), technocratic think tanks (the RAND Corporation), and the faltering industrial relic Kaiser Steel Corporation. ¹³³

Richard Serra was assigned to the last of these sites. Over eight weeks during the summer of 1969, he worked with crane operators, arranging six-ton blocks of crop – a by-product of the milling process – into twenty sculptures that ranged from fifteen to thirty feet high and weighed between 60 and 70 tons [Figs. 2.1-2.3]. Massive but ephemeral, each sculpture was erected just long enough to be photographed before being demolished. Serra titled the works — made in Kaiser's Skullcracker Yard — the *Skullcracker Series*. ¹³⁴

The sculptures in the *Skullcracker Series* – especially *Stacked Steel Slabs* [Fig. 2.3] – were a kind of crux for Serra. Though of course he could not have known it at the time, the sculptures looked forward to his later work: it was at Kaiser that he first used steel, which became and remains the primary material of his sculptural project, and there

¹³³ I am summarizing here from two sources: The Archives of the Los Angeles County Museum Archives, *Art and Technology* File, and Maurice Tuchman, *A Report on the Art and Technology Program of the Los Angeles County Museum of Art*, 1967-1971 (Los Angeles: Los Angeles County Museum of Art, 1971), p. 289-304. For more on the exhibition, see Christopher R. De Fay, *Art, Enterprise, and Collaboration: Richard Serra, Robert Irwin, James Turrell, and Claes Oldenburg at the Art and Technology Program of the Los Angeles County Museum of Art*, 1967-1971. Dissertation, University of Michigan, 2005, especially p. 81-135.

¹³⁴ "Skullcracking" is an industry term that refers to the process of breaking off the ends of iron ingots. See Gail Scott, "Text of the Projects," Archives of the Los Angeles County Museum of Art, *Art & Technology* file.

too that he first worked on an industrial scale. ¹³⁵ These developments were necessary precursors to his sculpture's move into the landscape, and thus to the project that Hal Foster has called Serra's "un/making of sculpture." ¹³⁶ But if scale and materials of the Skullcracker Yard both point toward Serra's future, the technique was the one that had dominated his work in the recent past: the Skullcracker sculptures are essentially very large Props. This group of works – initially constructed in lead, beginning with *Prop* in 1968 [Figure 2.4] – represented Serra's effort to make sculpture that involved no permanent or extraneous joints but would stand up using weight, balance, and gravity alone. During the spring and summer of 1969 he propped, stacked, cantilevered, and piled his materials into sculptural form not only in the steel yard but in the galleries of the Whitney and Guggenheim museums. More broadly, the Props were extensions of the process works that had been Serra's focus since 1967-68. "It was basically a studio situation," Serra told Douglas Crimp in 1980, "which happened to be in a steel yard." ¹³⁷

Serra and Kaiser were, in a sense, the oddballs of *Art & Technology*. "The level of technology," Thomas Crow has written, "was not in this case particularly high: by refusing to modernize its equipment, Kaiser was already losing out to more competitive manufactures in Japan...The 'technology' component of Serra's pieces was comprised of nothing more complex than the magnetic cranes used to shift large pieces of metal around the plant." Few observers seem to have found the higher-tech artworks in the exhibition compelling, so the relatively crude mechanisms behind Serra's sculpture would not seem to be automatically problematic. Yet in recent years it has become common to suggest that Serra's commitment to abstract form means that he has long been out of step – that his work has represented a failure to deal with "the contemporary." For Crow the *Skullcracker Series* might be seen as the beginning of Serra's problems in this regard: it looked forward to the artist's production of a "weak" site-specific art, one that "did not seem to have entailed any effort to clarify the site or the circumstance of the

¹³⁵ See "Richard Serra's Urban Sculpture, An Interview by Douglas Crimp," in *Richard Serra: Writings/Interviews* (Chicago: University of Chicago, 1994), p. 128.

¹³⁶ Hal Foster, "The Un/Making of Sculpture," in *Richard Serra: The October Files* (Cambridge, Massachusetts: MIT Press, 2000), p. 175-200.

¹³⁷ "Richard Serra's Urban Sculpture, An Interview by Douglas Crimp," p. 128.

¹³⁸ Thomas Crow, "Site-Specific Art: The Strong and the Weak," in *Modern Art in the Common Culture* (New Haven: Yale University Press, 1996), p. 145.

¹³⁹ Artforum saw fit to condemn the exhibition twice in one issue: Jack Burnham "Corporate Art" and Max Kozloff, "The Multimillion-Dollar Boondoggle," both in Artforum, October, 1971, p. 66-71 and 72-76. See also David Antin, "Art and the Corporations," Art News Magazine, September 71 (p. 23-26, 52-53).

¹⁴⁰ For the purest example of this, see Terry Smith, *What is Contemporary Art?* (Chicago: University of Chicago Press, 2009), p. 7, 44-45, 84-86. The belief that Serra's work is outmoded (and not in a good Benjaminian way) also drives much of Miwon Kwon's *One Place after Another: Site-Specific Art and Locational Identity* (Cambridge, Massachusetts: MIT Press, 2002). That Serra's work is retrograde is also the conclusion of Richard J. Williams, whose *After Modern Sculpture* I discussed in the previous chapter. See "Heavy Metal" (Review of Hal Foster and Gordon Hughes, eds., *Richard Serra*), in *The Art Book* (Volume 8, Issue 4, September 2001), p. 9-11.

art occurring within it (for example, that a plant working to full capacity would probably not have afforded him the room he was using, so the occasion itself was an aspect of decline)."¹⁴¹ By these lights that the *Skullcracker Series* represents another kind of crux, with historical forces pulling the works in two directions as the artist's formal and technical progress emerges – and regressively profits – from political and economic decay.

Crow did not go deeply into the *Skullcracker Series* – ultimately his argument was with Serra's explicitly site-specific works, especially *Tilted Arc* (1981) – but he did point to one additional problem. In his efforts to "defeat the effect of ornamenting a space, either in a gallery or a public setting," Serra managed only to perpetuate "the half-measures of Minimalism." Crow listed a few such half-measures; Serra's, it would seem, rested largely in his sculptures' substitution of a "domineering scale" for any articulation about their conditions of production or viewership: instead of making meaning of those conditions the *Skullcracker* works arrogantly asserted their will over them. It is series, "Crow writes "collectively entitled *Skullcracker*, Serra transferred the precarious structural principles of leaning and propping from the scale of a gallery to a monumental one." The words "precarious" and "monumental" do not sit together comfortably; when prefaced with cracking skulls they imply a distinct threat.

If Crow gestures towards these problems, Anna Chave presents them in a similar if characteristically more vehement argument.

The paradigmatic relation between work and spectator in Serra's art is that between bully and victim, as his work tends to treat the viewer's welfare with contempt. This work not only looks dangerous, it *is* dangerous: the "prop" pieces in museums are often roped off or alarmed and sometimes, especially in the process of installation and deinstallation, they fall and injure or even (one occasion) kill. Serra has long toyed with the brink between what is simply risky and what is outright lethal, as in his *Skullcracker Series: Stacked Steel Slabs* of 1969 which consisted of perilously imbalanced, 20-to-40-foot tall stacks of dense metal plates... Serra's ambitious expansion of the once-moderate scale of the Minimalist object was, together with his fascination with balance and imbalance, is central to his work's concern with jeopardy, and crucial to its menacing effect. Judging by his own account, what impelled Serra to make ever bigger works in ever more public spaces was never an interest

¹⁴¹ Crow, "Site-Specific Art," p. 146. "Strong" site-specific works include Michael Asher's 1970 installation in the Pomona College art gallery as well as Gordon Matta-Clark's *Window Blowout* (1976) and building cuts.

¹⁴² Crow, "Site-Specific Art," p. 131, 135. Crow makes this point not only about Serra but about all practitioners of "weak" site-specificity; he also mentions Walter de Maria in passing.

¹⁴³ Crow, "Site-Specific Art," p. 133. "This preoccupation [with defeating the ornamental] had led the older cohort of Minimalists to various heroic exertions, either of Zen-like renunciation, domineering scale, or defiant incoherence."

¹⁴⁴ Crow, "Site-Specific Art," p. 146.

in the problems of making art for audiences not fluent, let alone conversant, in the difficult languages of modernist art, but rather a consuming ambition, a will to power. 145

There is a good deal of room between Crow's implication and Chave's excoriation – his suggestion that Serra's weak site-specificity is in bad faith is considerably subtler than her analysis of Serra's "will to power" – but both arguments present Serra's work as combining literalist aesthetics and physical threat and thus just *being* threatening. The question I wish to ask of the Props, though – *Skullcracker* series and beyond – is whether they might be understood not simply to threaten but to articulate something *about* threat.

The most nuanced position on such matters comes from Alex Potts. In *The Sculptural Imagination*, Potts noted Serra's predilection for aggressive titles – in 1969 we have not only *Skullcracker* but *Strike* – and acknowledged that there is much "in his work to feed the idea that it is aggressive and intrudes forcibly on the viewer's space." Yet Potts did not see the work as being given over totally to violence. He was somewhat skeptical of claims on Serra's part such as "I'm not interested in confrontation per se, and I'm not interested in obstruction per se," since they are generally made retrospectively and perhaps defensively. Mild skepticism notwithstanding, though, Potts took Serra seriously as the artist continued: "I'm interested in the particular relationships that I conceive to be sculptural in a given context and in pointing to whatever the manifestations of those sculptural attributions are." As Potts points out, rather than deny the works' rhetorical charge here, the artist insists that form is the primary issue. For Potts, this gets at something important about the medium of sculpture. Serra, he wrote,

was making an important point about the situation that develops when a viewer becomes closely engaged by a work of sculpture and is immersed in the interactions created by looking at it intently. However dramatic the first facing up to a work might be, whatever sense of threat or monumental assertiveness it might generate in the initial few seconds of encounter, this inevitably wears off after a period of time...A significant feature of work such as Serra's is the unstable fluctuations it can produce between a flagrantly psychologised response and a strictly formal one. ¹⁴⁷

The result of this dynamic, Potts argued, is that Serra's sculptures are psychologically ambiguous, both muted and dramatic in their effects.

In some important respects, this analysis seems right. It takes seriously both the form and the aggression of the works, neither allowing their tone to hide behind their form (compare Rosalind Krauss, who argues that it "matters very little that the scale of"

¹⁴⁵ Anna Chave, "Minimalism and the Rhetoric of Power," *Arts Magazine*, January, 1990, p. 58.

¹⁴⁶ Robert C. Morgan, "Interview," *Richard Serra: Writings/Interviews*, p. 188.

¹⁴⁷ Alex Potts, *The Sculptural Imagination: Figurative, Modernist, Minimalist* (New Haven and London: Yale University Press, 2000), general discussion p. 264-66, passage quoted p. 266.

Stacked Steel Slabs "is vastly over life-size") nor trumping (mere) form with moral objections to its rhetoric. ¹⁴⁸ There is a real value, too, in Potts's arguments that, first, these aspects of Serra's sculpture are distinct but brought together in an extended sculptural encounter as the viewer moves between one mode of attention and another, and, second, that each of these aspects becomes compelling largely as a result of the other. ¹⁴⁹ Holding form and rhetoric apart but arguing for the reciprocal relationship between them keeps them both active without allowing the discussion to collapse into simple iconography ("the Props are *about* violence"). For Potts, though, the primary significance of that reciprocity is that it makes the sculpture engaging. I agree that it does, but I do not think that is that *all* it does. Rather, I think it is possible – especially in the case of the Props and the other *Skullcracker* works – to underscore this reciprocity in order to think too about how the sculpture signifies, to put some specificity and substance behind the "rhetorical charge."

Certainly, there a good deal specifically to say about the force of the *Skullcracker* works, which Serra by no means attempted to minimize. He seems to have been almost destined – or determined – to end up working in the yard after which the works were named.

The first day I built a cantilevered work from slabs stacked up forty feet which tilted twelve feet off axis. It leaned as far as it could while remaining stable. It was at the boundary of its tendency to overturn. The yard crew knocked it over after the day shift ended; I put it up the next day. This time it remained up through the swing shift but they knocked it down on the night shift. I guess they were threatened by the precariousness of the construction. Finally they moved me to what they called the Skullcracker yard, which was a big open space with an overhead magnetic crane. 150

Despite his offhandedness, Serra does not deny that the actions of the yard crew and the night shift were reasonable. Yet he wanted to avoid actual collapse – very much unlike one of his closest friends, Robert Smithson, who produced *Asphalt Rundown* (1969), *Glue Pour* (1969), and *Partially Buried Woodshed* (1970) [Fig. 2.5] within six months of Serra's work at Kaiser. Serra may have been practicing a scary brinkmanship, but as his comment about working at "the boundary of the tendency to overturn" makes clear, he meant to stay on the brink and explore what was possible there.

Stacked Steel Slabs offer a good opportunity to think about how Serra's "un/making of sculpture" developed – and beyond that, how his sculpture signifies. By and large, such questions have been addressed through interrogations of site-specificity.

¹⁴⁸ Rosalind Krauss, "Richard Serra: Sculpture," p. 115.

[&]quot;Without a specific effect of scale, without a particular shaping of space, there would be no domination or threat – but equally the effect of scale, the shaping of space are not necessarily invested with threat, may indeed induce a certain calm and equanimity, which however would lack charge without the incipient suggestion of powerful intrusion on one's felt sense of ambient space." Potts, *The Sculptural Imagination*, p. 266.

¹⁵⁰ Crimp, "Richard Serra's Urban Sculpture," p. 128.

But it was not until after the summer of 1970, when Serra visited the Zen gardens of Kyoto, that he really began working to make sculpture that would include the site experientially. True, *Splashing* (1968) and the other thrown lead works may have been inextricable from their sites, but this fact did not feature prominently in their contemporary theorizations, which tended to focus instead on their impermanence and the "dematerialization" of the art object. True again, the tone of the *Skullcracker Series* derives largely from the steel yard, and they could not have been made anywhere else – but one might say analogous things about most sculpture (a bronze could only be made in a foundry, marble must have its origins in a quarry, et cetera). Compare this to Serra's aims for *Shift* (1970-72), a work he executed in a field in King City, Ontario: "What I wanted was a dialectic between one's perception of the place in totality and one's relation to the field as walked." At Kaiser, though, Serra was not yet concerned with how his work might relate to the place as a totality. In considering how *Stacked Steel Slabs* might signify, then, Crow is right – such models of site specificity do not help much.

Yet this need not mean the works are ahistorical, siteless in a more general sense. In "The Un/making of Sculpture," Hal Foster quoted Serra who was, in turn, paraphrasing Bertrand Russell: "Every language has a structure about which one can say nothing critical in that language." Serra was originally referring to his use of drawing to "say things" about sculpture; Foster argued that Serra also takes a "medium-differential approach" in order to use sculpture to critique the languages of painting and architecture. By insisting on its own sculptural terms, Foster argued, Serra's art reveals the characteristics and ideologies of other media; its inward pressure becomes an outward pressure. The proposal that I want to make about *Stacked Steel Slabs* and the Props more broadly is this: let us take it as a given that the formal language of abstract sculpture was

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¹⁵¹ See, for example, Philip Leider, "The Properties of Materials': In the Shadow of Robert Morris," *New York Times* (December 22, 1968), II, 31 and Max Kozloff, "9 in a Warehouse," *Artforum* February, 1969, p. 38-42. Douglas Crimp later emphasized *Splashing's* site-specificity, but this was at the height of the *Tilted Arc* controversy. See Douglas Crimp, "Redefining Site Specificity," in *Richard Serra: The October Files* (Cambridge, Massachusetts: MIT Press, 2000), p. 146-49.

¹⁵² Serra, "Shift," in *Richard Serra: Writings/Interviews*, p. 11. Originally published in *Arts Magazine*, April 1973.

Writings/Interviews, p. 173. Originally published in the exhibition catalog Richard Serra: Recent Sculpture in Europe 1977 -1985 (Bochum: Galerie m, 1985). The text continues: "There must be another language dealing with the structure of the first and possessing a new structure to criticize the first." This is a very slight rephrasing of a statement Serra made to Peter Eisenman in a 1983 interview: "Every language has a structure about which nothing critical in that language can be said. To criticize a language, there must be a second language dealing with the structure of the first but possessing a new structure." See "Interview," in Richard Serra: Writings/Interviews, p. 146. Originally published in Skyline, 1983. Verbatim or near-verbatim repetitions of earlier statements appear in Serra's writings and interviews a good deal. I will discuss another such instance later in this chapter. Foster's discussion of this statement appears in "The Un/making of sculpture," p. 182.

Serra's primary concern, but also that we need not conclude that this language is limited to communicating about adjacent media. We can think instead about ways in which the language of sculpture can be made to speak critically – differentially – about other forms and forces. Building on both Potts and Foster, I will look at the ways in which the aggression of Serra's works, rather than being an expression of violence or of a personal will to power, could be *for* or *about* something. More specifically, I will argue that the discordance between Serra's work in Kaiser's steel yard and the other work in *Art & Technology* was not simply an indicator of industrial atavism in an increasingly postindustrial world, but a critical negation.

Certainly, there was much in Art and Technology that any artist who opposed the Vietnam War might wish to negate. Norris Industries, Lockheed, Jet Propulsion Laboratories, Hewlett-Packard, the RAND Corporation: all of these companies were involved either materially or conceptually in the war's perpetuation. 154 Between the inception of Art and Technology in 1966 and its installation in 1971, Max Kozloff pointed out in Artforum, "there occurred the My Lai massacre, the Chicago Democratic Convention riots, the assassinations of Martin Luther King and Robert Kennedy, the invasion of Cambodia, and the student killings at Kent and Jackson State." Serra certainly would have been aware of all of this, and more or less on Kozloff's side, at least when it came to diagnosing the historical situation — in 1967 he had participated in Angry Arts Week, which Kozloff, among others, had organized to protest the war. 156 Artist and critic differed, though, in their understandings of how artists should respond to the war: Kozloff was outraged that the artists in Art & Technology would collaborate with the "technofascism" driving the war. By contrast, Serra has rarely combined art and protest, either through participation or withdrawal. He had an uneasy relationship with the antiwar Art Workers' Coalition – Lucy R. Lippard described him, along with Smithson and Philip Leider, as "sightseers" and the organization's "bane and to some extent [its] downfall" — and he has always insisted on the distance between political and artistic work. 157

After completing the *Skullcracker Series*, Serra submitted an artist's statement to the museum. As it appears in LACMA's archives it is several paragraphs long; one of these passages is reproduced, with minor alterations, in the exhibition catalog.

¹⁵⁴ For more on the politics of *Art and Technology*, see Pamela M. Lee, *Chronophobia: On Time and Art in the 1960* (Cambridge, Massachusetts: MIT Press, 2004), p. 9-23.

¹⁵⁵ Max Kozloff, "Multi-Million Dollar Art Boondoggle," *Artforum*, October 1971, p. 76. ¹⁵⁶ Francis Frascina, *Art, Politics, and Dissent: Aspects of The Art Left in Sixties America*. (Manchester and New York: Manchester University Press), 1999, p. 114-15.

¹⁵⁷ For Lippard, see Francis Frascina, *Art, Politics, and Dissent*, p.41. Serra has produced political posters – his 2004 *Stop Bush* was in the 2005 Whitney Biennial – but despite its presence in a museum he does not consider it part of his artistic project. "I didn't think of that as an artwork, he told of *New York Magazine*. "I was just pissed off. And I'll do it again for the next election – probably for Obama and against Giuliani." Karen Rosenberg, "Richard's Arc: How Serra Went from being a Steely Pariah to New York's Favorite Sculptor," in *New York Magazine*, May 17, 2007. (To my knowledge, these last two projects did not happen.)

Technology is a form of toolmaking, body extension. Technology is not art and not invention. It is a simultaneous hope and hoax. It does not concern itself with the undefined, the inexplicable. It deals with the affirmation of its own making. Technology is what we do to the Black Panthers and the Vietnamese under the guise of advancement in a materialistic theology. ¹⁵⁸

Most likely neither Kozloff nor Lippard would have seen it this way, but when Serra began a 1974 interview with Liza Bear he repeated this text, saying that it reflected his "political responsibility to the public. 159 Such word-for-word repetition is not uncommon for Serra when he feels he has gotten something right, and I will address this particular return later as this chapter progresses. For now, I will let that repetition stand as a testament to this statement's status within his thinking: it is not intended casually; Serra felt that his political responsibility *vis à vis Art & Technology* mattered. A first effort at characterizing that responsibility might go like this: the artist must insist on technology's status as an ideological force, on its materialistic limitations, and on its failure to deal with any realm of experience that cannot be calculated, analyzed, or predicted.

The text does not tell one much, at least not immediately, about how to think about the *Skullcracker* works. It is even rather withholding in its presentation of how the artist thinks about art. "Technology is not art and not invention": this is all we get. Art becomes a kind of absence that puts pressure on technology, or if it is a presence, it is one that serves only to negate. The relationship, in other words, is differential: art – or let us say sculpture, since that is what Serra made at Kaiser – is a language in which it becomes possible to say something critical about technology, and specifically about techniques of physical and ideological violence. The question then becomes, if *Skullcracker* uses the language of negation, what does it say? In examining this question, it is necessary to step back: these works come at the midpoint of a year in which Serra worked intensely on a sculptural language of propping, and that development came with much thought and theorization on the artist's part.

2. The formation of the Props

"To prop" appears nowhere in *Verb List*. It is somewhat tempting to take its absence as a sign that Serra had plunged into the list's actions and come out the other side: process is over; let sculpture begin! To make such assumptions would be wrong, though; Serra propped lead in largely the same spirit that he had rolled it, cast it, splashed it, and torn it, aiming to deemphasize the art object in favor of the actions that had produced it. It remains a tempting claim nonetheless, because Serra's sense of his own project changed with the propped lead sculpture *One-Ton Prop (House of Cards)* (1969) [Fig. 2.6]. "Even though it seemed like it might collapse," he told Foster in 2004, "it was in fact freestanding. You could see through it, look into it, walk around it, and I thought,

¹⁵⁸ Los Angeles County Museum Archives, *Art and Technology* File. The catalog version leaves out the sentence about technology being "hope and hoax."

¹⁵⁹ Liza Bear, "Prisoner's Dilemma," in *Richard Serra: Writings/Interviews*, p. 19. Originally published in *Avalanche Newspaper*, May 1974.

'There's no getting around it. This is a sculpture'...I knew it was a sculpture. I couldn't play around anymore; it wasn't a question of neither/nor." The Props, then, are a kind of special moment in Serra's development: in devoting his attentions to them his identity passed, at least in his own eyes, from the popular sixties catch-all "artist" to a practitioner of a particular medium. This is not to say that he worked exclusively in that medium, but that it assumed priority: when drawing became a significant part of his *oeuvre* in the early 1970s it was in part because it gave Serra language through which speak critically about sculpture. Later in this chapter I will argue that he used video in a similar way, and the third chapter will address ways in film served the same basic ends.

Early in 1969, though, the transition had yet to take effect. In the first couple weeks of the year, Serra's first Prop - Prop – was on view, having been installed in Leo Castelli's warehouse for 9 at Castelli since December 21st of the previous year. A fivefoot-by-five-foot plate of lead pinned to the wall by an eight-foot-long lead pole – a plate similar to the one on the wall but larger and rolled up -Prop represented a continued working-through of two of the ideas Serra had explored in rubber (as discussed in the previous chapter). The first of these was the one encapsulated by *Verb List*: treating the straightforward, procedural transformation of materials as an art activity. Lead had come to Serra's attention because the musician Philip Glass, then working as his studio assistant, was also supporting himself by working as a plumber. 161 Like rubber, lead could be manipulated by hand fairly easily: one of his first experiments with the material - Tearing Lead from 1:00 to 1:47 (1968) [Fig. 2.7] began with a plate like the one Prop holds against the wall, which in this case was placed on the floor so that Serra could tear its edges away, strip by strip, leaving a pile of lead ribbons in each corner and a diminished lead square in the middle. 162 In other cases, he simply rolled it. "The interval between the thickness of the concentric circles, how many and how large, defined the form. Drawing was implied in the activity. The making of the form itself, whether lead rolls or poles for the *Prop Pieces*, was implied in the drawing within the physical transformation of material from one state to another." ¹⁶³ In some cases, this resulted in works whose principle qualities are represented well by Serra's laconic, descriptive titles:

¹⁶⁰ Hal Foster, "Richard Serra in Conversation with Hal Foster," *The Matter of Time*, p. 30.

¹⁶¹ "Oral History interview with Chuck Close, 1977 May 14-Sept. 30," Archives of American Art, Smithsonian Institution.

¹⁶² In 1969 Robert Pincus-Witten, by then an acquaintance of Serra's and a colleague at Queens Community College, noted that *Tearing Lead* also continued the interest in the writings of Anton Ehrenzweig that first arose in the rubber works. Writing that he was paraphrasing Serra, he said: ""parallel to 'the concerns of Anton Ehrenzweig, such as 'dedifferentiation,' 'scanning,' 'scattering,' and 'synchronistic vision." They "reject the final image, for, were the work carried to its inevitable conclusion, it would arrive at a point and an instant in time beyond which further tearing is impossible. Serra brings our attention to both this sense of time-shift and to the physical procedure itself." See "Slow Information," in *Artforum* (September, 1969), p. 36.

¹⁶³ Richard Serra and Lizzie Borden, "About Drawing: an Interview," *Richard Serra: Writings/Interviews*, p. 51. Originally published in the exhibition catalog *Richard Serra: Tekeningen/Drawings*, 1971-1977 (Amsterdam: Stedelijk Museum, 1977).

Double Roll, Thirty-five Feet of Lead Rolled Up (both 1968, as are the other lead rolls discussed here). Others forms turned out to be more evocative: on the one hand there is the squat, matter-of-fact Bullet, on the other, the relatively lyrical triple round of Slow Roll: For Phillip Glass [Fig. 2.8]. In Prop, the results of the rolling were in themselves quite neutral, yielding a functional object whose job is to hold up the plate. This leads us to the second idea that Serra carried over from his rubber works, that of using gravity to structure materials, transforming a downward pull into an upward thrust. The reversal is more pronounced here than in the rubber works (discussed in the Chapter One), but its cause is more or less the same.

Prop generated one strain of the Props' visual language, one that was on view most comprehensively in the exhibition *Theodoron: Nine Young Artists* at the Guggenheim Museum during the May and June of 1969 [Fig. 2.9]. There seven Props, each dated the year of the exhibition, lined two of the museums bays; each piece was in one way or another, wall-bound. Some met the wall in rather daring ways: *Shovel Plate Prop* [Fig. 2.10] thrust a low, horizontal plate toward the space of the Guggenheim's atrium, its weight supported from above by a thick lead roll that bore down on the plate with its diameter line and met the wall at a single point. *Sign Board Prop* [Fig. 2.11] reversed this presentation: here too a lead plate seemed to float out from the wall, but this time the pole that supported it— easily visible from the side—angled down from the center back of the plate to the juncture of the wall and the floor down below.

Together, these Props served as a kind of laboratory in which Serra worked towards the medium-differential approach that Foster speaks of. The first medium under question was again, architecture. Their proposal was similar to the one Douglas Crimp found in to Splashing [Fig. 2.12], a work first made and shown right next to the first *Prop.* By "effacing the line where the wall rose up perpendicular to the floor," Crimp wrote, "Serra was obscuring a marker for our orientation in interior space, claiming that space as the ground of a different kind of perceptual experience." ¹⁶⁴ The Props also effaced this line, though not as intimately as *Splashing*, and their effect on our perception was more complex and more immediate, as they put a more insistent pressure on our bodily experience of space. This pressure will bear further discussion later on; in these works, though, Serra was not fully convinced with the means by which he had brought it about. His problem stemmed from these Props' too-close, insufficiently differential relation to the second medium Foster addresses in "The Un/Making of Sculpture," painting. These wall-bound works, Foster points out – like Yve-Alain Bois and Rosalind Krauss before him – troubled Serra because the plates' placement in front of the wall (however much the poles may have rerouted them in some cases) tied them to the pictorial tradition, the history of painting, and easily rationalized Gestalt forms. 165 And indeed, with the exception of a few works – especially the vertiginous *Close Pin Prop*

¹⁶⁴ Douglas Crimp, "Redefining Site Specificity," in *Richard Serra: The October Files* (Cambridge, Massachusetts: MIT Press, 2000), p. 158.

¹⁶⁵ See Hal Foster, "The Un/Making of Sculpture," in *Richard Serra: The October Files*, p. 177; in the same volume see Yve-Alain Bois, "A Picturesque Stroll around *Clara-Clara*," p. 59 and Rosalind Krauss, "Richard Serra: Sculpture," p. 107. The Guggenheim, of course, presents a special problem: if an artist is assigned a space in one of its bays there is really no choice but to orient the work toward the walls.

[Fig. 2.13], which propped only rolls and no plates¹⁶⁶ – the Guggenheim Props have the collective appearance of a meditation on the problem of how to get painting off the wall. Their relationship to painting, then, also undercut their ability to bring architectural experience into question: how much can they truly derange space if they are so easy to conceive in relation to pictorial conventions? The critical response to *Nine Young Artists* seems symptomatic of the problem: writing in *Artforum*, both Robert Pincus-Witten and Emily Wasserman concluded that the Props were essentially didactic, and that their appearance did not matter very much.¹⁶⁷ They were not just conceptual works, but they were dangerously close.

A few weeks after the Guggenheim exhibition opened, though, Serra put an alternative to the wall-bound Props on view. One-Ton Prop (House of Cards) appeared in the Whitney Museum's exhibition Anti-Illusion: Procedures/Materials, which opened in late May. We have already witnessed Serra's certainty that *One-Ton Prop* was *sculpture*: his concurrent struggles with pictorial space suggest one reason why this would have mattered so much to him. As Foster points out, Serra "still asks the ur-modernist question 'What is the medium?,' but his responses cannot deliver an ontology of sculpture in modernist fashion...Today 'sculpture' is not given beforehand but must be forever proposed, tested, reworked, and proposed again." The terms that Foster considers up for revision in Serra's work more generally are corporeality, temporality, and site: all important issues, since sculpture is the art form that stands in one's way, takes time to move around, and maintains an important connection to its immediate surroundings. Foster's list takes its cues mostly from later works in which the variables of sculptural experience derive more explicitly from the viewing subject rather than the art object, and in which the relationship to the site is paramount (these works will be a central focus of Chapter 3). One-Ton Prop does not open sculpture up so radically – the viewer still relates to it as an object, another point that Serra came to find problematic – and in some respects this means that its critiques of the sculptural tradition and its stakes are all the more legible.

3. "An in-formation time"

One way in which *One-Ton Prop* intervenes in sculptural tradition is to require a revision in our understanding of form. With its Neoclassical foundations, sculptural theory privileged the medium as being the best able to convey the formal ideal. ¹⁶⁹ By 1969, of course, the idea that sculpture was truly able to communicate "pure form" had already come under serious questioning from the minimalists. But if they opened formalist idealism up to the contingent environment (like Robert Morris) or "mechanized" it to the point of absurdity (like Sol LeWitt) they nonetheless did so using

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¹⁶⁶ The title is not a misspelling but a pun – like Glass, Chuck Close participated in the Props' installation. See Chuck Close, *The Portraits Speak: Chuck Close in Conversation with 27 of His Subjects*. (New York: A.R.T. Press, 1997), p. 61.

¹⁶⁷ Emily Wasserman, "New York," *Artforum* (September, 1969), p. 58. In that same issue see Pincus-Witten, "Slow Information," p. 38.

¹⁶⁸ Hal Foster, "The Un/Making of Sculpture," in *Richard Serra* (October Files), p. 176.

¹⁶⁹ Alex Potts, *The Sculptural Ideal* (New Haven: Yale University Press, 2000), p. 2-3.

the visual language of geometric rationality. As a result minimalism – so Serra felt, anyway — was left with a kind of idealist hangover. One-Ton Prop responds to this problem. It consists of four sheets of lead, each four-by-four feet, propped against each other without any fixed joints and so able to stand freely in the room. The plates come together to approximate a cube, but one that is suspended in flux: structurally unfinished (if it came together at perfect right angles it could not stand), and threatening collapse. One-Ton Prop thus seems to level a very pointed objection at this most basic of minimalist forms and with it at any idealism that lingered in sculptural aesthetics: the cube, Serra's sculpture seems to announce, can no longer rest easy, foursquare in its solid Gestalt. Its geometry, and more importantly whatever worldview might be built on that geometry's foundation, is contingent and imperfect: a proposal that cannot be achieved.

During the next phase of the Props' development – which he initiated in Kaiser Industries' Skullcracker Yard – Serra pushed the idea of form increasingly towards the provisional. Working for eight weeks beginning on July 21, he began his experiments in steel using the same structural principle that operated in *One-Ton Prop*, leaning overlapping plates against each other so that they would be mutually supporting. *Inverted House of Cards (Skullcracker Series)* [Fig. 2.14] is more stable than its forebear, pinwheeling out from the core that One-Ton Prop leaves precariously vacant. But it is, if not exactly the exception among the works Serra made at Kaiser, then certainly far from their most iconic representative: that position is occupied by Stacked Steel Slabs (Skullcracker Series) [Fig. 2.3]. This work was striking because it differed not only in its tone (this is the work that Chave and others find so objectionably threatening) but its principles of construction. It is stacked, but not in a simple straight-up-and-down pile. Serra had the crane operators place each slab of steel crop so that it would slant slightly from the vertical, but was cognizant too – and this ended up being the important technical advance – that he must also use the weight of each new slab to pin the lower ones to their axis. The series, he explained to the museum, "involved the possibilities of constructing with weight, i.e. gravitational balanced weight overhead as support. This series was further abstracted with the resultant lead structures made in New York in the fall."171

Those works – produced in the autumn, they debuted at Serra's first New York solo show, which opened at Castelli's Warehouse in December of 1969 — include 5:30, V+5 (To Michael Heizer), 1-1-1-1 and 2-2-1 (To Dickie and Tina) [Figs. 2.15-2.17]. In the last of these two titles, the numbers refer to the number and groupings of the lead plates. In 2-2-1, one plate (1) stands nearly perpendicular to two pairs of plates (2-2); in each of these pairs the plates are lined up almost end-to-end. Because the plates in the two pairs only almost touch, there is space enough between them to rest a lead roll — the one element not noted in the title, but on which the entire structure depends — in between their upper corners. Because the pairs are only nearly perpendicular to the single plate, that is, because they lean a couple of inches away from the vertical axis, they have to ram the suspended roll into the single plate's upper near corner. The sculptures' refusals of right-angled geometry are subtle enough not to be immediately obvious: the fact that two pairs are off-axis dawns on the viewer somewhat slowly, disbelievingly, and

¹⁷⁰ As discussed in the previous chapter, Morris too spent much of the later sixties diagnosing and working to expunge that idealism.

¹⁷¹ LACMA Archives, Art and Technology Folder.

nerve-wrackingly; the paradoxical conviction that being so off-kilter is both a matter of structural necessity and a cause of instability comes, naturally enough, more haltingly still.

Serra has insisted that these Props (and the rest of his works) depart from the Constructivist tradition. Purely compositionally they seem to have their roots in the work of Vladimir Tatlin and to carry echoes of intermediaries such as David Smith, but Serra insists that such linkages are inappropriate because the sculptures are not *determined* through the usual compositional means: instead "They were solely based on an axiomatic principle of construction, where everything was holding everything else up simultaneously." Viewing each sculpture, the rather tentative process I just described – coming to understand *how* everything holds everything else up – becomes a kind of perceptual conversion. In *2-2-1*, for example, we might begin by perceiving the central pole as dividing the sculpture visually, and end up focused on the way that it holds the work up structurally. The work's formal aspects – if by these we mean its shape, proportion, and visual rhymes and rhythms – become somewhat disarticulated from its mechanical behavior.

It is useful to maintain some sense of that split; such divisions, to return to Alex Potts, define the experience of sculptural viewing: "one is constantly renegotiating one's relation with the work, not only by physically moving round it, but by shifting between different modalities and focuses of attention." 173 Rather than taking these shifting conditions as being automatic to sculptural viewing, the Props seem to insist on them: form and function are situated oddly, and so noticeably, in different realms of experience Yet as Potts points out the different experiences offered by sculptural viewing are mutually informing; in the case of the Props the visual dynamism that tempts comparisons to Malevich and Tatlin is reinforced and further enlivened by the sculptures' precarious mechanics (this is one reason that it does not seem absurd to apply adjectives like "balletic" to works like 2-2-1 and V+5 [To Michael Heizer], despite their elephantine weight). And of course, the sculptures would not assume the particular arrangements they do except as a function experiments with the mechanics of propping, so in a sense their form is thoroughly knitted to their mechanics. Serra made this clear when he told Liza Bear that he was pleased with One-Ton Prop because it "satisfied all the problems of what an aesthetic solution could be without having to go outside the limitations and counterlimitations that it set up for itself."¹⁷⁴ The limits were not those of form as traditionally conceived; they were technical, although the technique in question did nothing other than create and then actively sustain a certain form.

The Props, then, make it rather difficult to pin down where exactly formal experience lies. In doing so they do not necessarily counter Serra's argument – one iteration of which Potts presented above – that his sculptural concerns are primarily formal. They may, however, require us to think about "form" in an expanded sense, one that includes more than matters of shape, proportion, arrangement, and so on. "I wouldn't call these works 'objects in process," Serra told Peter Eisenman, "because I don't think

174 "Interview by Liza Bear," in *Richard Serra: Writings/Interviews*, p. 47.

¹⁷² Liza Bear, "Interview," in *Richard Serra: Writings/Interviews*, p. 47.

¹⁷³ Alex Potts, *The Sculptural Imagination*, p. 266.

of the works themselves as performing."¹⁷⁵ Performance implies a division between actor and action; Serra implies here that *One-Ton Prop* is not a disarticulated cube that is *doing something* (standing, propping, et cetera); the form is the continuous coming-into-being of that shape. Rather than a shape that performs, what we have is a form that is inseparable from action.

We might find a model for such an understanding of form in Dan Graham's "Subject Matter," a 1969 essay originally intended as a book meant to accompany an exhibition organized by John Gibson on "ecological art," which was derailed by Graham's intense experience of *Anti-Illusion* (the exhibition where *One-Ton Prop* was first shown) and, among other things, conversations with Serra. ¹⁷⁶ The essay addresses Dan Flavin, Carl Andre, Donald Judd, Steve Reich, Bruce Nauman, and Serra, discussing approvingly the shift in attention from sculptural object to moving and viewing subject that is apparent in the work of the latter three artists. The section on Serra begins with *Verb List*; Graham writes: "A specific activity performed upon a specific material is available to the viewer as a residue of an in-formation time (the stage of the process described in applying the verb action to the material)." In reading the resulting works, Graham writes – taking as his example the 1967 rubber sculpture *Slight of Hand* (since renamed *To Lift*) [Fig. 2.18] – "the viewer goes first to the declarative "how" of it and then back to the visual-materialness of the in-formation in which one reads the situation." ¹⁷⁷

In its particulars, the argument that Graham makes about Serra's work is a bit confusing; "Subject Matter" was rejected both by *Artforum* and *Arts* magazine for lack of clarity and finally self-published by Graham in the book *End Moments*. Serra, however, must have felt that parts of the text reflected his position reasonably well; he republished the first passage quoted above – the one about the "residue of an in-formation time" — in a two-page graphic spread presenting his films and videos in the Winter 1971 issue of *Avalanche*. ¹⁷⁸ Graham's discussion of "residue" pertains more to the process works that came before the Props, since in these works the "in-formation time" is not residual but ongoing; Serra has propped the sculptures, and they continue propping themselves when the viewer encounters them. Yet the notion of "in-formation time," and "in-formation" more generally – a term that appears frequently in "Subject Matter" and other writings by Graham around this time – remains quite useful. To say that *One-Ton Prop* is "information" means that the sculpture represents a kind of limited and tactical formalism, one that is too shifting to aspire to an ideal. It means, too, that time and action were inseparable from "form" from the sculpture's inception.

To say that *One-Ton Prop* is "in-formation" is also to position it, however ambiguously, in relation to information technologies. Information – minus the hyphen – was also a frequent subject for Graham in the late sixties and early seventies. For the

¹⁷⁵ "Interview by Peter Eisenman," in *Richard Serra: Writings/Interviews*, p. 144.

¹⁷⁶ See the note at the end of the essay in *Rock My Religion*. Brian Wallis ed., *Rock My Religion: Dan Graham 1965-1990* (Cambridge, Mass.: MIT Press, 1993), p. 50. The essay was originally published in *End Moments*, 1969 (n.p.).

¹⁷⁷ Dan Graham, "Subject Matter," in *Rock My Religion*, p. 44.

¹⁷⁸ The untitled spread appears in the magazine's "Documents" Section. *Avalanche* (No.2, Winter 1971), p. 20-21.

Fall-Winter 1970-71 he co-edited a special issue of *Aspen Magazine*, "Art / Information / Science," working with George Maciunas to curate a group of artist projects. Graham wrote the editorial note. The issue, he suggested, would be an artists' redefinition of the magazine's role in art and the larger world. The specific proposal was, however, rather ironic.

ONE PROPOSAL: (might be:) an issue (a sort of *art and technology* exhibition) on the subject of INFORMATION, whose constituent units would function doubly: as advertisements for designated *information-media* (computer-data-processing, network TV, radio, telephone, *think tank*, dating service, duplication) companies and also as works of art. Artists (musicians, writers, artists, dancers) would be selected and arrangements made with various companies for participation in in-forming a work. This arrangement would serve a twofold function: the artist might help the corporation in establishing its corporate image while the corporation might help the artist in freeing some of the limitations in relation to the reader and socio-economic frameworks.¹⁷⁹

Graham himself did make artworks that were advertisements – among them *Figurative* (1965) and *Detumescence* (1966). This proposal thus has the ring of viability – but it is undercut by an undercurrent of satire. Graham's claims for "art and technology" collaborations, delivered with mock-triumphalism, are essentially identical to the objections that Kozloff and other critics, such as David Antin and Jack Burnham, would level at LACMA's *Art and Technology* when it opened several months after *Aspen* No. 8 was published. While the reviews may not have been out yet, the exhibition had been in the works since 1966 and criticisms of it were long in the making. Hans Haacke, morever, had folded related arguments into another exhibition that Graham references, *Information*, held at the Museum of Modern Art in the summer of 1970. 182

¹⁷⁹ Aspen Magazine No. 8, Fall-Winter 1971, outside folder. Aspen is available in its entirety on Ubuweb; for Graham's intro see http://www.ubu.com/aspen/aspen8/folder.html

¹⁸⁰ See Jack Burnham, "Corporate Art," in *Artforum* No. XX (October 1971), p. 66-71; Max Kozloff's review appears in the same issue, p. 72-76.

¹⁸¹ Jane Livingston, one of the exhibition's curators, addressed this issue in her introductory essay: "despite a certain amount of reluctance by some of the artists we dealt with through Art and Technology to participate with 'war-oriented' industries for reasons of moral objection, there were no final refusals to participate in the program on this ground alone." In "Thoughts on Art and Technology," in Maurice Tuchman, ed., *A Report on the Art and Technology Program of the Los Angeles County Museum of Art*, 1967-1971 (Los Angeles: Los Angeles County Museum of Art, 1971), p. 44.

¹⁸² His *MoMA Visitors Poll*, which confronted visitors with the 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?" focused less directly on the culpability of corporations and more on that of museums (Rockefeller was on MoMA's Board), but the larger critique is that in exhibitions like these the guilt was shared.

Espousing "information," then, was not something Graham did without irony. Serra, for his part, when asked to contribute "information" to the "Art / Information / Science" issue, offered up *Lead Shot* (1968), a work that also refused to presume information's innocence [Fig. 2.19].

A QUANTITY OF LEAD IS HEATED TO A MOLTEN TEMPERATURE RANGE 340 TO 925°C, IN AN AIRPLANE AT THE HEIGHT OF 15,000 TO 30,000 FEET. ATMOSPHERIC CONDITIONS BEING STABLE THE MOLTEN LEAD IS THEN DROPPED TOWARD A PREDETERMINED SITE ON THE EARTH'S SURFACE. THE LIQUID LEAD VOLUME IN DESCENT FORMS A PRECISE SPHERICAL MASS: A CONTINUOUS SOLID, A BALL, A BOMB. THE QUANTITY OF LEAD NECESSARY TO FORM A SPECIFIC SIZE RATIO OF MASS TO VOLUME IN THE FALLING PROCESS CAN BE CALCULATED. NOTE: FEYNMAN, PHYSICS; SHOT TOWER BALTIMORE, MARYLAND. IT WILL BE NECESSARY TO DROP THE LIQUID OVER SOFT EARTH SITES: MUD, LAKES, OCEANS, ETC. – TO PREVENT SHATTERING.

Lead Shot is an unusual work for Serra in that it exists only as text, for obvious reasons. At first the existence of such a work may seem not only unusual but quite strange; Serra has, over the years, been quite vocal about his opposition to conceptualism. And while Serra did first show Lead Shot in a conceptual art exhibition — Op Losse Schroeven at the Stedelijk Museum, Amsterdam, in 1969 — it is nonetheless best thought of as being a generative part of his sculptural project. For one thing, the proposal suggests that self-generating form was a central interest: not just the bomb but the "continuous solid." Perhaps more importantly, though, Lead Shot was a one-off (or

^{183 &}quot;It's an interesting proposal but I never really thought anyone was going to let me heat molten lead in an airplane. I was interested in the idea of doing it if I could form a sphere by dropping molten lead. If I could do it, that interested me a lot, I thought, if I could do it, I would do it in a place where it would impale itself in the ground. Namely a mud field or something like that, or a dried-out lake. And I talked to Bob [Smithson] about it, and Bob was all for it. He was like, let's get a plane and go get stoned and go up there and do it! I was like, well hold on Bob! Calm down. Because you just can't go up in a plane and start heating up lead. You can't do it. No." (Interview with the author, July 8, 2009.) 184 Circa 1970, to object to conceptual art was also to object to a certain version of "art as information," one to which Graham was considerably friendlier than Serra. Philip Leider, writing about going with Serra to see Michael Heizer's *Double Negative* (1970), frames the artist's disdain specifically with reference to MoMA's *Information*, which was going on at the time: "Serra wondered whether anyone in the 'Information' show had submitted a piece of paper that said: 'Go to a mesa and dig a slot 40 ft deep and one hundred feet long. Then go to the other side and dig a slot..." Leider, "How I Spent My Summer Vacation: Art and Politics in Nevada, Berkeley, San Francisco and Utah," Artforum September 1970, p. 42.

even goof-off) that became quite serious, for it led directly to cast lead works such as *Splashing* (1968) and *Casting* (1969).

This is how naïve I was – I climbed up on a ladder – this is how we started doing the splash pieces. I was with Phil [Glass], and we melted the lead, and I would climb up the ladder and drop it off the ladder and see what was going to happen. Well nothing happened; it just fell down and went *splat*. But as Phil and I saw the splat, we thought, we've got nothing here, but what about over there? And then rather than climbing up the ladder and dropping these things, we decided to use the wall and the floor, and splash them up against the wall and the floor. ¹⁸⁵

There does not seem to be too much to be gained by linking the cast lead works very directly to the bomb: *Lead Shot* demonstrates that an interest in the fluidity, viscosity, and general characteristics of lead can be taken to a wild extreme, but for the most part the cast lead works explore the material's features in a tamer fashion. Where the bomb becomes relevant, though, is in the context that Graham sets up in *Aspen*. Serra had contributed one approach to sculpture in LACMA's *Art & Technology* exhibition; he was now contributing quite another to Graham's. Indirectly, the second sculptural project names the stakes of the first. Art that is "in-formation" might have a special critical leverage on ideological forms of "information."

On the face of it, "information" and Graham's "in-formation" might not seem to have much in common. As I have been discussing "information" thus far – as a shorthand for computer technologies, systems analysis, and the various strategic tools so beloved of the think tanks Graham mentions – they are indeed quite different. Graham and Serra were, as we have seen, skeptical of information of this sort. While criticizing

¹⁸⁵ Author's conversation with the artist, July 8, 2009.

¹⁸⁶ Also, it should be said that by the time of my 2009 interview with Serra he had forgotten about Lead Shot – though when reminded of it he discussed it with great interest. He had, however, explained the genesis of the cast lead works very differently in 1998. "I kept tearing lead, rolling lead, whatever, and then I thought – I have to recycle my lead; I'm just wasting a lot of lead here. And I started boiling it down and running up a ladder and dropping it on the floor or whatever, and I just decided to throw it in the corner... If I was thinking about anything I was thinking about Smithson, who was a close friend of mine, who was thinking about viscosity and liquidity, and geological time, and what you can do with materials. I was thinking about Nauman casting underneath the chair – he was a good friend of mine. I was thinking about Beuys's lard against the wall and on the floor. I was thinking about Barry Le Va's scatter pieces – I had started to cut things up and throw them against the floor also – they looked too pictorial at the time. Splashing lead into the corner for me was a way of making a sculpture." "Responding to Pollock: A Dialogue of Artists," With Kirk Varnedoe, Brice Marden, Richard Serra, Jessica Stockholder, and Jessica Stockholder. The Museum of Modern Art, December 8, 1998. Museum of Modern Art Archives, Sound Recordings of Museum-Related Events, 99.8, 99.8D.

this informational superstructure, however, Graham remained committed to its theoretical base: cybernetics, especially as formulated by the anthropologist Gregory Bateson. ¹⁸⁷ Bateson had been a long-term participant in the Macy Conferences, ten highly specialized discussions of cybernetics held between 1946 and 1953 that were largely dominated by the mathematicians Norbert Wiener and John von Neumann. 188 Yet his own writings are for the most part more philosophical than technical – in his collected essays, Steps to an Ecology of Mind, he cites Bertrand Russell more often than Wiener and Von Neumann put together – and treat a wide variety of subjects, ranging from alcoholism and schizophrenia to communication between dolphins and Rachel Carson's Silent Spring. His ideas could certainly be instrumentalized: they were largely introduced to a wider public by *The Whole Earth Catalog*, the hippie DIY bible that Stewart Brand first published in 1968, and their latent connections to a potentially dangerous technological optimism were thus drawn out and celebrated. 189 Bateson himself, though, was an articulate opponent of game theory and other strategic weapons developed at the RAND Corporation and in the Robert McNamara Defense Department, and by the late 1960s his "information" bore the stamp of a very different cultural formation than did the "information-media companies" that Graham singles out for satire.

In cybernetics, information is a tool for moderating chaos, or as Wiener termed it, entropy. Cybernetics is the study of negative feedback loops, whether in the human mind and body, in a machine, or in more distributed systems (traffic patterns et cetera). Cybernetic systems involve some kind of governing intelligence, one which can tell whether or not all is right in a system and take corrective action. That intelligence, Bateson wrote, "will *compare*, that is, be responsive to *difference*...It will 'process information' and will inevitably be self-corrective either toward homeostatic optima or toward the maximization of certain variables." A bit of information, in this system, is "a difference which makes a difference." It is not information in the knowledge-is-power

¹⁸⁷ For Graham's interest in Bateson see "Interview with Mark Francis," *Dan Graham* (London: Phaidon, 2001), p. 16, 30, and William Kaizen, "Steps to an Ecology of Communication: *Radical Software*, Dan Graham, and the Legacy of Gregory Bateson," in *Art Journal* Vol. 67, No. 3 (Fall 2008), p. 86-107. Serra has said that he too read Bateson, but he was more directly connected to other cybernetic thinkers that will be addressed later in this chapter. For the present purposes, it does not much matter how closely Serra read Bateson or when: he certainly would have understood the implications of Graham's model, which is a useful critical frame for Serra's work but probably was not a causal force behind it. For mention of Serra's reading of Bateson see Kimberly Ann Paice, p *Process Art and Pictoriality: Reading the Work of Robert Morris, Richard Serra, and Robert Smithson*. (CUNY Grad Center Diss., 2003), p. 144.

¹⁸⁸ See Steve Joshua Heims, *Constructing a Social Science for Postwar America: The Cybernetic Group*, 1946-1954 (Cambridge, Massachusetts: MIT Press, 1991), and Paul N. Edwards, *The Closed World* (Cambridge, Massachusetts: MIT Press, 1997), especially Chapter 6.

¹⁸⁹ Such connections have been a point of focus for Felicity D. Scott. See for example "Acid Visions" in *Grey Room* 23, Spring 2006, p. 22-39.

¹⁹⁰ Gregory Bateson, "The Cybernetics of 'Self': A Theory of Alcoholism," in *Steps to an Ecology of Mind* (Chicago: University of Chicago Press, 1972), p. 315.

sense (the currency of the so-called "information economy"); it is a provisional organizing action, one that is affected by all previous organizing actions and will affect all to come.

It is at this point that "information" and "in-formation" come meaningfully together. Information makes sense only as part of the system; it distributes the "governing intelligence" around the whole, and draws the system out over time. The cybernetic system as a whole is thus in-formation, constantly forming and reforming itself. The converse is not, of course, necessarily true: a materials or art works that are in-formation need not be cybernetic systems — and the Props, certainly, are not. Graham's hyphen is, as far as art criticism is concerned, the difference that makes all the difference. It allows him to import the language of cybernetics, to draw a loose analogy, without requiring the artworks in question to be in any way systematic. One of this analogy in the case of the Props is that it gives us a way to think about form that has contingency and temporality built in from the very beginning. Another is that it may mean that the language of the Props, though "solely based on an axiomatic principle of construction" and very much not meant to illustrate any kind of technology or technological principle, might nonetheless be made to speak critically about such things.

4. Literalism and time

Another way that *One-Ton Prop* and the other Props put sculptural tradition to the test is by complicating the debates – very active in the late 1960s – about literalism and time. Writers from Walter Pater to Michael Fried have worried about the possibility that sculpture could become a mere object; the minimalists made a virtue of the fact that it (very nearly) might. ¹⁹¹ One implication of literal objecthood – intensely troubling for Fried, appealing for the minimalists – was the temporality that resulted. In their insistence on being just exactly what they are, literalist objects insist too on being just *when* they are; they simply endure. In certain respects, then, *One-Ton Prop* is a perfectly literalist object. The viewer sees not only how it has been made, but how it continues making itself, not just propped but propping; to view it is to encounter a continuously performed present. Rosalind Krauss captures the *frisson* of *One-Ton Prop* 's temporality especially well, finding an "erotics of process" in its "perpetual climax." ¹⁹² She is certainly right to emphasize the sculpture's here-and-now quality, for the fact that it is not simply static but actively holds itself still provides one of the sculpture's central thrills. Yet as Serra himself pointed out, this suspended animation affects the sculpture's relationship to time (and so to the production of meaning) in other ways as well.

The perception of the work in its state of suspended animation, arrested motion, does not give one calculable truths like geometry, but a sense of presence, an isolated time. The apparent potential for disorder, for

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¹⁹¹ Potts, *The Sculptural Ideal*, p. 3. Michael Fried, "Art and Objecthood," in *Art and Objecthood: Essays and Reviews* (Chicago: University of Chicago Press, 1998), p. 148-172.

¹⁹² Krauss, "Richard Serra: Sculpture," p. 108-9.

movement, endows the structure with a quality outside of its physical or relational definition ¹⁹³

One-Ton Prop's "isolated time" is neither the neutral presence of the minimalist object, nor Fried's presentness, nor his grace. The Props' propping happens in real time, of course, but this action is so focused and turned in on itself that the sculptures' time is oddly estranged from our own. Indeed, that time is almost walled off by necessity: to remove the sculpture from the realm of the conditional or potential and make it fully actual would also be to unleash its dangers, and to bring its time to an end.

In a 1980 interview Serra suggested that that the Props' lack of fixity undermines their literalism – or at least coexists with it. "The transitory existence of the props," he said, "gives them references other than literalness, which Smithson and I related to in a perverse manner. We got a great deal of satisfaction out of that perversity." The perversely pleasing references themselves are easy enough to name, particularly since Smithson was involved (though equally complex to analyze in detail, perhaps also especially since Smithson was involved): the Props are entropic; breakdown is both implied by their forms and rendered inevitable by the lead in which Serra first made them, because structures built in the softest of metals will eventually weaken, sag, and fall down.

Smithson, certainly, was interested in the ways that entropy – a force that moves the universe towards a homogeneous nothingness in a theoretical future – could be made to signify about the contemporary world. In order to think seriously about how the same might have been true for Serra we must begin with the acknowledgement that the *literal* collapse of the Props is something that Serra worked hard to prevent. Initially, he made them out of pure lead, an extremely malleable metal. This practice changed after the Guggenheim exhibition. One hot day when the museum was closed and the air-conditioning turned off, a number of the Props dropped from the heat and had to be reconstructed. In this case the works melted under unusual conditions, but pure lead is so soft that they would have fallen even without the heat, just more slowly. After this incident Serra began using the alloy lead antinomy, slowing the collapse even further, but not stopping it. For a certain amount of decay is essential to the works: as long as they

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¹⁹³ Serra, "Play it again, Sam," in *Richard Serra: Writings/Interviews*, p. 7. Originally published in *Arts Magazine*, Feruary 1970.

¹⁹⁴ Bernard Lamarche-Vadel, "Interview," in *Richard Serra: Writings/Interviews*, p. 114. ¹⁹⁵See Chuck Close, *The Portraits Speak*, p. 63. The Prop that killed the rigger at the Walker was made out of steel: a much less malleable material, obviously, but a dangerously heavy one. Here as at the Guggenheim, Serra avoided collapse: see, for example, his lawyer's letter to the editor in response to Schjeldahl's 1981 *Village Voice* piece on *Tilted Arc:* "Serra did not ever 'precariously [prop] steel slabs' in his work. The riggers erecting one of his sculptures at the Walker Art Center did, unfortunately, do just that, ignoring explicit written instructions by the engineer. A defective weld gave way under the resulting stress and a steel element fell, killing the rigger. A Federal jury having absolved the artist, the engineer and the museum, what rational purpose was served by bringing a false version of this event into the article?" Jerry Ordover, "Letter to the Editor," *Village Voice*, October 16, 1981.

are standing their elements *are* falling – not crashing onto the floor, but sinking into each other – and this action holds them up. This would not happen were lead not so soft, or if the Props' elements did not therefore melt very slowly into one another in an act of mutual but temporary support. "Lead with its low order of entropy is always under the strain of decaying or deflecting," as Serra explained to Liza Bear in a 1980 interview, "So what you have is a proposed stable solution which is being undermined every minute of its existence." The possibility of literal collapse matters, then, but only as it coexists with a "stable solution": violence may present itself, but it does so as a particularly insistent counterfactual, or a possibility that the work must hold in continuous suspension in order to exist. ¹⁹⁷

I take this counterfactual mode to be one of the most basic facts of the Props. The counterfactual is different from illusion: like illusion it involves a sustaining fiction, but here that sustenance is literal. If the fiction fails we do not simply find ourselves unconvinced (as we do by weak illusionism); rather, we find ourselves with no sculpture at all and a potential disaster on our hands. The counterfactual, as Serra presents it in the Props, is a curious mode of signification: One-Ton Prop may be nothing but the facts – an object, again, that "satisfied all the problems of what an aesthetic solution could be without having to go outside the limitations and counterlimitations that it set up for itself" - yet it strongly implies an "outside of itself." It is a completely self-sufficient sculpture, and yet it has, as Serra said, "references other than literalness." But how does one think about a sculpture that is literal with a non-literal remainder? Perhaps only in the late 1960s, with literalism so pointedly named as one of The Issues of Serra and Smithson's milieu, would the combination of literalism and "other references" seem so satisfyingly perverse. Certainly, Smithson had taken a kind of cruel pleasure in leveraging himself against both Fried's attack on minimalist literalism and Judd's sober empiricism. ¹⁹⁸ Serra seems to have been in sympathy with his friend's version of perversity rather than in full accord with it: to Smithson's somewhat mad neither-nor – suspended between satirical and serious apocalypticiesm — Serra comes up with a more measured logical perversity, a kind of both and.

¹⁹⁶ Serra, "Interview by Liza Bear," 47.

¹⁹⁷ "When you use lead, it does have a high order of entropy. Obviously it's not going to last, and it's going to deflect. That's all implied. I'm more interested in the implication of collapse than the actual fact of it. You can build a structure under compression that implies collapse and impermanence and yet it its mere existence denies this." "Interview by Peter Eisenman," *Richard Serra: Writings/Interviews*, p. 144.

¹⁹⁸ Smithson's response to Fried's "Art and Objecthood" took this perversity to an extreme. "The terrors of infinity are taking over the mind of Michael Fried. Corrupt appearances of endlessness worse than any known Evil. A radical skepticism, known only to the dreadful 'literalists,' is making inroads into intimate 'shapehood." (Smithson, "Letter to the Editor," *Robert Smithson: Collected Writings* [Berkeley: University of California Press, 1996], p. 66-67. The apocalyptic mannerist writing style is a clear performance of perversity, and while Fried may have been the target of his letter, Judd and the other minimalists would no more than the critic have warmed to the "corrupt appearances of endlessness" Serra draws from Fried's encounter with their work.

5. The Prisoner's Dilemma

The stakes of this logical perversity become clearer in retrospect – specifically, from the perspective of the post-Watergate seventies. In January of 1974, Serra and Liza Bear recorded an interview for *Avalanche*. "First I want to read you something," he began: it was the text that he had written for *Art & Technology*. He was no longer using the statement to frame a series of demolished sculptures, however, but to position a video called *Prisoner's Dilemma* that he had made in collaboration with the cybernetic economist and game theorist Robert Bell [Fig. 2.20]. The video took its name from a game theory problem first developed by John Von Neumann. The video presented that "game" in two different television genres: first a cops-and-robbers show that was fully scripted and acted by professionals (Richard Schechner, Spalding Gray, and Gerald Hoavgymyan), then a game show improvised in real time with gallerist Leo Castelli and critic Bruce Boice as contestants and Bell as emcee.

The outlines of the problem are fairly simple. Two prisoners are accused of collaboration. They are aware of each other, but they are being questioned separately. Each is given a set of conditions. If you turn the other guy in and he does not turn you in, he gets ten years and you get none. ¹⁹⁹ The reverse is also true, though: if you do not talk and he does, you will get ten years and he will get zero. If both of you turn state's witness, you both get five. If neither of you turns on the other, you both get two. The best outcome for both prisoners comes about if each is loyal to the other. The problem, though, is that each has to trust that his loyalty will be matched by the other, otherwise he will meet the worst possible outcome. The safest thing for each to do is to betray his fellow: it will mean time in prison, but not the maximum amount. In the cops-and-robbers portion of Serra's video, Schechner's District Attorney pressured Gray and Hoavagymyan into turning on each other. In the game show portion, Castelli and Boice remained loyal and must spend the minimum amount of time locked in the gallery basement. ²⁰⁰

During the Cold War, the Prisoner's Dilemma served as a model for thinking through disarmament. As Bell told Bear in an interview that was published alongside Serra's:

I've heard that a version of it has been in the briefcase of some of the early SALT talk negotiators, such as Averal [sic] Harriman. In fact Nixon's fraudulent – I think – disarmament proposals are based on having a weapons system – a bargaining chip – which you then get rid of as part of the negotiations. And this comes straight out of a so-called solution to the prisoner's dilemma. ²⁰¹

¹⁹⁹ I am assuming masculinity here both because Serra's video is all nearly all men – though Kathryn Bigelow, who in 2010 would become the first woman to win an Oscar for Best Director, plays a secretary – and because the think tanks of the fifties and sixties that dwelled on problems like this one were not likely to be proto-feminist institutions.

²⁰⁰ The film is available on Ubuweb, http://www.ubu.com/film/serra_prisoner.html

²⁰¹ Liza Bear, "Richard Serra & Robert Bell…Prisoner's Dilemma," in *Avalanche Newspaper*, May-June 1974, p. 29.

Serra also pointed out that there were parallels to the Watergate trials. "The game does not allow Agnew to confess," he said, "but the other people did – plea bargaining. That's why Nixon's so popular right now. He can't confess, and people love him for it." 202

In some ways, though, the manifest content of the game was not the point; the point was television itself. The year before Serra had produced *Television Delivers People*, a text scrolling up a blue screen detailing the ideological underpinnings of commercial television while chirpy Muzak renders the whole thing absurd [Fig. 2.21]. In *Prisoner's Dilemma*, his interest was to show that ideology at work rather than simply to name it. "What I did in *Prisoner's Dilemma*," he told Bear, "was to use a particular game theory as a way to direct a situation which was close enough to commercial TV to be able to expose its format at the same time." The game was primarily interesting to him, in other words, as a form – one that he could use differentially to critique television.

The form of the game may have been instrumental for Serra rather than an object in itself, at least with respect to *Prisoner's Dilemma*. But that is not to say that the form was not important in its own right – indeed, for the present purposes it is more significant than what the video had to say about television. Serra and Bell had been discussing making a film based on game theory since 1972, but more recently Bell had given Serra a paper Bell he written about deterrence and the prisoner's dilemma. "I read the paper, and in my trying to dope out the pros and cons of it, what I would do if I were in that situation, I found that my own thinking fascinated me, so much so that I thought it must have an awful lot to do with the way I think about anything...I don't know." 204

Certainly, the prisoner's dilemma has a strong formal rhyme with another game theory problem that Serra had used as the basis for a video, *Surprise Attack* (1973) [Fig. 2.22]. In this case Serra wrote the text, but based it on the writings of the RAND Corporation fellow Thomas Schelling. Serra's narrative builds a considerable paranoid tension over the video's two minutes, and is worth quoting in its entirety.²⁰⁵

If I go downstairs to investigate a noise at night with a gun in my hand, and I find myself face to face with a burglar who has a gun in *his* hand, there is a danger of an outcome that neither of us desires. Even if he prefers just to leave quietly and I wish him to, there is a danger that he may think I want to shoot, and shoot first. Worse, there is the danger that he may think I think *he* wants to shoot...Self-defense is ambiguous when one is only trying to preclude being shot in self-defense. This is a problem of surprise attack. If surprise carries an advantage, it is worthwhile to avert it by striking first. Fear that the other may be about to strike in the mistaken belief that we are about to strike gives us a motive for striking, and so justifies the other's motive. But if the gains from even successful surprises are less desired than no fight at all, there is no reason for an attack by either side. Nevertheless, it looks as though there is a temptation

²⁰⁴ Bear, "Prisoner's Dilemma," p. 24.

²⁰² Bear, "Prisoner's Dilemma," Richard Serra: Writings/Interviews, p. 21.

²⁰³ Bear, "Prisoner's Dilemma," p. 20.

²⁰⁵ The video is available on Ubuweb. http://www.ubu.com/film/serra_surprise.html

on each side to sneak in the first blow. A temptation too small by itself to motivate an attack, with the additional motives for attack being produced by successive cycles of, "he thinks we think, we think he thinks, he thinks we think he thinks, we think he thinks we think we will attack, so we shall so we will so we must."

The image on screen is Serra's hands, the right hand repeatedly throwing a piece of lead into the left, punctuating the narration and – since Serra throws the lead pretty hard – driving home the situation's force.

Both the prisoner's dilemma and the surprise attack problem are variable-sum games as opposed to zero-sum games: if one participant in a conflict gets more, it does not *necessarily* mean that the other gets less. These are, therefore, complex strategic situations: each adversary wants to win, but not necessarily to inflict the worst on the other. The true goal is instead to prevent the other from using force (whether that is physical force or the power of an accusation). The aim is – to bring things once again to the geopolitical level – essentially one of deterrence. In *The Strategy of Conflict*, the book in which Serra encountered the problem of the surprise attack, Schelling spelled out what is at stake in the variable-sum game.

Deterrence is concerned with the exploitation of potential force...There is an important difference between the intellectual skills required for carrying out a military mission and for using *potential* military capability to pursue a nation's objectives. A theory of deterrence would be, in effect, a theory of the skillful *nonuse* of military forces, and for this purpose deterrence requires something broader than military skills.²⁰⁶

In his conversation with Bear Serra himself seems not to know exactly why the prisoner's dilemma "must have an awful lot to do with the way [he thinks] about anything," and it would be presumptuous to make any definite claims on his behalf. Yet Schelling's explanation of the logic underlying the strategies of variable-sum games sounds extremely familiar: the strategy is essentially to put violence out there but hold it in suspension, to keep the use of force alive as a perpetual counterfactual but never to actualize it. This is, in technocratic form, essentially the signifying mode of the Props. This is, I hope obviously, not to say that the Props in any way illustrate game theory (in any case, the lead Props in question were all made before Surprise Attack and Prisoner's Dilemma). It is to say, though, that it is not absurd to imagine the Skullcracker works maintaining a strong, critical relationship to the ideological formations at work in the corporations participating in Art & Technology. "Technology is what we do to the Black Panthers and the Vietnamese under the guise of advancement in a materialistic theology": certainly a terrible portion of "what we did" had to do with hardware – the products of the Lockheeds and the Norrises – but Serra's statement suggests that even in 1969 he was more focused on the ideological violence perpetuated by the think tanks. If there was a form of differential critique going on in the Skullcracker Series, I am suggesting, it was

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²⁰⁶ Thomas Schelling, *The Strategy of Conflict* (Cambridge, Massachusetts: Harvard University Press, 1960), p. 9.

aimed not toward the steel yard itself or the conditions of industrial labor, but toward the more theoretical products of the military-industrial complex.

How does the differentiation work, then, and what is the point? To draw these questions out it is useful to keep moving back in time, for Surprise Attack points back to the moment of Art & Technology: take away the soundtrack and this video could be called *Hand Catching Lead* [Fig 2.23], had that name not already been given to Serra's first film, shot in 1968, a few months before the sculptor went to Kaiser to work in the Skullcracker yards. 207 The repetition is not an accident; the video refers back to the film. 208 Serra is not, like Jasper Johns (or Pablo Picasso and Marcel Duchamp before him), an artist given to self-quotation. He is, however, unusually insistent on the generative lines running through his career: the phrase "work comes out of work" has served as an exhibition title for him, and could almost be a kind of mantra. ²⁰⁹ Generally that phrase means that more recent works develop formally or conceptually out of earlier ones – as in fact *Hand Catching Lead* developed out of *Prop* (1968). The choreography of putting the Props together was sufficiently interesting that the Whitney asked Serra to make a film of Serra and his crew constructing *One-Ton Prop* to show in *Anti-Illusion*; Serra felt that it would be too literal to do so, and instead made *Hand Catching Lead* with filmmaker Robert Fiore.²¹⁰

In Hand Catching Lead, unlike Surprise Attack, there is only one hand onscreen. That hand too is Serra's, and the additional, implied hand – the one we know must be there for the lead to drop into the frame so that Serra might catch it – belongs to Phillip Glass, the most constant and most important of the assistants who worked with Serra on the Props. The choreography of *One-Ton Prop's* installation is represented in miniature, then; Serra is clearly intent on keeping his hand in the center of the frame, and occasionally we see his hand gesturing frantically to get Glass to drop the lead in the right spot. This would have been a minor matter in the case of the film, but an essential one in the case of the sculpture. Ultimately, the most important aspect of the sculpture picked up in the film is not the coordination of efforts but the examination of weight and gravity that goes on in each. Every time he catches the lead, Serra's hand fights to remain in the middle of the screen; eventually the effort and the repeated catch-and-releases becomes visibly tiring. The lead sheet used in the film is fairly small, yet one feels its weight and the effects of gravity on it, and on Serra's body. And this, perhaps, is ultimately the point. Presenting the film in *Avalanche*, Serra juxtaposed it with a quotation from Marcel Duchamp: "Gravity is not controlled physically in us by one of the five ordinary senses. We always reduce a gravity experience to an autocognizance, real or imagined, registered inside us in the region of the stomach."²¹¹ Viewing Hand Catching Lead or One-Ton *Prop* we know ourselves, and we know ourselves in some irrational and maybe imaginary but nonetheless important way.

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The film is available on Ubuweb: http://www.ubu.com/film/serra_lead.html

²⁰⁸ Castelli-Sonnabend Tapes and Films, Inc., *Castelli-Sonnabend Videotapes and Films* (catalog), 1974, np.

²⁰⁹ Richard Serra: Drawings – Work Comes out of Work, Kunsthaus Bregrenz (2008)

Author's conversation with Clara Weyergraf-Serra, February 15, 2011.

²¹¹ Two-page graphic spread devoted to Serra's film and video projects, "Documents," *Avalanche Newspaper*, p. 20.

Gravity is at work in *Surprise Attack* too, of course. Here the piece of lead is even a bit larger, blockier, and weightier. Yet Serra's throws are cued to the rhythm of his speech – imperfectly cued, but this only heightens the connection as we itch for Serra to get it right, to smooth it out. This rhythm instrumentalizes the lead, folds it into the narrative. That narrative, meanwhile, is a kind of self-fulfilling prophecy: it seems like a machine that is unstoppable once set in motion, ending with "successive cycles of, 'he thinks we think, we think he thinks, he thinks we think he thinks, we think he thinks we think' we will attack, so we shall so we will so we must." The inevitability of the implied resulting violence seems rather hollow. We feel it less in our stomachs than in our nerves; the "autocognizance" Duchamp speaks of is short-circuited.

Surprise Attack is near enough to Hand Catching Lead in some ways that this departure seems to be the point: what happens if one transforms an essentially structuralist film into a video about a form of military-industrial theory? How in this case does "work come out of work"? The statement that Serra submitted for the Art & Technology catalog names the wedge between the film and the video beautifully. To repeat the most relevant section: "Technology is not art and not invention. It does not concern itself with the undefined, the inexplicable. It deals with the affirmation of its own making."

This same differential exists between the video and the Props, and between the *Skullcracker* series and the ideological context of *Art and Technology*. As Serra told Crimp about *Stacked Steel Slabs*, he had pushed the sculpture to "the boundary of its tendency to overturn." He was practicing a kind of brinkmanship at a time when doing so meant something quite specific, and practicing it not for the sake simply of threatening to make the slabs turn over but for that of seeing what happens when they do not. The brink may have been at its scariest earlier in the 1960s, around the Cuban Missile Crisis, but in the heat of the Vietnam War it still very much needed to be given form and made over into meaning. *Stacked Steel Slabs* and the smaller works that followed, such as 2-2-1, did that by going to the edge and retreating —retreating not simply to keep things from becoming dangerous, but in order to articulate a difference.

Indeed, the "edge" that the *Skullcracker* works and later Props approach is not necessarily that of collapse. Rather I am referring to how nearly these works approximate a form in the information-technological world, and how importantly they finally refuse it. We have seen that one defining fact of this technological realm, for Serra, was self-affirmation: machines, or theories that function as machines, establish a set of conditions and have the realization of those conditions as their only justification: the justification for a strategy for how *not* to use weapons is not peace (however much Schelling and his fellows may have seen that as the desired goal) but further military development; the snake chases its own tail.

It is by speaking to this condition, as much or more than addressing the balance of power, that *One-Ton Prop* and *Stacked Steel Slabs* maintain "technology" as something to signify about differentially. Serra told Peter Eisenman that one of the most important facts about the Props was that their "how" becomes their "what"; that in certain respects they formed closed a loop of cause and effect. ²¹² Yet experientially, that apparently closed loop generates something else entirely. Particularly in the works made after

²¹² "Interview by Peter Eisenman," in *Richard Serra: Writings/Interviews*, p. 144.

Stacked Steel Slabs, in which Serra used the pressure of overhead weight to stabilize the elements below – and in which he discovered that the effect was a paradoxical tendency to feel weightless – the works bring about an apparently contradictory version of Duchamp's autocognizance born of the fact that that is simultaneously a bit perverse and a bit liberating, and forces the viewer to consider, in her own body, what it means to hover on the brink.

Chapter 3 Sculpture and the Camera

1. After Kyoto

In the summer of 1970, Richard Serra and Joan Jonas – a former painter who had recently begun to focus on film and performance – made a six-week trip to Japan. While there, they obtained a Sony Portapak video camera. The acquisition was especially crucial for Jonas, who later explained that it usefully allowed her to work on her own, no longer always having to depend on groups of performers to carry out her plans.²¹³ Working in this state of freedom and solitude, Jonas produced some of the early seventies' most compelling examinations of the interplay between technology and the self. In the best known of these, Vertical Roll (1972) [Fig 3.1], Jonas used the video camera and monitor together – or against each other – to create the vertical roll of the title, a rhythmic breakup in the picture that moves from the bottom of the screen to the top. Filming fragments of her own body, she used the video camera to fracture her own image and also – despite the fact that she sometimes appears nude or in a showgirl costume – to withhold it. Serra was much less of a soloist when it came to video – he generally worked with producers in professional television studios – but his first video also showed the effects of the hands-on engagement with the medium that the Portapak allowed.

Called *Anxious Automation* (1970) [Fix 3.2], this four-and-a-half-minute video features Jonas performing along with two video cameras that were complexly choreographed but crudely managed: this is not really automation but its somewhat rickety simulation, having required eight hands to perpetuate, not counting Jonas. She spent most of the video supine on a small stage, rocking quickly from side to side as she performed four simple movements in repeated succession. Two cameras, situated a few feet apart from each other, zoomed in and out between a tight framing of Jonas's face and

²¹³ Jonas, "Interview with Joan Simon," in Johann-Karl Schmidt, ed., *Joan Jonas: Performance Video Installation*, *1968-2000* (Stuttgart: Galerie der Stadt Stuttgart, 2001), p. 29.

a somewhat wider-angle view that encompassed her torso. The cameras passed through a set sequence of focuses and zooms, moving in conjunction at first but gradually going out of sync. Since Serra was in the control booth operating a switch that "punched" back and forth between the two cameras situated several feet apart, these latter passages produced some rather jarring results, with Jonas's image being thrust at the screen suddenly and then just as abruptly yanked away, as well as rocked from side to side. Philip Glass, meanwhile, provided a soundtrack that could hardly be more distant from the lush movie scores he has become known for in recent decades, tapping on the microphone rhythmically but out of sync with the visuals: speedily when the movement was slow and slowly when the cameras moved more quickly.

Discussions of Serra's time in Japan do not usually center on the purchase of a Sony Portapak. The summer's visit looms large in his story, instead, because it was in Kyoto, in the Zen gardens of Myoshin-ji, that Serra began thinking hard about ambulatory perceptual experience. The immediate results were landscape sculptures such as Pulitzer Piece: Stepped Elevation (1970-71), Shift (1970-72), and Spin Out (for Bob Smithson) (1973) [Figs 3.3-3.5]; in many respects, the thinking behind these works – continues to inform the torqued steel sculptures he makes today. The frenetic pace of Anxious Automation is antithetical to the unbroken contemplative state the Zen gardens are designed to foster, and, not surprisingly, the video also seems a far cry from the landscape works that emerge most directly from Serra's time in Kyoto. These sculptures' dynamics vary in intensity and mood – the energies of *Pulitzer Piece* are very much dispersed, while Shift moves determinedly (though reversibly) across its field, and Spin Out seems to work on space like a pitcher putting spin on a ball – but none of them are especially tense. This chapter explores the ways in which, mood aside, Serra's earliest landscape sculptures and Anxious Automation – along with a number of other nonsculptural works Serra made at the end of the sixties and beginning of the seventies – represent two different ways of negotiating the problem of spatial perception. It also examines other film and photographic projects that Serra developed alongside and in conversation with early large-scale gallery-based sculptures such as Strike: To Roberta and Rudy (1969-71) and the landscape sculptures that emerged out of them, especially Shift.

Serra's efforts to emphasize spatial perception are by now familiar, and indeed may have been too neatly narrated – Serra has articulated them persistently over the years and a number of art historians have consolidated his statements into a tale of progressive development.²¹⁴ As Serra worked his way into sculpture, a medium whose primary merit

²¹⁴ Serra's statements in this regard are consistent but not systematic. In *Richard Serra:* Writings/Interviews see "Shift," p. 11-13 (originally published in Arts Magazine, April 1973); Liza Bear, "Document: Spin Out '72-'73," p. 15-17 (originally published in Avalanche Newspaper, Summer/Fall 1973); Bear, "Sight Point '71-75/Delineator '74-76," p. 35-42 (originally published in Art in America, May/June 1976); Bear, "Interview," p. 45-49 (originally published in Richard Serra: Interviews, Etc. 1970-1980 [Yonkers, NY: The Hudson River Museum, 1980]); Peter Eisenman, "Interview," in Richard Serra: Writings/Interviews, p. 141-154 (originally published in Skyline in April 1983). The work of consolidation has largely taken place in three essays reproduced in Richard Serra (The October Files) (Cambridge, Massachusetts: MIT Press, 2000). These

for him was the direct bodily engagements on offer, he struggled to defeat any lingering vestiges of the pictorial tradition, which he by then understood as a centuries-old mechanism for codifying experience, offering it up in abstracted, disembodied form. The freestanding Props, discussed in the previous chapter, improved upon the process works in this regard because they did not rest on the floor as figure on ground. Still, while they were in the viewer's space, the viewer could not enter theirs. Serra first took steps to rectify this issue in 1969 with *Strike (To Roberta and Rudy)* (1969) [Fig 3.6], a single eight-by-twenty-four-foot sheet of steel wedged into the corner of a gallery; in *Circuit* (1972) [Fig 3.7], he opened up a more complex "behavioral space" for the viewer by wedging a steel plate into all four corners of the gallery; the landscape works of the earlier seventies drew on this same vocabulary, extending the behavioral space of the sculpture beyond the confines of the gallery's white cube. Here, if we can isolate such a moment, arrived Serra's maturity as a sculpture. "With 'the discrete object [thus] dissolved into the sculptural field," Hal Foster summarizes,

Two terms emerged with renewed force for Serra: the body of the viewer (the minimalist fixation on the object had obscured the very shift to the subject that it had otherwise inaugurated) and the time of bodily movement in this field – in short, corporeality and temporality. ²¹⁶

From this point on, Serra's sculpture began moving along a more internally consistent material and formal trajectory than it had done before, and this movement has continued into the present.

Yet works like *Anxious Automation* suggest that he was not as entirely assured of his direction as all of this makes him sound. As confident as his sculpture may appear (at least after the Props, which are possibly better described as confidence-testing), much of his contemporaneous work in other media – film and video as well as photo-conceptual works – seem to be unified by a single vector of anxiety. Collectively, I will argue in this chapter, these works in video, film, and photography manifest a sculptural struggle. Perhaps Serra's attempts to push sculpture beyond what he had come to view as a historical system of visual abstraction and disembodiment – the pictorial tradition, particularly as it rationalized space in the system of single-point perspective – could not in the end fully escape contemporary image technologies that presented similar but sometimes more ideologically pernicious problems.

are Yve-Alain Bois, "A Picturesque Stroll around *Clara-Clara*," especially p. 59-61; Rosalind Krauss, "Richard Serra: Sculpture," especially p. 107-124; Hal Foster, "The Un/making of Sculpture," especially p. 177-78.

²¹⁵ Wanting to be rid of the "pictorial tradition" is very different from not thinking about *paintings*: during the years in question he was also struggling to locate and retain the most useful aspects of Kasimir Malevich's work. In 1972 he made a drawing called *Heir* (Fig. 3.8), and it was the Suprematist painter's legacy he had in mind for himself. See Magdalena Dabrowski, "Beyond Constructivism: Richard Serra's Drawings," in Bernice Rose, Michelle White, and Gary Garrels, eds., *Richard Serra Drawing: A Retrospective* (New Haven: Yale University Press, 2011), p. 45-53.

²¹⁶ Hal Foster, "Richard Serra: The Un/Making of Sculpture," p. 178.

Serra, trained as a painter, was much more conscious of perspective than would probably have been evident from the paintings (no longer extant) that he made while a student at Yale, which he has described as responses to Jackson Pollock and Willem de Kooning. After graduation, however, he went to Florence on a Fulbright with the stated intention of studying Piero della Francesca. He did so for a while, feeling "somewhat close to" Piero's geometry. Serra's diminishing comfort with the pictorial tradition came to an abrupt end that same year, though, when he traveled to Madrid and encountered Diego de Velasquez's *Las Meninas*: its narration of the way in which the machinery of perspective posits the presence of a single viewer proved too much. "I realized," Serra later said, "that I was the subject of the painting and Velázquez was looking at me. That really bothered me." Thrilled and repelled by the canvas, Serra quit painting all together and began making the barnyard assemblages discussed in Chapter One.

Single-point perspective has often been viewed as constructing a position of power; everything is organized in relation to the viewer, subordinated to his (traditionally masculine) gaze. For Serra, the perspectival point of view was instead a position of confinement, one that pinned the beholder into place. To a certain extent, his reaction seems symptomatic of a changing media landscape. The objections he raised against features of the perspectival system – that its viewers are passive before an image, or else conjured up by one — are closely related to charges that he also brought against commercial, mechanically produced imagery. Some of this had to do with remnants of the pictorial tradition that were built into the camera, whether still, film, or video. He has contended, "most people want to consume sculpture like they consume paintings – through photographs. Most photographs take their cues from advertising where the priority is high image content for an easy Gestalt reading."²²⁰ In other cases, he has objected more to the ideologies underpinning the machinery than to the machinery itself. In 1973, Serra produced the polemical video *Television Delivers People*. "The product of television, commercial television, is the Audience," it began, its text scrolling over a blue screen with Muzak in the background. "Television delivers people to an advertiser." Producing an audience can be a deeply interesting thing for an image to do, of course. In Las Meninas, the position of the viewer coincides with the fictional position of the royal couple. The canvas wittily offers up its fictions as fictions: the real royal couple was never going to believe they were reflected live in the painted mirror, and no one else was ever going to mistake themselves for the King and Queen. By contrast, the television audience mistakes itself for king – this all exists for me, does it not? – when it is instead a passive consumer. Serra admired *Las Meninas* so much that he would later recall standing before it trembling and in a sweat, but things change: the kind of spectator

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²¹⁷ "Responding to Pollock: A Dialogue of Artists," Symposium, Museum of Modern Art, December 8, 1998. Museum of Modern Art Archives, Richard Serra files.

²¹⁸ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

²¹⁹ Hal Foster, "Richard Serra in Conversation with Hal Foster," in *Richard Serra: The Matter of Time* (Göttingen: Guggenheim Bilbao and Steidl Verlag, 2005), p. 25.

²²⁰ Douglas Crimp, "Richard Serra's Urban Sculpture," in *Richard Serra*: *Writings/Interviews*, p. 129.

Velásquez's painting implied had come to seem, by the mid-1960s, a compromised viewer rather than an idealized one. ²²¹

The belief that the camera may have irretrievably rewired the contemporary sensorium was certainly floating around Serra's milieu in the late sixties and early seventies. Perhaps the most exultant proclamations to that effect came from Robert Smithson, especially in his 1967 essay "A Tour of the Monuments of Passaic, New Jersey."

Photographing with my Instamatic 400 was like photographing a photograph. The sun became a monstrous light-bulb that projected a detached series of 'stills' through my Instamatic into my eye. When I walked on the bridge, it was as though I was walking on an enormous photograph that was made of wood and steel, and underneath the river existed an enormous movie film that showed nothing but a continuous blank.²²²

Smithson's contemporaneous works suggest that he associated this internalization of the camera's eye with the workings of single-point perspective. Smithson constructed his sculptures *Alogon* and *Plunge* (both 1966) [Fig 3.9], for example, to give the appearance of optical foreshortening and to force the viewer to view the sculptures as if through the camera's eye. As a result the sculptures seemed, confusingly, either to recede into the distance too quickly or to give single-point perspective an irrational reversal. Part of the pleasure Smithson took in the work was no doubt in the sheer perversity of imposing a two-dimensional illusion of three dimensions onto real, three-dimensional space, but he was not just playing games with outmoded systems. In related writings, photographic projects, and sculptures – most notably the series of Nonsites – he also used his irrationally rationalized version of Renaissance perspective as a stand-in for the abstracted spaces of late capitalism, something he first focused on when working with the architectural firm Tippetts-Abbett-McCarthy-Stratton on a proposal for the Dallas-Fort Worth airport.²²³

Part of the Zen gardens' appeal for Serra was that they dispensed entirely with these sorts of spatial systems, and all that they had come to stand for. "When you're in Japan, all that [abstract, Albertian space] goes out the window, literally. It's no longer about the window; the window *is an open space*. So it's no longer measuring through the frame, it's not about Dürer or any of that, that's gone." The gardens organized experience, but not in relation to an abstract grid or other set form. Arcing, patterned

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²²¹ Getty Research Institute, Irving Sandler Archives, 2000.M.43 Individual Artists/ Serra, Richard, 1981-99 (1 of 2).

²²² Robert Smithson, "A Tour of the Monuments of Passaic, New Jersey," in Jack Flam, ed., *Robert Smithson: The Collected Writings* (Berkeley: University of California Press, 1996), p. 70.

²²³ Robert Smithson, "Towards the Development of an Air-Terminal Site," in Flam, ed., *Robert Smithson*, p. 52-60.

²²⁴ Author's conversation with the artist, July 8, 2009.

pathways moved the viewer through the space, creating shifting prospects onto objects within the gardens. This spatial organization meant that attention would land on details within the landscape but always return to the whole; the spectator thus had be on the go in both body and mind: physically, it was of course a simple necessity to walk in order to see everything; conceptually, the spectator had to move between part and whole without the guidance of compositional hierarchy. This meant that the second problem with perspectival space – that it posited a static viewer – was also inoperative. Experience of the gardens was active, mobile, and temporal. "It's a physical time," Serra explained. "It's compressed or protracted, but always articulated. Sometimes it narrows to details, but you are always returned to the field in its entirety."²²⁵

Serra first articulated the lessons of Myoshin-ji in a 1973 essay about *Shift*, the sculpture he had executed in concrete in a field outside of King City, Ontario. "What I wanted was a dialectic between one's perception of the place in totality and one's relation to the field as walked. The result is a way of measuring oneself against the indeterminacy of the land." To achieve these goals, Serra began each of *Shift*'s five wall-like elements at the apex of one of the field's small hills, drawing them out so that they would run down that hill's steepest slope until the wall had reached an elevation of five feet. The results, Serra wrote, recall perspectival space only in order to refute it.

Insofar as the stepped elevations function as horizons cutting into and extending towards the real horizon, they suggest themselves as orthogonals within the terms of a perspective system of measurement. The machinery of renaissance space depends on measurements remaining fixed and immutable. These steps relate to a continually shifting horizon, and as measurements, they are totally transitive: elevating, lowering, extending, foreshortening, contracting, compressing, and turning. 226

Space, then, is to be produced through lived bodily experience rather than given as a preexisting abstract form. Rosalind Krauss has produced the most extended analyses of this aspect of Serra's landscape sculpture, – first as part of *Passages in Modern* Sculpture's narrative arc, and then more directly in "Richard Serra: A Translation" (1983) and her catalog essay for the retrospective of the artist's work at the Museum of Modern Art in 1986.²²⁷ In each of these contexts (if least explicitly in the book), Krauss

²²⁵ Hal Foster, "Richard Serra in Conversation with Hal Foster," in *Richard Serra: The Matter of Time*, p. 31.

²²⁶ Serra, "Shift," in *Richard Serra: Writings/Interviews*, p. 13.

²²⁷ Krauss's account has been influential. See, for example, Stefan Germer, "The Work of the Senses: Reflections on Richard Serra," in Richard Serra (Madrid: Museo Nacional Reina Sofia, 1992), 141-49; Nathan Paul Griffith, Richard Serra and Robert Irwin: Phenomenology in the Age of Objecthood (Doctoral Dissertation, The University of Michigan, 1993). Amelia Jones, "Meaning, Identity, Embodiment: The Uses of Merleau-Ponty's Phenomenology in Art History," in Dana Arnold and Margaret Iverson, eds., Art and Thought (Oxford: Blackwell Publishing, 2003), p. 77; James Meyer, "No More Scale: The Experience of Size in Contemporary Sculpture," Artforum vol. 42, no. 10 (Summer, 2004), p. 224-5.

relates Serra's work to the philosophy of Maurice Merleau-Ponty, which Serra himself first encountered around the time he went to Kyoto. In the years that have followed, the Serra literature has largely taken the connection between artist and phenomenologist as a given – and why not? "I cannot understand the function of the living body except by enacting it myself," Merleau-Ponty wrote, "and except in so far as I am a body which rises towards the world." Who could be a more ideal viewer to walk the gently sloping field across which *Shift* shifts? Viewed passively – whether from a distance or up close makes no difference – *Shift* is just a series of concrete walls on a farm. To be experienced a sculpture it must, in Merleau-Ponty's phrase, be *enacted*.

To determine the sculpture's boundaries, Serra and Jonas walked the field, trying to keep each other in view across its contours. The maximum reach of their mutual gaze determined the sculpture's boundaries. As Krauss argues, this reciprocity carries over nicely into Serra's conception of space in *Shift*. While the stepped concrete elements serve to measure the field, they provide a transitive measurement – or a chiasmic one, to put it in Krauss's phenomenological terms – one which does not function abstractly or universally but instead, through "elevating, lowering, extending, foreshortening, contracting, compressing, and turning," serves as a gauge of the extent to which perception embeds the body in the world. Between the process of the work's eye-to-eye mapping and the final product, Krauss writes,

one passes from the interpersonal into an interaction with space itself, [and] it seems to follow that one will discover a network of horizons, a system that will constantly reorganize itself not as one stands back and surveys the terrain, but as one gives way to the topographical embrace. It is in this movement in which the horizon is redefined not as a spatial limit operated by measurement but as a coordinating limit operated by meaning, that we hear the echo of phenomenology's account of perception: "because to look at the object is to plunge oneself into it, and because

²²⁸ On Serra's encounter with Merleau-Ponty see Jonathan Peyser, "Declaring, Defining, Dividing Space: A Conversation with Richard Serra," in *Sculpture* 21, no. 8, October 2002, p. 30.

²²⁹ Merleau-Ponty quoted in Rosalind Krauss, *Richard Serra: Sculpture*, in Hal Foster and Gordon Hughes, ed., *Richard Serra* (October Files) (Cambridge, Massachusetts: MIT Press, 2000), p. 129. Krauss is quoting *The Phenomenology of Perception* (Paris, 1945), trans. Colin Smith (London: Routledge & Kegan Paul, 1962), p. 75.

²³⁰ It was understood from the beginning that the field would remain in use. See Lynne Cooke, "Thinking on Your Feet: Richard Serra's Sculptures in Landscape," in Kynaston McShine and Lynne Cooke, eds., *Richard Serra Sculpture: 40 Years* (New York: The Museum of Modern Art, 2007), p. 80. This is no doubt one reason that the classic photographs of the work show it in winter. Over the years the work has become harder to see: erosion has equalized the land somewhat, so the walls are shorter than five-feet at their highest points. When I visited in July of 2006, the fields were being used to grow soy. The plants, which were low to the ground, left the contours of the fields perceptible. The concrete elements themselves, however, were harder to see: while the productive areas of the fields had been cleared of weeds, they grew high around the sculpture.

objects form a system in which one cannot show itself without concealing others. More precisely, the inner horizon of an object cannot become an object without the surrounding objects' becoming a horizon and so vision is an act with two facets."²³¹

Shift, then, embraces the viewer; its spatial limits are not just given but "coordinated" between viewer and artwork, and the operative point of negotiation in this exchange is meaning itself. These are bold claims: one might hope to find a level of reciprocity as satisfying as the one Krauss describes here in an interaction with another person, and would expect to find it only in cases where there existed an unusual amount of mutual understanding. To interact with the sculpture, moreover, "one gives way to the topographical embrace" of the hills and valleys that it defines; the technical modifier here might hold Krauss back from full-on landscape romanticism (a "hilly" embrace clearly would be much more voluptuous than a "topographical" one), but her suggestion that the role of the viewer is to "give way" to that embrace hints again that this is a work that offers up a good deal to the receptive viewer. By the end of this chapter, however, I will argue that while the some of the satisfactions Krauss describes are indeed on offer in Shift – as they are in Pulitzer Piece and Spin Out – the sculptures are finally a bit more withholding than her language would suggest.

One factor Krauss does not describe, at least in any detail, is the land that offers the viewer this "topographical embrace." She notes that *Shift*'s field is hilly – like most of Serra's landscape works, the sculpture was sited in relation to contours – but that is all. As a result, she does not really address how the sheer fact of a sculpture's integration into an agricultural or woodland landscape might affect our experience of it. Shift was remote in the Canadian farmland (and it is still relatively secluded at the edge of Toronto's growing exurban sprawl); Pulitzer Piece is in the near suburbs of Saint Louis but it is privately held and carefully guarded; Spin Out occupies an out-of-the-way valley in the extensive sculpture garden of the Kröller-Müller Museum, an institution with a major collection but a somewhat isolated location amidst the dunes of the National Park De Hoge Veluwe, Otterlo, the Netherlands. All three works are remote enough that one's experience of them tends not to include other viewers (except for those who may have journeyed there together); combined with the sculptures' serene settings this solitude means that the works lend themselves to fairly idyllic encounters. In the purest terms, these facts may be incidental to the philosophical dynamics that Krauss locates within the sculptural forms. They are not incidental, though, to the viewer's experience of the sculptures, and in truth the protective feeling of intimacy found in each site – even the expansive field traversed by Shift – serves to secure the reciprocal engagement of viewer and sculpture that Krauss describes.

Inevitably, though, there is a snake in this garden. About ten years after his trip to Japan, Serra discussed landscape sculpture – focusing on those, like Robert Smithson's or Michael Heizer's, that are in the desert, but implicitly reflecting on his own as well. "If you build a piece in the desert," he told Douglas Crimp, "you have the possibility of remaining private while working on a large scale" – a situation that allows for the

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²³¹ Krauss, "Richard Serra: Sculpture," p. 130. She is quoting Merleau-Ponty, *The Phenomenology of Perception*, p. 68.

exploration of "private concerns." He was troubled by that protective space, he said; he wanted to make work that was more "vulnerable" to its environment. In some ways, though, it seems as though his real objection was that the idyllic remove of landscape works was an illusion, an ideological effect. For an artist to fulfill the fantasy involved in playing private concerns out on a grand scale, it was necessary to bring those concerns "back to the public in the form of documentation. I have never found that satisfying." Crimp responded skeptically to Serra's resistance: "But much of what we know of the entire world we know through photographs. I think that Smithson's work shows a consciousness of the photographic in general." Serra responded:

If you reduce sculpture to the flat plane of the photograph, you're passing on only a residue of your concerns. You're denying the temporal experience of the work. You're not only reducing the sculpture to a different scale for the purposes of consumption, but you're denying the real content of the work. At least with most sculpture, the experience of the work is inseparable from the place in which the work resides. Apart from that condition, any experience of the work is a deception.²³⁴

Serra did not give in to Crimp's point, then, but his actions speak back to his assessment of photography's "deception" in interesting ways. For one thing, by no means did he place an embargo on photographs of his work. On the contrary, he has managed them very carefully. ²³⁵ Paging through catalogs of Serra's sculpture, one will see the

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²³² Everything cited here from this interview comes from Douglas Crimp, "Richard Serra's Urban Sculpture," in *Richard Serra: Writings/Interviews*, p. 129.

²³³ "I would rather have the actual experience of the work at urban scale. I made a definite decision when there was a possibility of working in an isolated site by saying, 'No, I would rather be more vulnerable and deal with the reality of my living situation, which is urban." He was working on *Tilted Arc* (1981) when his interview with Crimp took place, and he had just completed *TWU* and *St Johns Rotary Arc* (both 1980). These three sculptures were all sited within a half-mile of Serra's Tribeca studio, so when he said he was focused on the "realities of [his] living situation" his words had a particular specificity and intensity.

²³⁴ Douglas Crimp, "Richard Serra's Urban Sculpture," in *Richard Serra:* Writings/Interviews, p. 129.

²³⁵ Alex Potts also addresses the apparent inconsistency between Serra's dismissal of photography and his use of very good photographs, arguing that the sculptor was not simply making the best of a bad situation. His argument amounts to a defense of the photograph's relationship to time. "The photograph is an image of something but it is also a viewing of something, a viewing caught in the camera's eye. It may literally be static. Even so, the viewer looking at the photograph does not necessarily just fix on the whole image but also scans it, in effect moving round within the field that it evokes. Coming to the image of a sculpture with a predisposition to a temporal mode of viewing, which would involve moving around in the space where the work is situated – 'looking and walking,' as Serra put it – one will also seek as best one can to read a photographic image of it in these terms, projecting in the mind's eye a trajectory through the space that

same photographs again and again (most exceptions seem to arise when a museum reproduces a work in its own collection, taken by one of its own staff photographers). Generally, the photographs date more or less to the time of the sculpture's construction, either in Serra's studio or in the initial exhibition venue. Serra has always had his works documented in black and white, and he has tended to work with the same excellent photographers repeatedly: Peter Moore documented most of Serra's early sculpture (though the photographs from 9 at Castelli, discussed in Chapter One, were taken by Harry Shunk, who reappears later in this chapter); later the artist consistently commissioned the German photographers Dirk Reinertz and Lorenz Kienzle. In her essay for the catalog of Museum of Modern Art's 2007 retrospective of Serra's work, Lynne Cook – whose role as curator and catalog editor surely made her very well aware of Serra's preferences – noted that "the constraints that Serra has long placed on reproductions of his works; photographs should be in black and white only, and where possible the work is to be illustrated from several angles, including an elevated one, that allows its profiles and edges to be clearly read." 236

Serra continued making landscape works through the late 1970s and 80s – as indeed he has into the present. One thing he did abandon after completing this trio from the early 1970s, though, was the practice of making landscape sculptures that explicitly evoked the Albertian picture window and the measured recessions it staged. *Two Equal Steps* (1978) [fig 3.10], for example, had the traditional picture frame's right angles but not its function, since rather than setting up a vista its two plates seem to step up and down in a somewhat constrained, precise dance with the contours of the land. Meanwhile Serra arrayed the ten forged steel blocks of *Open Field Vertical/Horizontal Elevations* (For Breughel and Martin Schwander) (1978-80) [3.11] in a rough circle, inviting cyclical rather than linear engagement. ²³⁷ Later, Serra returned to using long steel plates against the sloping contours of the land, but to very different effect. The change is most dramatic in Sea Level (1988-96) [3.12], located in Zeewolde, a Dutch lowlands town that

the photograph represents." See Alex Potts, *The Sculptural Imagination: Figurative*, *Modernist*, *Minimalist* (New Haven: Yale University, 2000), p. 268. Potts makes a fine point, since inevitably the human eye scans any image rather than taking it in all at once, but in focusing exclusively on the ways that photography can include time he addresses only part of Serra's objection to photography. Basically Potts's viewer — "looking and walking" virtually — is able to knit space and time together adequately enough that she can situate herself reasonably well in the space depicted. For Serra, though, space is important as a substrate for the "looking and walking" body; however much the thoughtful viewer of a photograph can spatially imagine a sculpture's site, she cannot help but miss out on the spatial surprises and ambiguities that arise in the encounter between the sculpture and the upright, binocular viewer.

²³⁶ Lynne Cooke, "Thinking on Your Feet: Richard Serra's Sculpture in Landscape," in Kynaston McShine and Lynne Cooke, eds., *Richard Serra Sculpture: Forty Years* (New York: The Museum of Modern Art, 2007), p. 102.

²³⁷ From some angles – particularly in a photograph – a viewer might encounter some of its elements as a roughly receding line, but the sense of totality implied by perspectival constructions would be undermined by the knowledge that elements of the sculpture escaped that "frame."

owes its existence to dikes that slope in the distance above Serra's sculpture. The ocean is at some distance, not visible from the sculpture. Even in reproduction, though, the earth's lowness is palpable and the vulnerability of that particular spot is visceral; the sculpture seems less to frame space than to hold off an imagined weight.

The continuity and change in Serra's practice both matter here. Serra's continued production of landscape sculpture suggests that while he found the genre problematically limited – its seclusion from the messiness of the everyday and the fact that most people encountered it through photography – he did not consider it fully off limits. On the contrary, I want to suggest that during the early 1970s, before Serra began focusing intensely on the relationship of his sculpture to the urban site, one of those limitations – the dependence on the camera – was a central preoccupation, a problem so pressing that it had to be turned into a generative force within the work rather than avoided. This is why it is interesting that there is a decided break in his landscape production after *Spin Out*. Eventually the formal language of Serra's landscape sculpture opened up a good deal, but at the beginning it was quite narrowly focused. During the time that Serra was focused on undoing Renaissance perspective in the landscape, moreover, his contemporaneous photographic projects, films, and videos returned again and again to the problems of what the visual abstractions of the camera might do to perception in general, and in some cases to perception of Serra's sculptural forms in particular.

2. Strike

The previous chapter discussed Serra's development of an expanded notion of sculptural form, but for most of the 1960s it did not make much sense to speak in a more local sense about Serra's use of *particular* forms. That began to change late in 1969, after Jasper Johns invited Serra over to his studio to make a splashed lead sculpture [Fig 3.13]. Serra seems to have worked on it for several days over the New Year – the end result, Splash Piece: Casting is dated 1969-70 – and while it would be overstating the case to say that the results reflect some kind of revolution, the work does mark a change in Serra's practice. The previous summer, he had made *Casting* (addressed briefly in Chapter One) by repeatedly treating the corner formed by the wall and the floor of the Whitney Museum as a mold, throwing lead into it, prying away the long, right-angled masses that resulted, lining them up across the room, and leaving one cast in its "mold" in order to make the process absolutely clear [Fig. 3.14]. The work Serra made for Johns was a corner piece that built on *Casting*. His operations on the work's right side were especially close to what he had done in the Whitney: he has cast that corner three times, twice pulling the results away from the wall at a diagonal that projects out into the room and leaving the third form in place. On the left, he did something a bit different, casting the corner formed by the floor and a long, low, rectangular plate of lead so that a single L-shaped form projected out from each wall into the space of a room. [Fig. 3.15]. During a rest break Serra wedged one of the plate's ends into the corner, and then became very interested in the fact that it could stand freely in this position.²³⁸ He cast the plate while it thus projected outward, and left it in place in the final arrangement of Splash Piece: Casting, underlining the sense of discovery (this is easiest to get a sense of in the

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²³⁸ Author's conversation with the artist, July 8, 2009.

photograph where Serra appears with Johns [Fig. 3.13]). More importantly, though, he went on to use his discovery as the basis for *Strike (To Roberta and Rudy)* (1969-71) [Fig 3.6].

This work was pivotal for Serra in a number of ways – I have already mentioned that it was the first work by Serra that defined a space that the viewer could enter. Strike also changed Serra's sculpture materially and procedurally. He had discovered steel's artistic potential in the Skullcracker Yards of Kaiser Steel in the summer of 1969, but it not until Strike that he began working seriously with the metal. The sculpture's industrial scale and product, moreover, required a new mode of working. While the lead for the splash pieces could be melted on a kitchen stove and even the larger lead Props were installed by hand, working with steel meant that he would have to purchase his materials from factories (ready-made for Strike, but produced to his specifications for most later works) and hire professional riggers to put his sculpture into place. For someone as focused on process as Serra, these procedural changes inevitably shifted his sculpture's meaning and mode of address. ²³⁹ So too did the fact that he was suddenly working with large, simple planes. As discussed in Chapter One, earlier use of sprawling forms and loose, malleable materials often prompted critics to describe his sculpture as postminimalist; works from Strike on have more often than not been described as minimalist. 240 Once again, though, morphological similarities do not tell the whole story.

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²³⁹ Serra discusses this transition in the essay "Rigging," in *Richard Serra*: Writings/Interviews, p. 97-102. In 1986 Crimp argued that beginning to work with riggers was a crucial shift in Serra's career. "Beginning with *Strike*, Serra's work would require the professional labor of others, not only for the manufacture of the sculpture's material elements but also to 'make' the sculpture, that is, to put it in the condition or position for use, to constitute the material *as* sculpture. It is this exclusive reliance on the industrial labor force (a force signaled with a very particular resonance by the sculpture's name) that distinguishes Serra's production after the early 1970s as public in scope, not only because the scale of the work had dramatically increased, but because the private domain of the artist's studio could no longer be the site of production." In "Redefining Site Specificity," Foster and Hughes, ed. *Richard Serra* (October Files) (Cambridge, Massachusetts: MIT Press), p. 154.

²⁴⁰ This is such a pervasive tendency that it is better sampled than surveyed. For Peter Schjeldahl writing soon after the installation of *Tilted Arc*, the problems with the sculpture amounted to an indictment on a grand scale of all of the problems with minimalism. See "Artistic Control," *Village Voice* October 14-21, 191 (100-101). In Hal Foster's influential essay "The Crux of Minimalism," Serra is folded in with the minimalists from the beginning. "ABC art, primary structures, literalist art, minimalism: most of the terms for the relevant work of Carl Andre, Larry Bell, Dan Flavin, Donald Judd, Sol LeWitt, Robert Morris, Richard serra, and others suggest that this art is not only inexpressive but almost infantile." In *The Return of the Real: The Avant-Garde at the End of the Century* (Cambridge, Massachusetts: MIT Press, 1996), p. 35. Despite Serra's preference for associating himself with Eva Hesse, Bruce Nauman, and composer such as Philip Glass and Steve Reich, Alex Potts writes, "in retrospect, and increasingly so after successive waves of post-modern and late modernist fashion, Serra's unbending commitment to working with a set of simple basic forms and materials does make him

Unlike Donald Judd and Robert Morris – who, for all of their differences, both intended for their geometrically straightforward objects to be comprehended in their entirety all at once²⁴¹ – Serra used edge of his planes as a pictorial element. He was interested, he told Liza Bear, in "how an edge functions as a line, cutting cross-sectionally into space. Edges were used as drawing elements, not to delineate shape, not to construct part-to-part relationships, but to point into space, or direct, or cut, or juxtapose volumes of space."²⁴² With these drawing elements he would introduce vectors, pressures, fields of gravity – forces that would exist in tension with the architectural givens. "There's an intangible quality to a gravitational field," he said. "The degree to which I can articulate it through edge, boundary, centering, dislocation, mass, and volume, is the degree to which I can point to an experience." The key terms here are "intangible" and "point to an experience": the sculptural experience in question was not literal; it had to do with the way that the sculpture altered the feeling of the room in order to create a feeling that was not *of* the room, but developed both within and in opposition to its architectural container. As do the Props, these works function counterfactually.

Throughout the 1970s, perhaps the most basic sculptural element Serra used to "point to an experience" was a large rectangular plate of hot-rolled steel like the one that had constituted *Strike*. In some sculptures Serra arranged these elements in relatively complex, quasi-Constructivist forms: this was the case in the steel Props he made in 1971, for example, and in the first urban site-specific sculptures such as *Sight Point (For Leo Castelli)* (1972-75) and *Terminal* (1978). In retrospect, though, it seems that the greatest perceptual complexity arose when he stayed with simpler arrangements. To begin with the simplest example: because *Strike* projects out of a corner, there is no place where the viewer can look at it head-on and see its surface as a rectangular plane, even though she knows it to be. If one stands fairly near the sculpture's outer edge it seems to recede into the corner; if one stands near the corner that holds the sculpture up, the opposite movement appears to take place. Such recession sounds unremarkable enough on paper, since the viewer raised in the Western pictorial tradition fully expects such

something of a Minimalist. That he refuses comparison with Judd and Andre, with whom, for viewers at least, he has certain clear affinities, almost goes without saying, given the competitiveness and generation consciousness of the contemporary art world." In *The Sculptural Imagination: Figurative, Modernist, Minimalist* (New Haven: Yale University Press, 2000), p. 255-57.

²⁴¹ See Donald Judd, "Specific Objects," in *Donald Judd: Complete Writings 1959-1975: Gallery Reviews, Book Reviews, Articles, Letters to the Editor, Reports, Statements, Complaints* (Nova Scotia: The Press of the Nova Scotia College of Art and Design, 1975), p. 181-189, originally published in *Arts Yearbook 8*, 1965, and Robert Morris, "Notes on Sculpture, Part 1," in *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge, Massachusetts: MIT Press), p. 7 (originally published in *Artforum*, February 1966). As discussed in Chapter 1, Morris's priorities in this respect began to change around 1966.

²⁴² "Interview by Liza Bear," in *Richard Serra: Writings/Interviews*, p. 46.

²⁴³ Richard Serra and Lizzie Borden, "About Drawing: An Interview," in *Richard Serra:* Writings/Interviews, p. 56 (originally published in *Richard Serra, Tekeningen/Drawings* 1971-1977 [Amsterdam: Stedelijk Museum, 1977]).

effects; what makes it noteworthy is that when one stands close to the sculpture it seems truly appropriate to speak of being in its orbit; the plane does not simply recede but appears to curve away into the distance, and Serra's talk of a "gravitational field" created by the sculpture begins to make visceral sense. In fact, if curvature is indeed the effect of gravity on space, then the physics of Serra's descriptive language may be more accurate than he sometimes allows. "The work can be perceived as plane—line—plane as you walk around the single sheet of steel," he has noted. 244 It is true enough that one *can* perceive it that way, and doing so has allowed Krauss to produce some remarkable writing on the sculpture. 245 Yet thinking of it in those geometric terms means setting aside precisely that embodied perceptual experience which is Krauss's focus. Something surprising happens as one moves from one side of the sculpture to the other; the fact that the edge is a line – and at 1 ½ inches not a terribly thick one – means that there is a moment when the viewer can see both sides of the plane, peering down one with the left eye and one with the right. In this moment the whole sculpture seems to bow out, very briefly becoming convex on both sides. One does see "plane—line—plane," but one sees them, in condensed form, all at once. It possibly creates a kind of *punctum* in the viewer's perception of the work, one that is not produced by marking a climax or gesturing expressively but by rupturing apparently neutral visual experience with a fleeting illusion.

The next major work in which Serra let hot-rolled steel plates stand as fundamental elements was *Circuit* (1972) [Fig. 3.7]. There too the plates can seem to have a momentary convexity, these moments are less definitive because other perceptual effects take precedence. When one enters the work – which one does from an opening in the middle of its outer walls, lined up with the center passageway – its overall geometry is not clear. It is not just the sculpture's overall footprint is not perceptible,

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²⁴⁴ Serra and Borden, "About Drawing," p. 55.

²⁴⁵ Rosalind Krauss likens the linear edge of *Strike* to the cut in a film, "operating the 'cut' on space itself and organizing it in relation to the viewer's body, so that the interdependence of body and space – coming apart and being put back together – is choreographed in relation to the work...And because it is the viewer, moving through the space, who is the operator of this cut, its activity becomes a function of his perceptual work as well; he is working with it to reconvene the continuity of his own lived world." See "Richard Serra: Sculpture" in Foster and Hughes, eds. *Richard Serra*, p. 119-20. ²⁴⁶ Here it should be said that it matters very much where one encounters *Circuit*. During Serra's 2007 retrospective at the Museum of Modern Art, Circuit II (1972) was installed in a space with large entrances on three sides; the passage between the four plates was open quite wide. The Museum's fire code required viewers to be able to circulate freely in and out (conversation with Lynne Cooke, May 10, 2007), but these restrictions did the work no favors. I had a much better look at Circuit itself the previous summer at Situation Kunst in Bochum, Germany, where it is permanently on view in a square purpose-built building. There the opening in the center of the work is wide enough that a single person can be confident that she need not angle her shoulders to pass through, but not wider than that; the door that allows entry closes flush with the wall, essentially ceasing to inform one's experience of the work once it is shut. The installation is not quite claustrophobic, but it does create a sense of compression that the sculpture seems to require.

though of course that does not immediately become as perfectly apparent as it is in the birds'-eye photographs of it that Serra most often reproduces. It is also that the plates are so large – eight by twenty-four feet, as in Strike – that they flatten out as their outer flanks spread out into one's field of vision. As a result, the quarter of the work that one enters does not *feel* like a quarter; it seems rather as though the plates come together at an obtuse angle, as though the space were more expansive than it really is. This misapprehension corrects itself as the viewer moves to work's center, but this is not a permanent fix: moving to the passage at the middle of the work makes its logic clear, but it does not mean that the experience of the work comes to fit that logic. Depending on where in the thirty-six-foot-square room one stands, the work can seem dynamic or somewhat stolid [Figs. 3.16-17]. Its geometry also seem strangely hard to grasp: the sculpture's four central edges mark out the corners of a square, but a mobile, two-eyed body cannot get that square to sit still and *look* like a square. The images that come nearest to capturing this wobbly effect are a series of drawing Serra made after Circuit had been first been installed, reproducing what he saw in the sculpture's center as he moved around its edge [Fig. 3.18].

I do not mean to produce an encyclopedic catalog of the perceptual surprises to be found in *Strike* and *Circuit*: experiencing the dissonance between actual and experienced geometries is quite exciting, describing them in detail, less so. Nor, Serra has argued, is that account fully to the point. Discussing *Delineator* (1974) [Fig. 3.19] – another major work in which the expanse, orientation, and force of unaltered hot-rolled steel plates come together to form a "gravitational field" – he outlined the limitations of such analysis.

The juxtaposition of the steel plates forming this open cross generates a volume of space which has an inside and an outside, openings and directions, aboves, belows, rights, lefts – coordinates to your body that you understand when you walk through it. Now you might say that sounds quite esoteric. Well, one of the things that you get into as you become more in tune with articulating space is that space systems are different than linguistic systems in that they're nondescriptive...Any linguistic mapping or reconstruction by analogy, or any verbalization or interpretation or explanation, even of this kind, is a linguistic debasement, because it isn't even true in a parallel way.²⁴⁷

Serra no doubt meant this seriously, just as he meant seriously the objections to photography that he raised in conversation with Douglas Crimp. The points are, moreover, internally consistent: both language and photography perform a kind of reduction of sculptural experience, though of somewhat different sorts. Yet few artists have spoken as articulately about their own work as Serra, and – again – few have been as well served by photography or as consistent in their approaches to the reproduction of their art.

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²⁴⁷ Interview by Liza Bear, "Sight Point '71-75, Delineator '74-76," in Richard Serra: Writings/Interviews, p. 36.

One reason it is worth attempting some exposition of our upright, binocular experience of works such as *Strike*, *Circuit* and – shortly – *Delineator* is in order to be as clear as possible about what kind of transformations *do* take place when the works are reproduced as photographs. I have just sampled the irregularity of experience that the sculptures themselves provide; efforts to be more comprehensive would still only constitute a sample (Serra is right that language cannot do it all here, even if it is more interesting to try than he credits). By dramatic contrast, though, the basic effect of photography on these sculptures is easy to state: take a picture of an eight-by-twenty-four-foot rectangular plate of hot-rolled steel and – as long as one is not photographing it head-on, which is a physical impossibility if one wants to reproduce these three sculptures as they are installed – the result look like be a trapezoid.

This point may seem to be utterly banal. Yet the fact that a rectangle viewed obliquely appears as a trapezoid is something that Serra has examined with an almost tedious intensity, once in a film that he shot not long before conceiving *Strike* in Johns's studio, once in a photo project that he executed soon after work on *Strike* was underway. Serra's sculpture may be known for foregrounding the experience of embodied vision over abstract knowledge, in other words, but it was under the shadow of the camera and its visual abstractions that *Strike* began.

The first of these works, the twenty-two minute 1969 film *Frame*, was shot by Robert Fiore in black and white. It has four sections. In the first of these, Fiore aimed the camera at a blank screen, and Serra used a six-inch ruler to measure the frame of the viewfinder – which as actor in this film rather than director of it, he could not see [Fig. 3.20]. With Fiore's verbal instruction Serra worked to keep the ruler in a straight line, which he drew on the wall in pencil. He measured the real space of what the camera saw, in other words, and found that it did not quite match up to the rectangle that the camera's viewfinder made it appear to be onscreen. The next shot appears to show at a plain white screen [Fig. 3.21], but once Fiore has finished directing Serra's measurements the result is a trapezoid: Fiore has dollied the camera to the side, and what Serra has ended up measuring is the camera's angle of incidence to the wall rather than a form given by any realities in the room. In the third section Fiore filmed the frame of a window from an angle [Fig. 3.22]; as expected, Serra measured it out to be a rectangle (more or less – he discovered as the film progressed that the sill had either sunken out of alignment over the years or had never been constructed properly in the first place) though we see it as a trapezoid. That image is reversed in the final section, in which Fiore projected a film of a view out the window onto a screen and then filmed it [Fig 3.23], angling his camera to the projection so that the frame looked square. Serra's measurement, once again, tells us that despite all appearances, the real space claimed by this projection is a trapezoid.

These efforts are somewhat maddening to watch: Serra's demeanor is gruffly businesslike, but his behavior is more than a little obsessive. He had deliberately chosen the six-inch ruler, knowing that it would be ill-suited to the task of measuring a fairly large projected square (he drops it not infrequently, and has a hard time establishing a straight line), because using it would make clear that the act of measurement was the problem at hand – and indeed, under the conditions he set himself, almost an impossibility. The film's repetitiveness is also a declaration of sorts: Serra "needs" not only to measure out every inch of the difference between the illusionistic space of film and the space of lived reality, he must also do it from every possible angle. In the process

this difference – which is of course an illusion in itself – takes on its own oddly tangible reality.

A few years later, Serra told Annette Michelson that in retrospect the film had helped him with his thinking about sculpture by clarifying the difference between its space and film space. "At the time I probably didn't realize it," he said, "but it has since seemed to me to be one of the reasons for doing the film." The difference, he told her, had to do with "a basic flat illusion of film, there isn't any real space." One need not go to such lengths just to prove a point that is apparently so obvious, though, and one certainly need not perform the proof twice – but by early the following year Serra had done just that, this time working with a still camera and a cardboard frame. In the winter of 1970, the publisher, critic, and curator Willoughby Sharp asked Serra and twenty-six other artists to make works on Pier 18, an abandoned structure jutting into the Hudson. 249 For Shooting a Square thru a Trapezoid, Camera Angle Measured (dated 1971, when Projects: Pier 18 was on view at the Museum of Modern Art, rather than 1970, when the work was executed), Serra went to the pier with Sharp and Liza Bear, and the photographic collaborators Harry Shunk and Janos Kender (known as Shunk-Kender), who documented the whole affair [Fig. 3.24]. Serra excised a trapezoidal hole from a large piece of cardboard, writing the title of the work at the bottom of that frame and the dimensions of the form along each edge. He then took twelve photographs of the surrounding scene, shooting through the trapezoid at an oblique angle in order to produce a square image. His camera's six-by-six-centimeter film certified the shape of the final image, and he guaranteed that he made full use of the trapezoidal frame by including it in the photograph with the title and the written dimensions visible. The resulting photographs are much more carefully composed than one might expect: we look straight down the pier from a few different positions; foreground objects stand straight up and down in the middle of the frame, sit flat across it, or assume a kind of squat symmetry. In any case, despite the photographs' clarity and great depth of field (which may be a kind of technical byproduct – Serra wanted square images, which are generally only available with very good cameras), the resulting visual space is stolid, a bit flat. Point proven, then, yet again: film offers up only an illusion of space, and a fragile one at that – and it can lie to us about what we see. But does any of this have to do with sculpture?

The sculpture that Serra told Michelson he had in mind when he mad *Frame* was *Cutting: Base Plate Measure* (1969) [Fig 3.25], in which a steel "base plate" served as a template that he used in cutting wood, steel, and lead. One thing this act of cutting did was to foreground process, since the only thing unifying the sculpture was the cutting action that had been performed upon it. It also gave Serra a system of measurement internal to the sculpture – something that he had engaged with at least since his

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²⁴⁸ Annette Michelson, "The Films of Richard Serra: An Interview," in Foster and Hughes, eds., *Richard Serra*, p. 33.

²⁴⁹ Quoted by Lynne Cooke, "From Site to Non-Site: An Introduction to *Mixed Use*, *Manhattan*" in Lynne Cooke, Douglas Crimp, and Kristin Poor, eds., *Mixed Use*, *Manhattan: Photography and Related Practices*, *1970s to the Present* (Cambridge, Massachusetts: MIT Press, 2010), p. 37.

²⁵⁰ Shunk also took the famous photographs of works by Serra and others in *9 at Castelli*, discussed in Chapter One.

Duchampian *Two Rulers Measuring Each Other* (1967) [Fig. 3.26] – but also one specific to that work. His approach to this idea grew more sophisticated as time went on. Serra presents it again in more evolved form in proposing that *Shift* measures the landscape; by the same logic, his argument that gallery-based works such as *Strike*, *Circuit*, and *Delineator* create a different space within the room is an argument that they provide a kind of measure. *Cutting* and *Two Rulers* works enjoy a kind of indexical redundancy; from *Strike* on, by contrast, Serra's sculpture – indoors and out – tends to introduce a kind of observer effect, in which the very act of viewing changes the phenomenon being observed: the sculptures thus provide a kind of measure of the space they inhabit, but in doing so, change it.

In 1983, Yve-Alain Bois published an essay about the importance of parallax in Serra's sculpture, beginning with *Strike*. He defines the term by citing *Webster's New World Dictionary* — "Parallax, from Greek *parallaxis*, 'change': 'the apparent change in the position of an object resulting from the change in the...position from which it is viewed" — and argues that the effect gives Serra a way to undermine the Gestalt and access something like the Kantian sublime. As Bois acknowledges, Serra's published writings and interviews seem to refer explicitly to this effect only once, in a discussion of *Spin Out (For Bob Smithson)*: "There's a certain parallax... First you see the plates as parallel; when you walk left, they move right. As you walk into them, they open up, and there's a certain kind of centrifugal push into the side of the hill." Parallax is also the effect at work when *Circuit*'s angles seem to spread wide when seen from the center of the room's outer walls, when *Strike* seems to curve into the near distance when a viewer's path hugs one of the sculpture's flanks, and when the upper edge of *Shift's* walls seem to function as a horizon around which the landscape rises and falls.

The word "parallax" is used to describe an effect, but also the measurement of that effect, especially in the case of stars viewed from different points in the earth's orbit. And while the word's ancient Greek roots refer to change – I have now substituted my *American Heritage* for Bois's *Webster's* – its somewhat more modern usage in sixteenth-century France, *parallaxe*, also refers more generally to the fact of seeing wrongly. *American Heritage* notes, too, that the difference between looking at the world and looking at it through a camera's lens is an especially clear example of parallax. It is a useful word, then, for reasons beyond those that Bois explores. If we think of parallax as a mechanism of measurement, it helps us gauge what sort of relation is going on when *Spin Out* effects "a certain kind of centrifugal push into the side of the hill." Parallax accounts for the observer effect that takes place with this kind of measurement, too: it makes "seeing wrongly" part of the process of seeing sculpture at all.

It is thus interesting that Serra seems first to have explored parallax in *Frame*, not *Strike*, and that once *Strike* was underway he promptly followed up with *Shooting a Square thru a Trapezoid, Camera Angle Measured*. Both of these camera-based projects explore parallax in Bois's sense. Each is premised on a number of parallactic notions:

²⁵¹ Yve-Alain Bois, "A Picturesque Stroll around *Clara-Clara*," in Foster and Hughes, eds., *Richard Serra*, p. 65.

²⁵² Bois, "A Picturesque Stroll," p. 82-86.

²⁵³ Interview by Liza Bear, "Document: *Spin Out* '72-'73," in *Richard Serra: Writings/Interviews*, p. 15-16.

that relatively slight shifts in the viewer's position can change an object or image in both position and form; that these shifts can be acts of measurement; that this measurement could be technically correct and still "wrong;" that this wrongness could nonetheless form the substance of our experience of a work. It is possible, then, to take the fact that things in *Frame* and *Shooting a Square thru a Trapezoid, Camera Angle Measured* literally do not add up as a simple a punch line – but we could also say that, like the Props discussed in the previous chapter, these two camera-based works are counterfactual, that they are fictions with a perceptual reality.

Superficially, all that these works have in common with *Strike* and the related sculptures following it is a form [Fig. 3.27]. On its own this is not much: the form, after all, was just a rectangle that was sometimes viewed askance. That the form is such a basic integer, however, makes it in both cases a useful subject for investigation of a certain mode of viewership. What Serra found in the photographic experiments were errors, failures of logic to match up to experience: indeed both of these works serve largely as declarations of weakness in the abstractions of the camera (and all the more so of the ruler that he uses in *Frame*). In *Strike*, on the other hand, he found that the "seeing wrongly" of parallax produced spatial ambiguities and visual events that exceeded the apparent minimalism of the materials. The latter proposition, clearly, is much more powerful – but it was developed through incorporating and transforming the viewfinder's abstracting weakness.

3. Shift

Perhaps a year went by between the shooting of *Frame* and the production of Serra's first video, *Anxious Automation* [Fig. 3.2] – certainly the latter was made sometime during the late summer or autumn of 1970. At this time, Serra's sculpture was very much in transition. The first three sculptures in which the viewer's ambulatory experience was a constitutive element – *Strike (To Roberta and Rudy)* (1969-71), *Pulitzer Piece (Stepped Elevation)* (1970-71), and *Shift* (1970-72) had all been begun but not completed. Serra had thus just barely initiated the project of developing a form of sculpture in which the relationship between the viewer, the sculptural object, and the surrounding environment would be simultaneously forged and disarticulated by acts of parallactic vision. Like *Frame* and *Shooting a Square thru a Trapezoid, Camera Angle*

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²⁵⁴ The commission for *Shift* came about because Serra came back from Japan eager to work outside; upon returning he convinced Roger Davidson to let him execute it on farmland that the Toronto collector owned. As part of the bargain he also made an untitled steel sculpture at Davidson's home. As Lynne Cooke described it, it "entailed inserting a plate of 1 3/8-inch steel, measuring eight by twenty-four-feet, into a slope in the patron's wooded suburban garden, then cutting the plate with a blowtorch where it met the ground. Index to the unseen, the cut section lay adjacent to the embedded part, whose form was visible only along its exposed edge, where it read as a line tracing the shifting contours of the sloping terrain." See "Thinking on Your Feet," p. 80. Serra wanted to make *Shift* in steel as well, but used concrete for budgetary reasons. Serra secured the (more straightforward) commission for *Pulitzer Piece* soon thereafter. The bulk of the work on both landscape sculptures took place during the summer of 1970.

Measured, Anxious Automation is not only an exploration of a technical apparatus —in this case, video — but an important document of this moment in Serra's thinking as a sculptor. At the very moment that he was developing the outdoor sculptural vocabulary that Rosalind Krauss would, as we have seen, describe as being profoundly and satisfyingly reciprocal, he was also using video to explore another version of mutuality, one that he set forth as being compulsory and uncomfortable.

As the title implies, *Anxious Automation* is hectic, excessive, and chaotic: three different velocities – Jonas's movements, the cameras' regulated but out-of-sync zooms, and Glass's off-kilter beats – have been calculated to contradict each other, and the resulting arrhythmias are almost physically unpleasant. Yet the perceptual difficulty is not merely a matter of overload: Serra has aimed at the sensorium in a more calculated way as well. As the essay in the *Castelli-Sonnabend Videotapes and Films* catalog points out, "The effect of the tape is similar to switching from one eye to the other, jerking the image from side to side or back and forth in space." And indeed, the way Serra "edited" the video by punching back and forth between the two cameras served to force a fractured, emphatically unfused binocular vision onto the monocular camera, refusing to allow the camera to serve as our neutral proxy and setting up an uncomfortable friction between body and machine.

The title is more ambiguous than may seem. It is not exactly clear who or what is anxious – the viewer, perhaps, but a discomfited viewer was the shared purpose of many videos from the early seventies, so there is nothing unusual there. Nor does it seem quite right to say that Jonas is technology's anxious subject – or even its anxiety-producing object. True, her image is wrenched around so roughly that she may seem to be a prisoner of the technology. At the same time, her cool gaze secures her status as performer; her watchfulness matters, as she seems clearly to be in communication with the recording and editing apparatus throughout. ²⁵⁶ Still, while her performance is a deliberate collaboration with the video apparatus, she has no direct experience of the violence it performs on her image: the structure of her performance internalizes the "automation," but at the same time the apparatus remains alien, a force foreign to her experience that serves to define *our* experience of her performance.

Nor is it immediately clear what the "automation" in question is. Again, the easy answer – it is the video apparatus – does not seem quite right, for in neither the filming nor the editing is Serra working with anything like standard settings. Rather, the automation seems to be the unfolding of the whole process, which, from the soundtrack to the editing to the movements of camera and performer, was worked out in advance – adapting a technique developed by another late-sixties process artist, Serra's friend, the

²⁵⁵ Castelli-Sonnabend Tapes and Films, Inc., collection catalog (New York, Castelli-Sonnabend Tapes and Films, 1974), np.

²⁵⁶ A summary in an unpublished typescript from the Castelli-Sonnabend Tapes and Films archives tries to attribute anxiety to Jonas but cannot quite bring itself to do so: "we seem to be watching a fit worthy of an insane asylum before drugs, though from [Jonas's] lips we can tell she was in actuality quite calm." "Richard Serra and Joan Jonas: ANXIOUS AUTOMATION." Typescript in the Leo Castelli Gallery Archives, Archives of American Art, Box 171, Folder 42: Castelli/Sonnabend Tapes and Films: Administrative, Richard Serra, Film Descriptions.

composer and musician Steve Reich. By beginning in unison and gradually moving out of synch, the operation of the whole apparatus adapts Reich's phasing process, a musical technique that he developed after he noticed that if he simultaneously played two magnetic audiotapes, each containing the same material, imperfections in the analog medium would mean that the two recordings would go out of phase, resulting in strange sounds that seemed improvisatory even though they were mechanical in origin. Feich's first experiments with phasing were fully automated, but in the 1967 work *Piano Phase* — the score of which the musician traded for Serra's 1968 process sculpture *Candle Piece* — he began to mimic the effect of phasing in the live performance of music, an approximation that Serra amplifies in the audio-visual context of *Anxious Automation*. Essential context of *Anxious Automation*.

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I draw the observation that Reich's phasing is at work in *Anxious Automation* from William Kaizen, "The Immediate: Video and the Aesthetics of Liveness, from Andy Warhol to Postminimalism" (Doctoral Dissertation, Columbia University, 2006). Kaizen's focus, as the title of his project suggests, was on the illusion of "liveness" that the use of phasing brought to the project. "Phase shifting produced liveness through a live effect generated with recording media and recorded material," he writes, adding a bit later, "What makes this video anxious is the incessant switching which drives it In operating the switcher Serra occupies a fundamental part of televisual liveness: that on broadcast television editing takes place live, between several cameras, while a program is going on...Breaking through the illusion of live switching on television he disconnects his real time edits from Jonas's movement as well as from the soundtrack They all swirl around each other, producing a whole greater than the sum of its parts. Serra puts the various parts of the televisual editing system on display by disjunctively rejoining them into a cubist display of its parts assembled into a time-based collage. As Pablo Picasso had shattered Daniel-Henry Kahnweiler along the surface of the canvas, Jonas is spread out across the screen of the television monitor" (p. 169, 171-2).

were Glass, Spalding Gray, and Robert Fiore), Low Rate Movers. During the Whitney Museum's exhibition *Anti-Illusion*, Serra also performed in Reich's *Pendulum Music* (1969) alongside Glass, Bruce Nauman, and James Tenney. Speaking of this group, Serra later said "we were all into process and time. It didn't matter whether you were a sculptor of a filmmaker or a musician, the underpinnings of what you were interested in were time and its extension. I remember Steve [Reich] did a tape of the voice of a young black kid who got arrested and wanted to get out of the holding tank, so he said *he was going to squeeze till the blood came out to show* them so he could go to the hospital. Reich took that recorded statement and looped it. The phrase is repeated over and over again till it gradually goes out of phase and becomes just a rhythmic sound. Here was Steve dealing with form, structure, and political content." See Kynaston McShine, "A Conversation about Work with Richard Serra," in McShine and Lynne Cooke, eds., (New York: The Museum of Modern Art, 2007), p. 26.

²⁵⁸ "The musical material in *Piano Phase* is simply a number of repeating melodic patterns which may be learned and memorized in several minutes. The score then shows that two musicians begin in unison playing the same pattern over and over again and that while one of them stays put, the other gradually increases his tempo so as to slowly move one beat ahead of the other," Steve Reich, "Notes on Composition, 1965-1973," in

Reich discussed phasing in terms very much resonant with Serra's *Verb List* (1967-68): the artist initiated a process partly in order to be surprised by results that would not have been achieved had the proceedings been directed primarily by his intentions. "Listening to an extremely gradual musical process opens my ears to *it*," Reich wrote, "but *it* always extends farther than I can hear, and that makes it interesting to listen to the musical process again." Likewise, Serra does not create an anxious feeling here by carefully executing Eisensteinian intentions, but by winding a procedural mechanism up and letting it roll. Anxiety may be one result, but it is not exactly personal. The approximated phasing process maintains a sort of neutrality; the video's anxiety is not so much pervasive (passed or threaded through the whole) as distributed and free-floating. *Verb List* includes not only verbs that activate artworks but states they might inhabit ("of inertia, of ionization, of polarization, of refraction, of simultaneity..."); here one might say that there is something "of anxiety" that attaches to Jonas, to the video apparatus, and to the viewer who can only view the scene *through* that machinery, but that none of them act in order to secure its meaning. That is the business of the process.

Of course this is not to say that process has the same role to play in *Anxious* Automation that it had in, for example, Hand Catching Lead. That film certainly has a complex relationship to the medium of sculpture and the history of modernist cinema – Rosalind Krauss is convincing on these matters²⁶⁰ — but in some ways it is a pretty simple document. The process (catching and sometimes missing), the actor (the hand), and the vehicle of the process (the sheet of lead) are discrete entities, and distinct from the camera that records these facts. By contrast, all of the actions constituting *Anxious* Automation – Jonas's movements, the cameras' zooming and recording, the accelerating and decelerating of the soundtrack, Serra's "punching" – become part of the process or "automation," labors divided so as to be better integrated into the whole. Not that this process-as-machine runs perfectly: Jonas's steady gaze alone is enough to make clear that she is more than the vehicle of process that the video's machinery would take her to be; that gaze thus serves to announce both the reductive violence that the whole does to the parts in dividing their labors, and the failure of the "automation" to smooth its own rough edges (the happy failure, I should say: Jonas's self-possession is one of the few genuinely enjoyable aspects of the video).

An imperfectly executed process need not produce anxiety: despite the film's title, for example, the hand in *Hand Catching Lead* often *misses* the lead, especially towards the end. These successes and failures, though, do not have much affective charge; the camera is a simple observer, and so are we. In *Anxious Automation*, though, the video cameras are essential parts of the process; because the mock-binocular vision that arises in the punching back and forth between the camera's two focal lengths is physically affecting, the cameras pull us into this helter-skelter "automation" and makes us part of the circuit. The performer, the viewer, and the eyes behind the camera share next to

Writings about Music (Halifax: The Press of the Nova Scotia College for Art and Design, and New York: New York University Press), 1974, p. 51.

²⁵⁹ Reich, "Music as a Gradual Process," *Writings about Music*, p. 11. Sol LeWitt makes a similar point in "Sentences on Conceptual Art," originally published in *0-9* (New York, 1969).

²⁶⁰ Rosalind Krauss, "Richard Serra: Sculpture," p. 102-104.

nothing in their respective experiences of the video, but they are locked into a kind of reciprocal arrangement as the mechanism that Serra has set up burns itself out.

Serra has said that while he used video on a number of occasions, it was never – unlike film –one of his "prime concerns." His videos, perhaps as a result of their secondary status in his *oeuvre*, tend to have the air of one-offs. While *Anxious Automation* is one of a handful of films that Serra saw as investigating "the internal structure and components of the medium" of video, his approach to the medium in it is diagnostic rather than expansive; he seems more interested in figuring out what is wrong with the medium's structure than in transforming it. ²⁶¹ Yet Serra's process-based approach to *Anxious Automation* does serve in a way to make the mechanism his own, or at least to lay claim, with mixed feelings, to some of the problems it presents – its tendencies to force perception to fit its parameters and to draw the viewer to it in a system of mutual dependence.

If adapting process art in order to examine the video apparatus was worth the effort, perhaps this was because doing so could reflect back on the sculpture that engaged Serra at the time. The landscape elevations that largely preoccupied Serra during the early seventies would not have been recognizable as "process art" in the final years of sixties: *Shift*, for example, did not embody a specific, identifiable action; it did not perform its own creation before the eyes of its audience, fusing the time of making and the time of viewing; it was relatively stable materially; it was fixed in place, so there it offered no sense that there would come a moment when, its duration completed, it must cease to exist. As we have seen, however, Serra did not make subjective compositional decisions in composing the work, but determined its form by identifying and enacting a series of processes. First, he established the overall boundaries of the work by tracking his and Jonas's mutual gazes:

In the summer of 1970, Joan (Jonas) and I spent five days walking the place. We discovered that two people walking the distance of the field opposite one another, attempting to keep each other in view despite the curvature of the land, would mutually determine a topological definition of the space. The boundaries of the work became the maximum distance two people could occupy and still keep each other in view. The horizon of the work was established by the possibility of maintaining this mutual viewpoint. ²⁶²

After that, he located the apex of each hill and ran an 8-inch, concrete wall out from that point so that it reached a height of five feet. As a result the "fall of the slope determine[d the] direction, shape, and length of each section." ²⁶³ If *Shift* was not a process work in the textbook sense of the phrase, then, it nonetheless built on the concepts and priorities that had driven Serra's process art a few years earlier – as in *Anxious Automation*, he put

²⁶¹ "Interview by Bernard Lemarche-Vadel," in *Richard Serra: Writings/Interviews*, p. 117.

²⁶² Serra, "Shift," in *Richard Serra: Writings/Interviews*, p. 11.

²⁶³ Serra, "Shift," in *Richard Serra: Writings/Interviews*, p. 11.

a relatively complex system in place and let it run its course. As mentioned earlier, moreover, Serra went on to describe the concrete elements themselves in active terms:

These steps relate to a continually shifting horizon, and as measurements, they are totally transitive: elevating, lowering, extending, foreshortening, contracting, compressing, and turning. The line as a visual element, per step, becomes a transitive verb.²⁶⁴

In grammatical terms, Krauss points out, this construction of process insists on a kind of mutuality, reinforcing the overall definition of the work by the meeting of Serra and Jonas's gazes. "The parade of infinitives" in the 1966-67 *Verb List*, she writes,

suggests acts to be performed *on* an object, in its passivity. Whereas this list of gerunds, even as it is enacted by the continuity of the progressive tense, seems to indicate an action that is reflexive – modifying the subject in the process of modifying the object. Neither pole of the action is named, but the type of action imagined – foreshortening, contracting, turning – implies a field of reciprocity, as though it were impossible to think of an object without thinking at the same time about the way *it* carved out and determined a place for *oneself*.

Krauss is on her way, here, to her declaration that "the horizon is redefined not as a spatial limit operated by measurement but as a coordinating limit operated by meaning," and to her citation of Merleau Ponty's statement that "the inner horizon of an object cannot become an object without the surrounding objects' becoming a horizon and so vision is an act with two facets." These passages looks somewhat different, however, in light of *Frame, Shooting a Square thru a Trapezoid, Camera Angle Measured*, and *Anxious Automation* (and again, Serra had executed the first two of these works the year before beginning *Shift*, and undertook the first phases of the sculpture and made the video contemporaneously). These works had –very much in line with Krauss's thinking –rather thoroughly disarticulated the notion of "a spatial limit operated by measurement." They also, however, greatly complicated Merleau-Ponty's notion that "vision is an act with two facets." Their collective implication is that vision may rather be an act with *many* facets, and perhaps it might be better to think of them as splinters. Mutuality, *Anxious Automation* reminds us, is not always an easy communion.

I am not proposing that *mutuality* is not important here: in the first paragraph of "Shift" cognates of the word appear twice (indeed, twice in the brief section I just quoted), and Serra translates the idea into other words another three times. It was a major point of emphasis. Nor, again, would I propose that one should see doubt and struggle akin to that found in *Anxious Automation* as being defining features of *Shift*: on the contrary, as I noted above, the sculpture unfolds in its bucolic setting quite contemplatively. *Anxious Automation* does, however, serve as a reminder that mutuality

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²⁶⁴ Serra, "Shift," in *Richard Serra: Writings/Interviews*, p.

²⁶⁵ Krauss, "Richard Serra: Sculpture," in Foster and Hughes, eds., p. 129-30.

is not necessarily established freely and fully through completely open channels: the utterly unrestricted relation that Krauss finds on offer in *Shift* is, at best, very rare.

Perhaps more to the point. I do not think that it is guite what is on offer in the King City farmland. To be sure, the work was extremely different when I went to see it in the summer of 2006 than it was when Serra first built it. For one thing, it is not by accident that in the most reproduced photograph of *Shift* the surrounding ground is covered in snow [Fig. 3.4]. The field was active agriculturally even when Serra made the sculpture, so, depending on what was planted, summer would often have been a poor time to see the work – but now the weeds are so high that the crucial upper edges of the walls are largely obscured.²⁶⁶ Experiencing the work, then, currently takes a good deal of imagination. The fact is, however, when one is on the ground in the work, some imagination is always required. The snowbound overhead view was taken from the East Hill overlooking the field – a spot fairly removed from the direct experience of the sculpture. 267 From that hill you can see all of *Shift*'s six elements stretching out across the work's entire 815-foot extent. In the middle of that distance, though, when one is surrounded by the field's gentle hills, most of the sculpture is out of sight. Its elevations do rise and fall against each other with a slow but satisfying rhythm, and the fact that its horizons are five feet tall at their maximum means that it is easy for just about any viewer to involve herself in the direct measurement of those shifts. As immediate as that bodily relation and as direct as that experience may be, however, when one tries to find what Serra said that he wanted for the work – again, "a dialectic between one's perception of the place in totality and one's relation to the field as walked" – it is constantly necessary to call on memory, both of what one has just walked and of what one had seen from above, and to project one's expectations (the next wall is going to rise up behind this one now....no...now!...no...).

This play of memory and expectation is hard to account for within Krauss's phenomenological description of *Shift*. One is in her "field of reciprocity," certainly: the sculpture constantly corrects and readjusts both memory and expectation, while the latter constantly make and remake the sculpture in turn. It does not seem quite right to follow her in saying, however, that "one will discover a network a horizons, a system that will constantly reorganize itself not as one stands back and surveys the terrain, but as one gives way to the topographical embrace." Giving way to that embrace is part of the experience, but so is pulling back – not literally *standing* back and surveying, but relying on what one knows of and has experienced of the work. A good deal of that knowledge and experience is not to be found in the topographical embrace, but through other systems and media.

These are multiple. There is, for one thing, the fact that Serra recalls perspectival traditions in order to refute them, so what the experience denies becomes an important part of the experience. More crucially, for just about anyone motivated to make the trip to King City, Ontario, specifically to see this sculpture, there will also be the memory of

²⁶⁶ Lynne Cooke notes, for example, that the field was sown with potatoes when Serra and Jonas staked it out in the summer of 1970. See "Thinking on Your Feet," p. 70.

²⁶⁷ Location identified in Krauss, "Richard Serra: Sculpture," in Laura Rosenstock, ed.,

Richard Serra: Sculpture (New York: Museum of Modern Art, 1986), p. 30. ²⁶⁸ Krauss, "Richard Serra: Sculpture," in Foster and Hughes, eds., p. 130.

photographs. Many of the photographs Serra has reproduced of the sculpture are straightforward and fairly modest—the same kinds of partial views that one has in the midst of the field. [Fig. 3.28]. Even the most iconic and descriptive of the images, the one that offers an overhead view of the sculpture [Fig. 3.4], seems to seek to undo the gods'eye-view confidence of that perspective. It is crisscrossed with footprints, invitations to traverse the field mentally. Some of these tracks follow the sculpture's zigzagging path, but others loop around as if to insist on the fact that this process of walking and looking is not to be classically purposeful. There is also a figure standing in the far distance, looking back in the direction of the camera, insisting on the mutuality of views. The line running between "here" and "there" is jagged, active; it seems readily reversible, and leaves it easy to imagine that it is we, the viewers of the photograph, who are in the far distance. Similarly attentive to the gaze, Serra has reproduced a still from a video made when Shift was being surveyed [Fig. 3.29]. In looking at it we look over the shoulder of the surveyor; the sculpture is not yet in place but the photograph makes our gaze upon it tangible even in its absence, insisting on idea that in this sculptural space the vectors of our vision have a real productive power – again, this makes the sculpture itself seem somewhat provisional. Finally, Serra also frequently reproduces the professional results of that survey [Fig. 3.30] – the elevational plan for the sculpture, which in its crackling technical draftsmanship insists on the importance of mapping the whole, keeping the boundaries of the sculpture alive even as we encounter more modest aspects of the work moment-by-moment. These are all highly interpretive images, some of them are pretty powerful graphically; when one encounters the sculpture after seeing them they do not drop away in the face of lived experience, they simply become another part of that experience – no more or less real than the rest of it.

Such mediated encounters with sculpture are exactly what Serra denounced in his 1980 conversation with Douglas Crimp, discussed earlier. In the early seventies, though, he treated this kind of mediation as something to be managed rather than denied. There is vet another time-based project that Serra executed with Joan Jonas – the only work the two artists co-authored – that is helpful here, the nine-minute film *Paul Revere* (1971). It is a kind of didactic film. Throughout, an authoritative Jonas provides voiceover narration as the camera trains an uninflected eye on a series of inter-titles – the artists referred to them as instructional cards – and simple hand-held props including two 2000-watt light bulbs, one bell, one clock, and one lantern. From Jonas's first lines, the results feels rather like something developed to be shown in an 8th-grade classroom. "The film you are viewing will demonstrate, with your attention and cooperation, an operative process in communication." As Jonas's words suggest, the film's content is technical rather than historical, its focus not the Revolutionary War hero himself but the code that launched his famous ride: "one if by land, two if by sea." Reading along with one of the instructional cards [Fig. 3.31], Jonas outlines the model. "The continuous signal, no light: 'no British.' Presence of light: 'British are coming.' One light (which cross-references absence of one light): 'British are coming by land.' Two lights (which cross-references as absence of one light): British are coming by sea."

In the September 1971 issue of *Artforum*, Jonas and Serra published a comprehensive progression of stills from the *Paul Revere* alongside its full text, and in their introduction the source of the film's rather precise language becomes clear. It is adapted, they tell us, from Ray L. Birdwhistell's book *Kinesics and Context: Essays on*

Body Motion Communication. Birdwhistell, a student of Gregory Bateson and Margaret Meade, was an anthropologist whose focus was body language and bodily interaction. Following Meade, he used film as an analytical tool, using it to identify *kinemes* within larger body movements. Following Bateson, he tied his anthropological work to information theory as it had been developed in a telecommunications context.

Birdwhistell's approach was essayistic rather than systematic. He was also, as one reviewer put it, "very insistent that we can never state the meaning of a behavioral unit except in terms of its place within a context...For him, to ask what a given unit of body motion 'means' is to ask what its *use* is." Neither the smile nor the salute means anything except when related to a larger environment, a particular cultural context. He among is generated through interaction, in the present moment. There may well be a communication of feeling going on, but it is a negotiation, something does not emerge fully formed from some pure source. It is an attitude well suited to a generation of artists who were skeptical of expressionism. He was also, as one

The essay Jonas and Serra adapted for the film – narrating large parts of it word-for-word – is one, called "'Redundancy' in Multichannel Communication Systems," that Birdwhistell had presented to the American Orthopsychiatric Association in 1962. ²⁷¹ In it Birdwhistell argued with the priorities reflected in the research of some of his fellow specialists – no surprise there, really, given the venue – but the concerns behind his objections were broader, and quite sympathetic with Serra's statements on language and the physical experience of sculpture. Too often, Birdwhistell contended, the tendency in communications theory is to focus primarily on verbal communication, assuming that words provide the central message of a communication and bodily behavior acts only to modify it. The investigator who takes this approach, he wrote,

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²⁶⁹ Adam Kendon, review of *Kinesics and Context: Essays on Body Motion Communication*, in *The American Journal of Psychology*, Vol. 85, No. 3 (September 1972), p. 448.

²⁷⁰ Serra and Jonas were not the only members of the downtown scene to engage with Birdwhistell and kinesics more broadly; the actor Richard Schechner,— and the District Attorney in Serra's *Prisoner's Dilemma* – became very involved in using kinesics to analyze actors' movements. See Richard Schechner and Cynthia Mintz, "Kinesics and Performance," *The Drama Review: TDR*, Vol. 17, No. 3, Theatre and the Social Sciences (Sep., 1973), p. 102-8. In the same issue, see Schechner, "A Discussion with Daniel N. Stern," p.114-26. Stern was a student of Birdwhistell's; in the interview, he told Schechner that he had met with Yvonne Rainer and Steve Paxton when they were working with Grand Union and discussed correlations between the use of freeze-frame film in kinesic study and the very slow movements that featured in some of Grand Union's choreography at the time.

²⁷¹ Ray L. Birdwhistell, "'Redundancy' in Multi-Channel Communication System," in *Kinesics and Context: Essays on Body Motion Communication* (Philadelphia: University of Pennsylvania Press, 1970), p. 85-91. The American Orthopsychiatric Association, which is still active, was founded in 1923. It is dedicated to the multidisciplinary study of the interaction between the individual and his or her surroundings.

will find methodological companionship among those who separate the communicational stream into the cognitive and the affective (or emotive). Review of the literature is persuasive that some researchers have used far less rigorous methods for describing the behavior defined as affective than they do for the so-called cognitive aspects of the interactions. Nor will [the researcher's] efforts be unsympathetically received by those who are quite disciplined in their descriptions of linguistic behavior (which they recognize as digital in shape) but who become poetic and indistinct as they deal with other behaviors which they predefine as analogic.²⁷²

The paper is pretty brief: Birdwhistell devoted a few paragraphs to the contention that it is possible to study all physical and behavioral "channels" of communication with the same level of rigor that researchers bring to the study of language, but spent most of his time developing a model that demonstrated the inadequacy of a simple verbal system, that of Paul Revere.

Paul Revere follows Birdwhistell verbatim for two pages on this matter; for our purposes a paraphrase is enough. "One if by land, two if by sea" is all well and good if conditions are perfect and nothing unexpected happens. But perhaps the wind has blown out the light, or perhaps one of the farmers on the lookout will simply worry that it had done so, and not trust the message. Perhaps he will hallucinate a light where there is none. The communicators can try to make the system more reliable by using a second church tower reinforce messages from the first, and a bell rings to bring a useful redundancy to that system—except these additions create new opportunities for error as well as potentially correcting those errors. The system only works at night. The system only works if the French do not unexpectedly show up instead of the British. "Finally, and in these times" — these times being 1962, the height of the Cold War and of the use of communications theory in military strategy — "I cannot resist this. The system has built into it the assumption that the British can only approach with malevolent intent. What if they are landing on a peaceful excursion? The system is, in other words, enormously complex – many layers of redundancy must go into making it work – and quite fragile. There is no point when Birdwhistell concludes that there are finally enough channels that the message will definitely get across.

The narration of this model drives the film's simple actions. Bulbs turn on and off; instructional cards are wiped on and off the screen. [Fig. 3.32] A finger – Serra's, it would seem – points to statements on the cards as Jonas's voice reads them. A hand-held clock rings, and rings, and rings. By its third ring Jonas has narrated seemingly endless contingencies, and an instructional card bearing the words "Look at the bell towers" appears and remains in a holding pattern through a long, final section of narration:

This is an exceedingly simple model of one phase of the communication process. It is intended only to direct attention to certain problems of communicational analysis. Yet, if we use even this simple example and imagine it multiplied astronomically, we gain some insight into the task

²⁷³ Birdwhistell, "'Redundancy' in Multi-Channel Communication System," p. 91.

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²⁷² Birdwhistell, "Redundancy' in Multi-Channel Communication System," p. 87

faced by a child in becoming a sane member of his society. Finally, it enables us to focus on the fact that if a child internalizes the logic of such a flexible, dynamic, and ultimately uncomplicated system, he has learned to solve the problems solved by normal children of every society.

The language here is fairly confident, but everything suggests that this mastery involves a fairly big "if." The filmmakers reinforce that doubt, allowing the visuals to pall and feel increasingly irrelevant to the act of communication being described, until finally they switch the instructional card to one that reiterates Jonas's words as she speaks the film's concluding sentence: "This process may tell us something about the nature of sanity and, by extension, insanity."

After nine minutes of didactic exposition, this conclusion is unexpected. (Is this what has been at stake all this time?) Yet taken within a larger context the film's closing is not truly surprising; an interest in the tendency of systems to break down appears around this time in the work of friends and peers such as Sol LeWitt, Eva Hesse, and Robert Smithson. If anything, the fact that the ending seems to come out of left field suggests that it had been the central point all along. The interesting thing about Birdwhistell's model is that it does not quite break down. It certainly can – it is so close to doing so, he suggests, that it is a wonder anything ever comes off at all. When it does, the text implies, it is because the person trying to make sense of the world – though perhaps here we should be both more modest and relevant in our aims and speak of the person trying to make sense of art – can coordinate many different kinds of information into a single understanding or experience. In the case of *Shift*, that means pulling together a wide variety of photographic images, a minimal (at least) understanding of pictorial traditions, a carefully descriptive text, and, if one is lucky or persistent, a direct encounter with a sculpture and an opportunity to process and reconsider all of that mediation – to do some mediating of one's own. Shift is an unusually large and complex work, and we might encounter it in more aspects than we do other works by Serra, but this same kind of coordination of disparate or even contradictory information has been important in my discussions of *Strike* in this chapter, the Props in the previous, and *Scatter Piece* (1967) in Chapter One.

Joan Jonas has been a constant presence in this chapter: she and Serra had a romantic relationship that lasted roughly from the beginning of 1968 to the end of 1971, and in that time they contributed materially to each other's work in fascinating ways. Each has offered anecdotes that strongly suggest that the business of art-making permeated their relationship, but neither has ever made more than glancing references to the connections between the works they made during their romantic partnership. Their bodies of work are very different – a fact that is all the more obvious today, as Serra has been very dedicated in his pursuit of abstraction, while Jonas has, since producing *The Juniper Tree* ("a story told again and again, mostly by women, and then written down by the brothers Grimm") in 1976, developed a multi-layered, multi-media approach to narrative. Their relative silence on their personal connection and the broad differences between their *oeuvres* make it difficult to say much about the nature of their artistic exchange during these years, but works together, though relatively few in number (I

²⁷⁴ Jonas, "The Juniper Tree (1976)," in Cantz, ed., p. 166.

discuss all of them in this chapter) suggest that it was quite intense. Focusing on these projects seems the only relatively reliable way to identify what conceptual points of intersection there may have been in their art, and what kinds of aesthetic problems or commitments they may have shared.

Certainly, their collaborative work on Birdwhistell points even more strongly to Jonas's art than to Serra's. Indeed, the introduction to the film that Jonas and Serra printed in *Artforum* states that the film is "an adaptation from two sources: *Kinesics and Context* by Ray L. Birdwhistell, and *Choreomania*, a performance by Joan Jonas."²⁷⁵ The title of Jonas's 1971 multimedia performance ties in nicely to the final sentence of Birdwhistell's text: to speak of choreography gone manic is to invoke more than a wild dance; "choreography" is not literally the writing of dance but the writing of the chorus (*khoros*); it is the art of maintaining togetherness, of maintaining the pattern of the group. To introduce a mania into such an art is perhaps also a "process [that] may tell us something about the nature of sanity and, by extension, insanity."

Since all of *Paul Revere*'s manifest content comes from Birdwhistell's book. Choreomania must be a "source" in a looser, more interpretive sense. The performance took place in Jonas's Grand Street loft [Fig. 3.33]. Its central element was a large wall – constructed by Serra – suspended from a beam in the ceiling so that it could be swung back and forth and side to side. The right third of its surface was mirrored, so the audience was able to see itself as events unfolded – fractured, though, and in motion. It was an architectural evolution of *Mirror Piece I* and *II* (1969-70) [Fig. 3.34]. Performers in these works had held full-length mirrors in front of them as they moved, reflecting the audience back on itself. The simple descriptive title had much less to say about the togetherness of the group than does *Choreomania*, but the complexity of that togetherness was at issue even here as the mirrors shaped the space in between audience and performers, bringing them together –for the audience saw its own image mingling with the actions of the performers – but also insisting on the distance between them, since that togetherness was achieved at the cost of fracturing one part of the group, obscuring the view of the other (the traditionally exhibitionist part), and inserting an illusion into the intermediary space.

In a 1975 interview given the retrospective title "7 Years," Jonas looked back to the *Mirror Pieces* and *Choreomania* and said that this space had been the essential medium of work whether it was executed in performance or in video.

My own thinking and production has focused on issues of space — ways of dislocating it, attenuating it, flattening it, turning it inside out, always attempting to explore it without ever giving to myself or to others the permission to penetrate it. I have returned again and again to a specific set of formal/material metaphors with which to shape this space. The two most important of these are the mirror — with its capacity to interrupt and therefore to fragment deep space and its property of disorientation through left-right reversal — and the transmission of signals through a dislocating medium, such as very deep landscape that creates delays and relays of the

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²⁷⁵ Jonas and Serra, "Paul Revere," p. 65.

signal, or the video feedback, which both dislocates and fragments the signal.²⁷⁶

Jonas's approach to these "dislocating media" grew more complex after returning from the trip she and Serra made to Japan in 1970; she does not seem to have spoken of spending time in the Zen gardens, but works like the *Mirror Pieces* would have certainly primed her to take great interest in the way that the "medium" of the gardens was space as it was shaped by objects rather than the objects themselves. It was after their return that she began making works that centered on "a very deep landscape that creates delays and relays of the signal," such as *Jones Beach Piece* (1970) [Fig. 3.35-36], in which the audience and performers were separated by the distance of a quarter mile.

At that distance perception itself becomes focused down toward the reception of signals, and the piece was shaped by the way that the space related to or intervened in the processing of these signals. Sound functioned in terms of a delay/relay system, in effect a sound delay. A performer stood in the far space, on in the middle space, and a third next to the audience, clapping blocks of wood together repeatedly. In the far space, the act of hitting blocks of wood was perceived before the sound was heard – distending the distance that separates the two perceptual fields of sight and sound....Distance flattens space, erases or alters sound, and modifies scale. Performers were given simple patterns to run: perpendicular and parallel to the audience and curvilinear and circular. Movements tend to become two-dimensional due to the illusion of the depth of field. As a way of pointing to the reduction of complex pattern to the univocal effect of a signal, and as a way of cutting through the depth of the space, I sat behind the performers on top of a ladder holding a mirror through which I could reflect the sun's rays into the audience's eyes.²⁷⁷

In *Nova Scotia Beach Dance* (1971) [Fig. 3.37] the audience watched the performance from the top of a cliff that rose above two slopes that formed a V-shaped visual channel, framing the beach below, flattening it and making it appear to tilt towards the sky. "From that vantage and within the illusion of flatness created by it, the actions of the performers were transformed into linear lines and planes."

The trip to Japan also, of course, led to the acquisition of the video camera. Her early experiments with it also mixed multiplicity and obfuscation with a media-crossing exploration of mediation. In *Veil* (1971) [Fig. 3.38] shot on tape and transferred to film, she created a the effect of a wipe in film through performance, setting the technology aside and instead covering her face in layers of silks, fur, and velvets painted with images of the Sphinx and other orientalist designs and pulling them off one at a time. Thematically and structurally, the video was closely related to *Choreomania*. During

²⁷⁶ Joan Jonas with Rosalind Krauss, "Seven Years," in *The Drama Review: TDR*, Vol. 19, No. 1 (March, 1975), p. 13.

²⁷⁷ Jonas, "Jones Beach Piece (1970), Nova Scotia Beach Dance (1971)," in Schmidt., ed., p. 73.

parts of the performance Jonas used the suspended wall as a screen, projecting Egyptian frescoes [Fig. 3.39], Renaissance portraits, and Oriental rugs onto its surface; the right-hand third of the wall was mirrored. Douglas Crimp attended the performance, and later gave a full account.

Because this [mirrored] wall is also the fourth wall of the spectator's space, the illusion is created that their space is swaying. The main function of the wall is to fragment the performance in such a way that much of the performance action is seen only around the wall's four edges. The appearing/disappearing actions recall a magic show...

Two performers, each holding variously colored light bulbs, stand at opposite sides of the wall, slightly behind it. As the slowly swinging wall hides one performer, it reveals the other, who makes a particular facial expression ad flashes a colored light on and off. As the wall swings in the other direction, the other performer is revealed. Each time the wall swings, the opposite performer is seen making a new expression. The wall functions like the 'wipe' in film editing.²⁷⁸

The wall, as Chrissie Iles has summarized, "delineated the space of the performance, operating at once as stage, film screen, reflection, wall, and sculptural object." It would seem to be in part this multiplicity that serves as a "source" for Paul Revere, for certainly here Jonas treats all channels of communication – all behaviors and signals – as coordinated events rather than dominant messages with modifiers. Iles continued her observation about the wall by pointing out that its "form reflected the transition which had taken place from painting to sculpture during the 1960s."²⁷⁹ This is true enough, but the relationship to *Paul Revere* suggests that there is more to it than that: it was not enough to be free with medium, or to turn the modernist privileging of painting over sculpture on its head; one needed a theory of communication to deal with the sheer proliferation of media, and with the fact that technology tended to (but did not quite) homogenize them. A performance called *Choreomania* is not likely to provide a cleanly functioning model of that theory, of course; the wall condensed media like overdetermined dream-stuff, but at the same time it served to structure and be structured by the body movements of the performers: "all of the choreography of *Choreomania*," Jonas later said, "came from working on the wall, appearing and disappearing over the top, around the sides."²⁸⁰

²⁷⁸ Crimp, "Choreomania," in Jonas, Joan. Scripts and Descriptions, 1968-1982 (Berkeley: University of California Press, 1983), p. 22, 24.

²⁷⁹ Chrissie Iles, "Reflective Spaces: Film and Video in the Work of Joan Jonas," http://www.transmag.org/mailer/essays.htm

²⁸⁰ Jonas, "Interview with Joan Simon," in Johann-Karl Schmidt, ed., *Joan Jonas: Performance Video Installation*, *1968-2000* (Stuttgart: Galerie der Stadt Stuggart, 2001), p. 27.

"Richard Serra designed this wall for me," Jonas later told Joan Simon. "Because of his own work, he was interested in the idea of perception around the edges of the wall."281 This cannot mean, I think, that the wall was Serra's idea: its structure and function are too closely knitted into the work that Jonas had been executing for the previous two-to-three years. He was making, I assume, what she had asked him to. This makes her statement of his interests more compelling, though, rather than less: it tells us what aspects of her work he was the most conceptually invested in (she remarks that he was interested in this for his own work, but it is also notable that this "magic-show" like movement around the edges is, in Crimp's description above, a defining part of Choreomania), and which conceptual investments of his were the most memorable and important to her. They came together, in other words, on the primary importance of the space around the object.

We have seen that during these years, whether Jonas was exploring the space of performance, film, or video, she handled "medium" largely as a kind of in-between, a resistant space whose friction could be made to signify about social relations, about the structuring of the private and public selves, and – particularly after she and Serra parted ways – about gender. By contrast, it was just around the time that the two artists began their association that One-Ton Prop (House of Cards) prompted Serra to give serious thought to a particular medium, sculpture. ²⁸² Between that moment and his production of landscape elevations such as Shift, however, Serra increasingly came to understand the medium of sculpture in a manner that reflects Jonas's medium-as-intermediary. In gallery-based works such as Strike he had been struck by the fact that the sculpture generated a kind of alternate reality within the room it inhabited, but it was only in Shift and related works that he began to treat the space around the work as something the work could *sculpt*. The void mattered, perhaps more even than the forms framing it. This was especially true in *Shift*, where for budgetary those forms consisted of concrete rather than the more precise, tensile steel whose exploration Serra would make so central to his work later on.

In discussing the planning of *Shift*, Krauss introduces Jonas's role at the other end of the field and then turns her attentions very quickly "from the interpersonal to an interaction with space itself." Certainly, especially as compared to Jonas's, Serra's sense of space was quite abstract. Yet as we have seen, he was also very attentive to the ways that spatial experience was inevitably mediated, and it is useful, when thinking about the way he and Jonas worked to define Shift's outer limits, to consider Jonas's insistence that a reciprocal gaze might serve not as a kind of communion (à la Krauss) but might instead transform space into a "dislocating medium." Certainly, Serra has never turned that dislocation into the shifting ground on which to examine social and psychic forces, as Jonas went on to do. We might see him, however, sharing some of the ethical concern reflected in Jonas's stated aim of exploring space "without ever giving to myself or to others the permission to penetrate it." The way that the two artists traversed the field attempting to maintain the largest possible whole that would allow them to see eye-to-eye almost literally establishes the work as being ethically bounded. Nor are its contents ever

²⁸¹ Jonas, "Interview with Joan Simon," p. 27.

²⁸² As I discussed in Chapter Two, that particularity did not translate into a purist attitude toward medium specificity.

given in a top-down way, both because the viewer is constantly gauging herself against the landscape and vice versa, and because she is having to rely on her own mediated memory in order to keep establish any sense of the whole. Serra thus follows Jonas's in refusing to let either the viewer or the camera take possession of the space, and making that refusal part of *Shift's* reason for being.

Conclusion

In January 1952, the anthropologist Gregory Bateson went to the San Francisco Zoo (then called the Fleishacker Zoo). He was looking, he later said,

for behavioral criteria which would indicate whether any given organism is or is not able to recognize that the signs emitted by itself and other members of the species are signals...What I encountered at the zoo was a phenomenon well known to everybody: I saw two young monkeys *playing*, *i.e.*, engaged in an interactive sequence of which the unit actions or signals were similar to but not the same as those of combat. It was evident, even to the human observer, that the sequence as a whole was not combat, and evident to the human observer that to the participant monkeys this was "not combat."

Now, this phenomenon, play, could only occur if the participant organisms were capable of some degree of metacommunication, *i.e.*, of exchanging signals which would carry the message "this is play."²⁸³

The idea of metacommunication was central for Bateson, and this model – based on animals, whether monkeys, dogs, or dolphins – was one of his most common means of exemplifying it. This conception of metacommunication, like many of the ideas that have come up here with regard to Richard Serra's early work, can be tied back to Bertrand Russell's "theory of logical types." "The central thesis of this theory," as Bateson explained it, "is that there is a discontinuity between a class and its members. The class cannot be a member of itself nor can one of the members be the class, since the term used for the class is of a *different level of abstraction* – a different Logical Type – from terms used for its members." For Bateson, the centrally important implication of this theory was that any time one wanted to communicate about communication, one had to use a different *kind* of language, with a different level of abstraction. Serra

²⁸³ Gregory Bateson, "A Theory of Play and Fantasy," in *Steps to an Ecology of Mind* (Chicago and London: University of Chicago Press, 1972), p. 179. Originally published in *A.P.A. Psychiatric Research Reports*, II, 1955.

²⁸⁴ Bateson, "Toward a Theory of Schizophrenia," in *Steps to an Ecology of Mind*, p. 202. ²⁸⁵ Note that this does not imply a "higher" level of abstraction. Whatever kinaesthetic signal the monkeys were sending to each other that indicated that their roughhousing was indeed play and not aggression was not more sophisticated than the roughhousing itself;

paraphrased this idea in 1983 (without attributing it to Russell, Bateson, or anyone else), "Every language has a structure about which nothing critical in that language can be said. To criticize a language, there must be a second language dealing with the structure of the first but possessing a new structure." ²⁸⁶

The theory of logical types has come up most directly in speaking of Hal Foster's discussion of Serra's "medium-differential" approach to sculpture. The theory allows Foster to describe Serra's sculpture as being absolute unto itself – "he insists on the absolute status of sculpture as a language of its own; in the above statement he intends 'structure' in a categorical way" – but also to claim that Serra's sculpture functions deconstructively in relation to other media,

that his sculpture *partakes* of the other languages of painting an architecture *in the very articulation of its difference*. Thus even as his sculpture opposes painting in the guise of figure-ground conventions, it also partakes of the pictorial in the sense of the picturesque. And even as it critiques architecture in the guise of scenographic kitsch, it also partakes of the architectural in the sense of the tectonic.²⁸⁷

Foster's model here is enormously useful – I have adapted it here in Chapter Two – but for the work under consideration it is too limited in its scope, aiming as it does exclusively to explain the relationship of Serra's work to other artistic media at a time when Serra was frequently using his art to engage with cold war discourses and psychological and anthropological theories. It is worth pointing out, though, that Foster's point of departure is a statement that Serra made in 1976. This is just about the moment that Serra referred to in our interview when he said that:

as your work becomes more directed towards certain aspects, although you try to maintain a certain type of playful activity, the broader notion of where you're going to play – the field – I think this happens to everybody

it was simply different that it was *about* a thing, while the monkeys' play was simply the thing itself.

²⁸⁷ Hal Foster, "The Un/making of Sculpture," in Foster and Gordon Hughes, eds., *Richard Serra* (The October Files) (Cambridge, Massachusetts: MIT Press, 2000), p. 182-83.

²⁸⁸ "What does making sculpture mean to you right now?, Liza Bear asked Serra in 1976. After a long pause, in which he looked back over ten years of mature work, Serra replied: 'It means a life-time involvement, that's what it means. It means to follow the direction of the work I opened up early on for myself and try to make the most abstract moves within that...To work out of my own work, and to build whatever's necessary so that the work remains open and vital.'" See Foster, "The Un/making of Sculpture," p. 175. Over the course of his essay Foster repeats the boldfaced question fourteen times; much of the text is dedicated to parsing Serra's response.

²⁸⁶ Peter Eisenman, "Interview," in *Richard Serra: Writings/Interviews*, p. 146. Originally published in *Skyline*, 1983.

– starts narrowing. At one point I decided I was really interested in, quote, sculpture. 289

Foster's focus in the essay is really what happened *after* that decision by Serra: while Foster mentions works made before that point, everything builds towards a discussion of works made closer to the essay's 1998 publication date.

Theoretical structures either based on or loosely resembling the theory of logical types show up several times, though, in the earlier, broader field of play that I have outlined in this dissertation. Most notably, the theory underpins Alfred North Whitehead's "Forms of Process" (not surprisingly, as Russell and Whitehead developed the theory in collaboration and published it together in the *Principia Mathematica*), the essay that Serra cited in his 1970 reflection on his process art and Props, "Play it Again, Sam.")²⁹⁰ In this essay, Whitehead describes the universe as a succession of logical types.

There is a large element of accident in a single sentence of a lecture. The lecture as a whole reflects with some necessity the character of the lecturer as he composes it. The character of the lecturer arises from the moulding it receives from the social circumstances of his whole life. These social circumstances depend on the historic epoch, and this epoch is derivative from the evolution of life on this planet. Life on this planet depends on the order observed throughout the spatio-temporal stellar system, as disclosed in our experience. These special forms of order exhibit no final necessity whatsoever...There is transition within the dominant order; and there is transition to new forms of dominant order. Such transition is a frustration of the prevalent dominance. And yet it is the realization of that vibrant novelty which elicits the excitement of life.²⁹¹

Each moment of actuality – Whitehead begins with a sentence in his lecture, but one might begin instead with a single, somewhat arbitrary action performed on a receptive material in order to produce a work of art – can have a high degree of accident or a high degree of necessity, which one might gloss as a greater level of descriptive power. Because these moments are in constant process and transition (Whitehead's sentence, for example, moves towards greater necessity as he delivers the lecture and his audience begins to make sense of it as a whole), these moments of actuality call each other forth,

²⁸⁹ Author's conversation with the artist, July 8, 2009. Since the narrowing of a field is a process rather than a discrete event I have avoided being too precise about dating, but Serra arrived in New York in 1966 and the latest work I have focused on here is *Delineator* (1974-76), so in practical terms Bear's 1976 conversation with Serra would seem to coincide nicely with Serra's decision that sculpture was his real interest.

²⁹⁰ Whitehead and Russell published three volumes of *Principia Mathematica* with Cambridge University Press in 1910, 1912, 1913, along with an appendix in 1927. Richard Serra, "Play it again, Sam," in *Richard Serra: Writings/Interviews* (Chicago: University of Chicago Press, 1994), p. 8.

²⁹¹ Alfred North Whitehead, *Modes of Thought* (Toronto: Collier-Macmillan Canada, 1966), p. 88. Originally published in 1938.

almost demanding, to follow Serra, that the structure of "the second language deal...with the structure of the first" – and do so in relation to "the infinitude of relations in the historic world and in the realm of form." ²⁹²

There does not seem to be any connection between Anton Ehrenzweig and Russell – certainly there were none so direct as the teacher-student and collaborative relationships that existed between Whitehead and Russell. Ehrenzweig's insistence that a successful artwork must be the joint product of dedifferentiated and conscious perception, though, is usefully thought in terms of the theory of logical types. He is most insistent that art cannot be a fully conscious production: conscious perception has neither the depth nor complexity of dedifferentiated vision; it is limited to processing the abstract facts of the world, geometrical forms and their conceptual cognates, and thus cannot encompass the complexity and contradiction that give the world its vitality. Ehrenzweig also complains, however, that modern art tends too much towards dedifferentiation – a weak position because viewers will very quickly develop a conscious understanding of it. 293 Both conscious and unconscious perception possess a *structure*, and the task of the artist is to relate those structures meaningfully. Art must function, to use a quasimathematical analogy totally foreign to Ehrenzweig's own language, as a set that is responsive to the structures of both conscious and dedifferentiated percepts (or at least it must do so if it is any good). If "class cannot be a member of itself nor can one of the members be the class," then art can neither be identical either to the sheer stuff that fills the sensorium nor to the forces driving abstract thought.

Ray L. Birdwhistell's connections to the theory of logical types are more direct than Ehrenzweig's – he does not talk about Russell either, but he was a student of Bateson's, and *Kinesics and Context* reflects the extent to which Russell's theory permeated the older anthropologist's thinking and teaching.²⁹⁴ In the essay that Serra and Joan Jonas take as the basis for *Paul Revere* (1971), Birdwhistell describes communication as a kind of set, and one that is, *pace* Whitehead, in "continuous process." This process, he writes, is

made up of a series of discrete, arbitrary elements – and none of these elements has explicit or implicit social meaning in and of itself. However, when, following analysis, our levels are reassembled in observational time, the whole becomes a continuous process. The exciting thing about such an assembled, multilevel description of the communicational process is that it becomes immediately clear that it is just as easy (and unrewarding) to describe the lexical material as modifiers of the remainder

²⁹² Whitehead, *Modes of Thought*, p. 89.

²⁹³ Anton Ehrenzweig, *The Hidden Order of Art* (Berkeley: University of California Press, 1967), p. 69.

²⁹⁴ For example his bibliography cites Bateson's "The Message 'This is Play," in Bert Shaffner, ed. *Group Processes: Transactions of the Second Conference of the Josiah Macy, Jr. Foundation* (Princeton, October 9-12, 1955). This talk is very similar in its content to "A Theory of Play and Fantasy," the essay I began with, which Bateson delivered the same year in Mexico City.

of the behavior as it is to define the remainder of the communicational behavior as modifying the lexical. ²⁹⁵

Like Ehrenzweig, then, Birdwhistell cautions against letting a member of the set– in this case, lexical material – come to stand for the whole.

I am well aware that the theoretical connections I am drawing here would not hold up in a work of philosophy. But the point here is not to produce a watertight analysis of the theory of logical types and its appearance in mid-twentieth-century thought. It is, rather, to identify formal commonalities between the theoretical constructs that Serra found useful and productive. What ties all of these ideas together is an insistence on different orders of experience, on the proposal that any meaningful experience involves both a material component and a more abstract framework that indicates how the material component is to be processed. One might add that this latter component is all the more necessary when the meaningful experience in question is, specifically, a work of art.

These ideas collectively offer a useful approach to questions of literalism and signification. One might define literalism in terms of the law of logical types as an effort to clarify the orders of an art experience: an artwork should be both self-evident in its basic material component and unitary in its physical arrangement. Donald Judd argued that "specific objects" that met these ideals would have a "power" that was no longer present in either painting or sculpture (and thus would put a pressure a kind of pressure on each medium – a precedent for what Foster describes as Serra's "medium-differential" approach); Robert Morris, meanwhile, wrote somewhat wistfully about the impossible ideal of an art object "that has only one property" and concluded that, at the very least, "the better new work takes relationships out of the work and makes them a function of space, light, and the viewer's field of vision"). ²⁹⁶ One implication of these ideals is of course that, on its more abstract levels of significance, the literalist object would communicate in relation to art history and the spaces of art. Unlike Bateson's monkeys, who played combatively but generated a context for their play that indicated it was "not combat" – in which the metacommunication contradicted the original signal – literalist objects sculptures generate a context that reinforces their status as art objects, insisting that the art experience is *about* the contemplation of the art experience.²⁹⁷

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²⁹⁵ Birdwhistell, "'Redundancy' in Multichannel Communication Systems" in *Kinesics and Context: Essays on Body Motion Communication* (Philadelphia: University of Pennsylvania Press, 1970), p. 88.

²⁹⁶ Donald Judd, "Specific Objects," in *Donald Judd: Complete Writings 1959-1975:*Gallery Reviews, Book Reviews, Articles, Letters to the Editor, Reports, Statements,
Complaints (Nova Scotia: The Press of the Nova Scotia College of Art and Design,
1975), p. 181-189, originally published in Arts Yearbook 8, 1965; Morris, "Notes on
Sculpture, Part 1" and "Notes on Sculpture, Part 2," in Continuous Project Altered Daily
(Cambridge, Massachusetts: MIT Press, 1995) p. 8, 15.

²⁹⁷ Obviously this does not make the contemplation of the literalist object circular: analyzing the experience in question – bringing it to another level of abstraction, in the present terms – prompted Daniel Buren, Hans Haacke, Michael Asher and others to examine not only the spaces but the institutions of art. See for example Hal Foster, *The Return of the Real* (Cambridge, Massachusetts: MIT Press, 1996), p. 59-60 and Miwon

Serra's sculpture, I have been suggesting, is more like Bateson's playful monkeys – and this is possible largely because while (at least after departing Italy) Serra began at more or less the same point as Judd and Morris, attempting to make works that were materially self-evident, he did not follow his older peers in the conviction that the absence of internal division was part and parcel of that ideal. On the contrary, he privileged contradiction and tended to make works that involved more than one type of experience at a time: in Scatter Piece (1967) [Fig. 1.22], for example, the viewer engages on one level with the process of casting, yet another with the very different temporality of scattering, and yet another with the act of movement and measurement against the cord that cuts across the mass of rubber. In what might be called the classic process works – sTearing Lead from 1:00 to 1:47 and Casting (both 1968) [Figs. 1.1-2] – the physical quality of the work is blunt, almost banal – figuratively leaden as well as literally lead – while the awareness of process embeds a sense of time and change into this resistant materiality. The Prop pieces, meanwhile, engage viewer's sense of immediacy (the sculptures are there, actively working to stand up) but also projection and anticipation (perhaps they will fall). As Serra writes, the result of these combined states makes this materially self-evident work point outward to other orders of experience.

The perception of the work in its state of suspended animation, arrested motion, does not give one calculable truths like geometry, but a sense of presence, an isolated time. The apparent potential for disorder, for movement, endows the structure with a quality outside of its physical or relational definition.²⁹⁸

The Props may be considerably more dramatic than Serra's other works, but there is an important commonality here: a sense of contradiction between orders of experience that the viewer must process. This amounts to a refusal to clarify the art experience as fully as do Judd and Morris; the orders of experience to which the work's material presence belongs do not stop at the walls of the gallery or on the pages of the magazine (though neither are directed as specifically or as critically as they are in works of institutional critique by artists such as Hans Haacke and Michael Asher or, later, Louise Lawler and Sherrie Levine). At least potentially, in Whitehead's words, the conflicts embedded within these process works mean that they might engage the "infinitude of relations in the historic world." They can signify without referring, without relying on resemblance or substitution.

Of course to propose that a sculpture has potentially infinite meaning would court the very real danger of saying nothing at all. Better to say that in the works that relate most directly to *Verb List* Serra was thinking about sculpture and process in a way that made room for meaning in the manner described above, gesturing at the possibility of signification. By the later sixties and early seventies, however, some of Serra's film, video, photographic works, and other projects began to show characteristic obsessions

Kwon, *One Place after Another Site-Specific Art and Locational Identity* (Cambridge, Massachusetts: MIT Press, 2002), p. 11-31.

²⁹⁸ Serra, "Play it again, Sam," p. 8.

²⁹⁹ Whitehead, *Modes of Thought*, p. 89.

that we might see as limiting the "infinitude of relations in the historic world" so that Serra was addressing something we might in retrospect simply call "history." Surprise Attacks, Prisoner's Dilemmas, the flow of "in-formation": here process became instrumentalized and even weaponized, and did so at a moment when the predominance of intangible and invisible instruments and weapons was fairly new. As I was careful to point out in Chapter Two relationship of the Props to these processes was not direct, but Serra does leave space for us to understand them as distinct but related orders of experience. The relationship between sculpture and the camera that I explored in Chapter Three brings us closer to Foster's "medium-differential" use of the theory of logical types, since my discussion addresses the relationship between one medium (sculpture) and a host of related media (film, video, and photography). That relationship, though, is only partially "differential," as Serra continually builds the faulty lessons of the camera into sculptural experience, naming the camera's tendency to "see wrongly" but nonetheless building that tendency into the work.

When I interviewed Richard Serra in July of 2009, I asked him about *Lead Shot*, the 1968 proposal (discussed in Chapter Two) to drop molten lead from an airplane in order to form "a precise spherical mass: a continuous solid, a ball, a bomb." The project was never realized, and his first response to my questions about it was to explain why it had not (of course) been practical, and how it had led him to make the cast lead sculptures. I was interested to learn that this had been the order of events – ultimately that information proved more important than the answer to the question I had already had in mind: "And you call it a bomb?" Perhaps in no other work is Serra so directly referential – no surprise, then, that he framed his response as an objection.

Look. Vietnam is going on. If you were going to make lead bombs it sounded a little weird. Everyone was involved in the antiwar movement. If you started telling people you were interested in making bombs you were going to have your phone tapped in two seconds.

I asked if, then, he thought the mention of the bomb was irrelevant to the work. "No," he said,

I think the statement is indicative of its time. And I think as an idea indicative of its time, it's relevant. I didn't have the wherewithal to make it at the time, but it got me into splashing lead. And it got me into thinking about lead spheres, and it got me thinking about spheres. And I still think about spheres. I mean, I didn't get into making spheres until about thirty years later. I mean the fact that you can form a solid sphere by dropping a liquid, that's fascinating.

It wasn't that the bomb was irrelevant. It was, rather, that the proposal was so much a part of its moment that the bomb's relevance is, for someone who lived through that moment, so automatic as to be nearly invisible. *Look. Vietnam was going on.* The war was pervasive, it was the unconscious or barely conscious ground of making.

While it is impossible to draw absolute conclusions on this point, it is worth pointing out that Serra's self-described decade of experimentation – the time when his "field of play" was most open and actively played in – ended within a year or so, one direction or the other, of the fall of Saigon in April of 1975 and the end of the United States' war in Vietnam. It ended, in other words, around the time when it may have begun to seem less urgent to make artworks that would have some kind of (perhaps oddly) physical but not-easily-definable relationship with systems – be they non-zero-sum war games or cybernetically grounded theories of body language. Clearly, the tendency to transform everything into system and process did not end in the mid-1970s – to take just one example, the Defense Advanced Research Project Agency (DARPA), the precursor to the internet, was founded in 1972 – but the always-controversial sense that it might be imperative for artists to take these issues on had waned. 300 As I argued in Chapter Two Serra was rather resistant to the romantic strain that ran though some of this "imperative"; at the same time, he made comments that indicate a strong intellectual preoccupation with parts of it, and he used film, video, and photography to engage with systems frequently between 1966 and 1975-6 to suggest that these kinds of systems provide the limits to "infinitude of relations in the historic world" that are relevant for the works he was making at the time.³⁰¹

In any case, *after* that period his engagement with systems became much more directed at the means by which he produced his own work. In his first forged steel work

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Jane Livingston having issued this 1971 statement for the *Art & Technology* catalogue four or five years later: "An increasingly prevalent concern of many artists and scientists is to overcome the traditional and presumably obsolete separation of academic and professional disciplines. Systems analysis, with its assumption that only by starting from an interdisciplinary or total-context approach can social institutions be made to operate productively, provides procedural methods and models for such reform. In principle, the espousing of a *systems esthetic*...represents a less rhetorical theory than any (including the Constructivist, Bauhaus and 'socialized art' manifestations) which has preceded it. It implies the grasp of a powerfully efficacious means for revolutionizing art within the total cultural setting." Jane Livingston, "Thoughts on Art and Technology," in Maurice Tuchman, *A Report on the Art and Technology Program of the Los Angeles County Museum of Art*, 1967-1971 (Los Angeles: Los Angeles County Museum of Art, 1971), p. 44.

³⁰¹ To repeat the key passage: "I made an earlier videotape, *Surprise Attack*, which used a game theory that went, 'If you hear a burglar downstairs, should you pick up a gun or not pick up a gun?' It was taken from Schilling's [*sic*] book *The Strategy of Conflict*. About a year and a half ago [cybernetic economist] Robert Bell and I had talked about the possibility of making a film on a train going to Las Vegas which would deal with game theory. And then when I saw him in New York recently he'd just finished a paper on deterrents [*sic*] that mentioned this specific prisoners' dilemma. I read the paper, and in my trying to dope out the pros and cons of it, what I would do if I were in that situation, I found that my own thinking fascinated me, so much so that I thought it must have an awful lot to do with the way I think about anything...I don't know." Liza Bear, "Prisoner's Dilemma," in *Richard Serra: Collected Writings and Interviews*, p. 24.

Berlin Block (For Charlie Chaplin) (1977) [Fig. 4.1] the processes of forging clearly became important for him, but since many of the features of forging that he found salient were not apparent to the viewer, this was more nearly a modernist engagement with technique than it was an activation of process. ³⁰² He also began to focus increasingly on systems of internal measurement that were – like the one on offer in Shift (1970-72) – entirely relative to the viewing subject rather than to a numerical or abstract system, but that did not, unlike that sculpture with its deconstruction of perspective, require that measurement to be checked against one's prior notions of visual organization. In the face of works from Different and Different Again (1973) (Fig. 4.2) to Weight and Measure (1992) (Fig. 4.3) and, most programmatically, Walking is Measuring (1999-2000), (Fig. 4.4) it is not that all questions drop away – how does visual recession take place? What should a horizon be like, and where should it be? How do these things organize the whole, or fail to? – it is, rather, that the sculptures frame these questions entirely in their own terms, rather than holding these terms in tension with convention. The result may ultimately be a more open spatial experience – conceptually, however, there is a decided shift. The early work had, in naming certain ideas and theoretical forms as a kind of limit, indirectly embodied those concepts (with all of the strangeness that "indirect embodiment" might entail). As time went on, Serra's forms responded largely to themselves.

Of course, it was also during these years that Serra began consciously to develop a site-specific sculptural practice. Landscape elevations such as *Shift* had been topographically embedded; making sculpture for urban environments required a more theorized relationship between art and site, public and private, form and content. Serra's first realized site-specific sculpture was *Terminal* (1977); though shown first at Documenta 6 in Kassel it was always intended for a triangle in Bochüm, a point of transit for many of the workers who fabricated Serra's steel sculpture. "It's right near the train depot," Serra told Annette Michelson. "The streetcars miss it by a foot and a half. I was

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In not relying on an industrial module (boying a product from a warehouse, for example which in a sense is very alienating, distancing from the material) I was able to work on a level of immediacy and direct the procedure of production. In effect, I was making and forming material from its molecular structure on up." Richard Serra (in conversation with Gerard Hovagymyan), "Rigging," in *Richard Serra:* Writings/Interviews, p. 99-100.

A year later Serra released a film of the sculpture's production – *Steelmill* (*Stahlwerk*) (1978) – but this focused primarily on the extremely problematic labor conditions found in the steelmill. It did not set up much of a dialogue between the processes technical aspects of forging that Serra found compelling.

³⁰² In 1980, Serra described his work with an eighty-foot-high forge at Thyssen in the Ruhr Valley. "When I first went there, I had asked if they could reduce the edge of the cube down to less than ten millimeters and they said they could probably reduce it to fifteen millimeters, which would have been a rounded edge. I wanted it to be as tight as possible. The further they got into the problem, the more successful they were, and they got it down to five millimeters on the edge. They had me in a little box, dropped down from a crane, in a helmet and goggles and asbestos suit, and they swung me into the forge and let me watch and caliper the edge.

very happy with the installation."³⁰³ A few years later, during the planning and development of *Tilted Arc* (1981) Serra expressed similar concerns to Douglas Crimp about that sculpture's location. "There is no neutral site. Every context has its frame and its ideological overtones. It's a matter of degree. There is one condition I want, which is density of traffic flow."³⁰⁴ Serra's understanding of the sculpture's relationship to the site has too often been reduced to physical permanence – "to remove the work is to destroy the work"³⁰⁵ – but even without that reduction it is fairly clear that Serra's site-specific works signify in a much more inward-looking way than his earlier work had done. The relationships between the sculptures and the spaces outside them are consistently matters of vectors, forces, and flows in the immediate surroundings – not processes external but pointed to by the sculptures, as was often the case in the work Serra made during his first ten years in New York.³⁰⁶

³⁰³ Annette Michelson, "The Films of Richard Serra: An Interview," in Foster and Hughes, *Richard Serra* (October Files), p. 44.

³⁰⁴ Douglas Crimp, "Richard Serra's Urban Sculpture," in *Writings/Interviews*, p. 127-28.

Tilted Arc: Documents (Cambridge, Massachusetts: MIT Press, 1991.

To be sure, Serra can make the production of sculpture in relation to such forces sound pretty exciting. About *St. John's Rotaty Arc* (1980), he said "I have always thought of the Rotary as being a turntable, a cartwheel, a bottleneck-extension, a continuation and completion of the New Jersey Turnpike, a highway roundabout at the exit o the Holland Tunnel and the entrance to Manhattan, a place where cars continually turn and cross lanes in apprehension of changing directions as they enter New York coming from new Jersey, a space polluted by exhaust fumes, a scene of incessant change, a hub, a place of rush hour glut, a place of disorientation and permanent rotation where, at various times of the day, the density of traffic screens the inner center of the Rotary, enforcing the distinction between the inside and the outside of the space so that the space seems to open and close with the traffic flow...The inclusion of the *Arc* in the rotary gives a sculptural definition to the place." Serra, "St. John's Rotary Arc," in *Writings/Interviews*, p. 119. Originally published in *Artforum*, September 1980.

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Appendix: Images

Chapter One

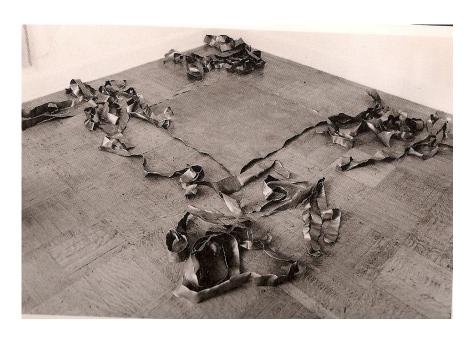


Figure 1.1 *Tearing Lead from 1:00 to 1:47*, 1968

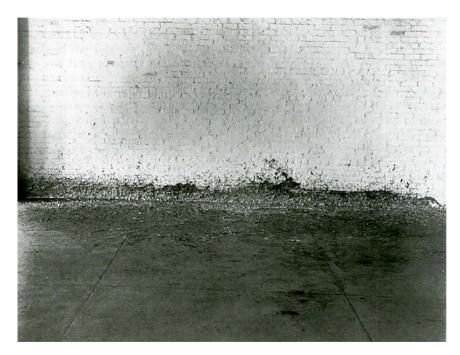


Figure 1.2 Splashing, 1968



Figure 1.3 Verb List, 1967-68



Figure 1.4 Casting, 1969



Figure 1.5 Slow Roll (For Philip Glass), 1968



Figure 1.6 9 at Castelli installation shot, Castelli Gallery Warehouse, New York City, 1968, showing Scatter Piece (1967), Splashing (1968), and Prop (1968)



Richard Serra's lead-and-pipe piece, at Castelli's 108th Street warehouse. May very well become a landmark event

Figure 1.7 Leider, "The Properties of Materials," (1968) (detail)

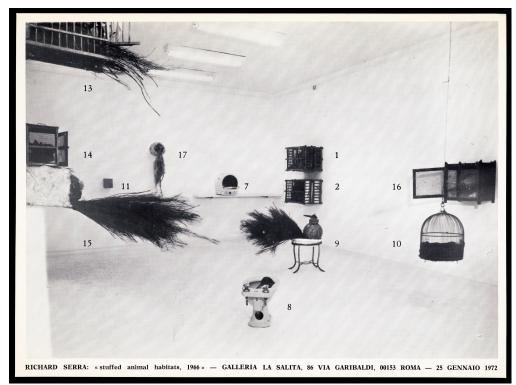


Figure 1.8 *Animal Habitats Live and Stuffed* installation shot, Galleria La Salita, Rome, 1966



Figure 1.9 *Squatter I*, 1966

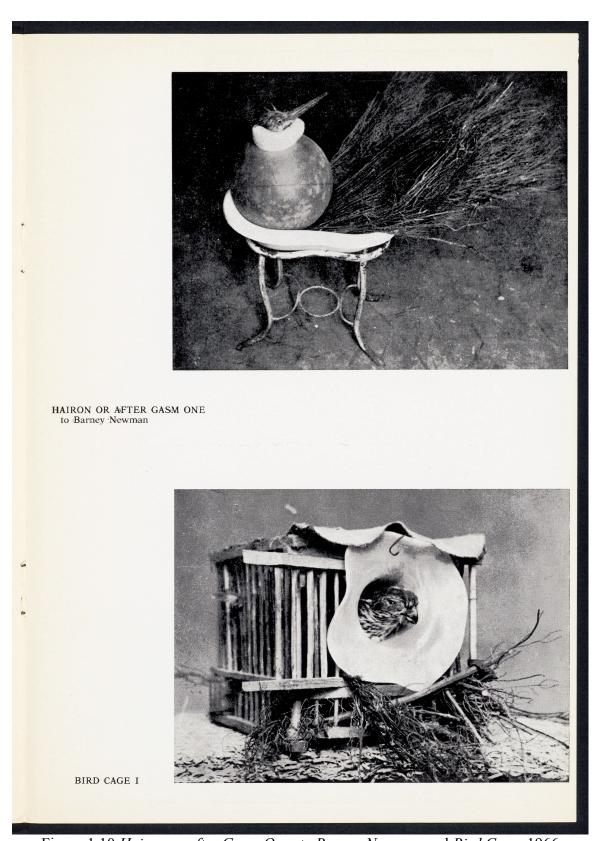


Figure 1.10 Hairon or after Gasm One: to Barney Newman and Bird Cage, 1966



Figure 1.11 Robert Rauschenberg, Monogram, 1955-59



Figure 1.12 Nancy Graves, Camel, 1968

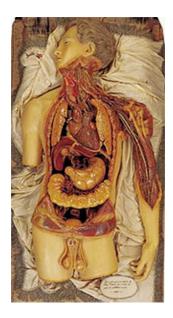


Figure 1.13 Clemente Susini, *écorché*, early-19th century



Figure 1.14 Robert Rauschenberg, *Odalisk*, 1958



Figure 1.15 The Slant Step

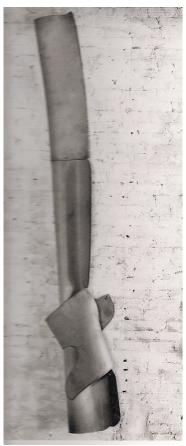


Figure 1.16 Slant Step Folded, 1967



Figure 1.17 Bruce Nauman, *Mold for a Modernized Slant Step*, 1966
131

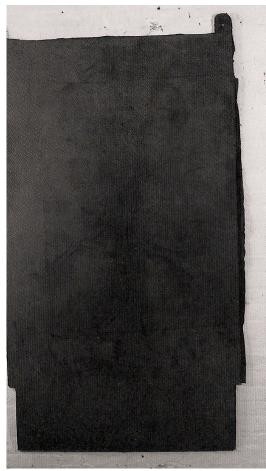


Figure 1.18 *Remnant*, 1966-67



Figure 1.19 *Doors*, 1966-67

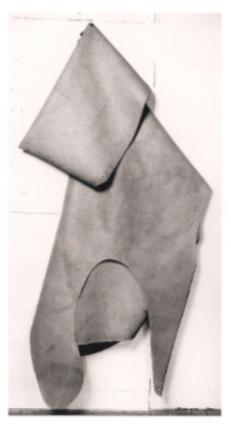


Figure 1.20 Template, 1967



1.21 Belts, 1966-67

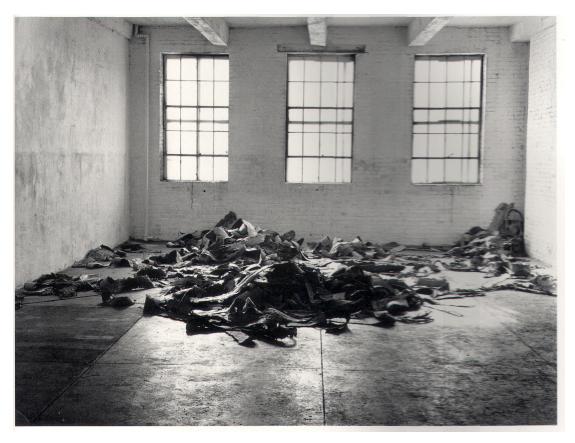




Figure 1.22 Scatter Piece, 1967 (shown in 9 at Castelli, 1968, and current installation at Dia:Beacon, Beacon, New York)



Figure 1.23 *Chunk*, 1966



Figure 1.24 Robert Morris, *Untitled (Threadwaste)*, 1968



Figure 1.25 Robert Smithson, A Nonsite (Franklin, New Jersey), 1968

Chapter 2 Images

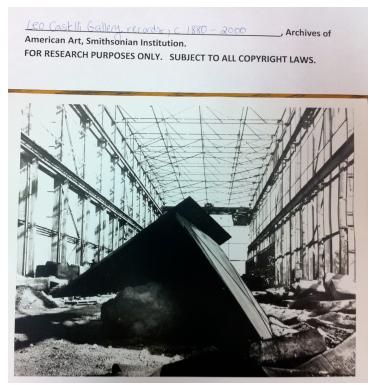


Fig. 2.1 Untitled (Skullcracker Series), 1969



Fig. 2.2. Counterbalance (Skullcracker Series), 1969



Fig. 2.3 Stacked Steel Slabs (Skullcracker series), 1969



Fig. 2.4 *Prop*, 1968



Fig. 2.5 Robert Smithson, Partially Buried Woodshed, 1970



Fig. 2.6 One-Ton Prop (House of Cards), 1969

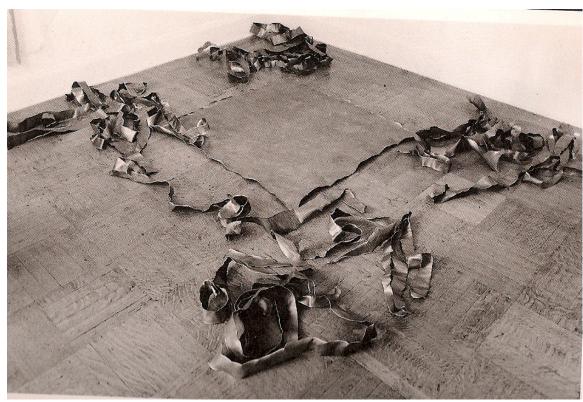


Fig. 2.7 Tearing Lead from 1:00 to 1:47, 1968

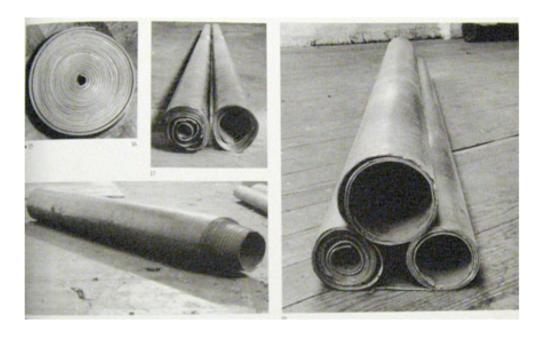


Fig. 2.8 Counterclockwise from top left: Untitled, 1968; *Double Roll*, 1968; *Slow Roll:* For Philip Glass, 1968; Bullet, 1968



Fig. 2.9 *Theodoron: Nine Young Artists*, installation shot, Solomon R. Guggenheim Museum, New York, 1969



Fig. 2.10 Shovel Plate Prop, 1969





Fig. 2.11 Sign Board Prop, 1969

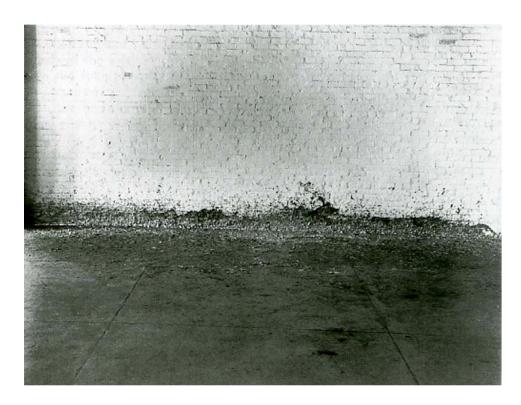


Fig. 2.12 Splashing, 1968



Fig. 2.13 Close Pin Prop, 1969



Fig. 2.14 Inverted House of Cards (Skullcracker series), 1969



Fig. 2.15 5:30, 1969



Fig. 2.16 *V+5 (To Michael Heizer)*, 1969



Fig. 2.17 *1-1-1-1* and *2-2-1* (*To Dickie and Tina*), both1969

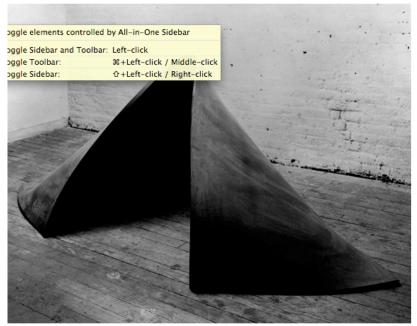


Fig. 2.18 *To Lift*, 1967

LEAD SHOT

A QUANTITY OF LEAD IS HEATED TO A MOLTEN TEMPERATURE RANGE 340 TO 925 °C. IN AN AIRPLANE AT THE HEIGHT OF 15,000 TO 30,000 FEET. ATMOSPHERIC CONDITIONS BEING STABLE THE MOLTEN LEAD IS THEN DROPPED TOWARD A PREDETERMINED SITE ON THE EARTH'S SURFACE. THE LIQUID LEAD VOLUME IN DESCENT FORMS A PRECISE SPHERICAL MASS: A CONTINUOUS SOLID, A BALL, A BOMB. THE QUANTITY OF LEAD NECESSARY TO FORM A SPECIFIC SIZE RATIO OF MASS TO VOLUME IN THE FALLING PROCESS CAN BE CALCULATED. NOTE: FEYNMAN, PHYSICS; SHOT TOWER BALTIMORE, MARYLAND. IT WILL BE NECESSARY TO DROP THE LIQUID OVER SOFT EARTH SITES : MUD, LAKES, OCEANS, ETC. - TO PREVENT SHATTERING.

Fig. 2.19 Lead Shot, 1968

5. 2.13 Eeda S.161,

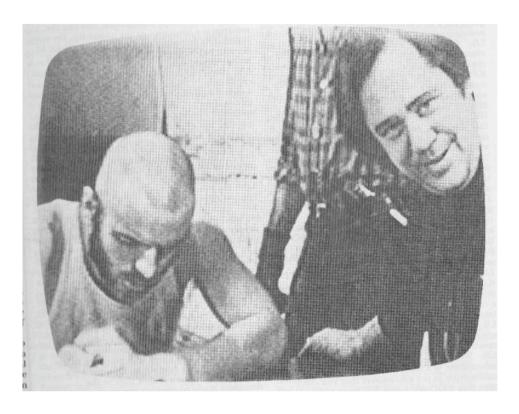


Fig. 2.20 Prisoner's Dilemma (video still), 1974

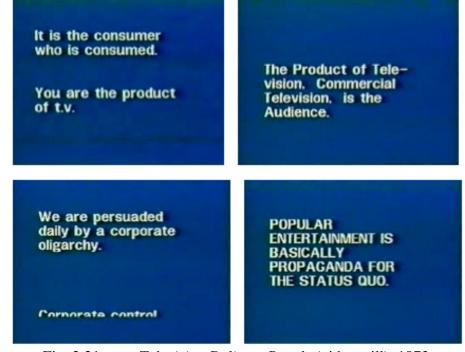


Fig. 2.21 Television Delivers People (video still), 1973

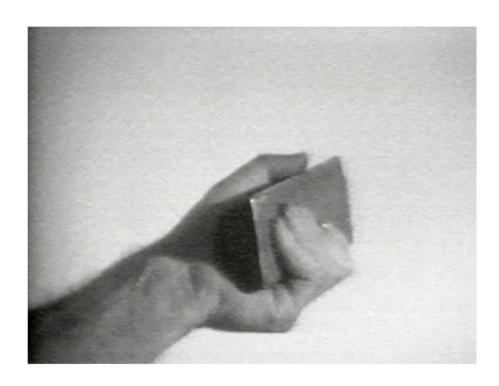


Fig. 2.22 Surprise Attack (video still), 1973

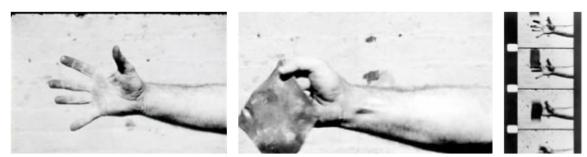
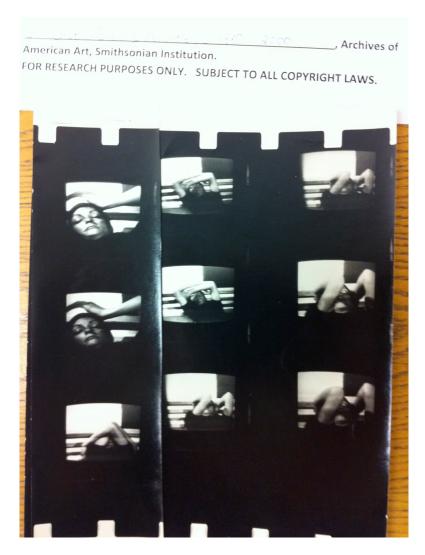


Fig. 2.23 Hand Catching Lead (film still), 1968

Chapter 3



Fig. 3.1 Joan Jonas, Vertical Roll (screen shot), 1972



3.2 Anxious Automation (screen shot), 1970



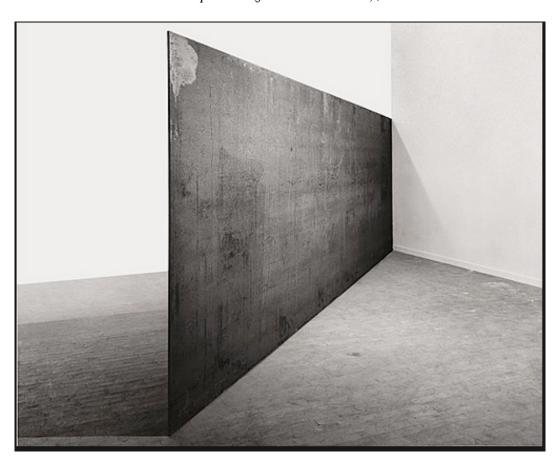
3.3 Pulitzer Piece: Stepped Elevation, 1970-71



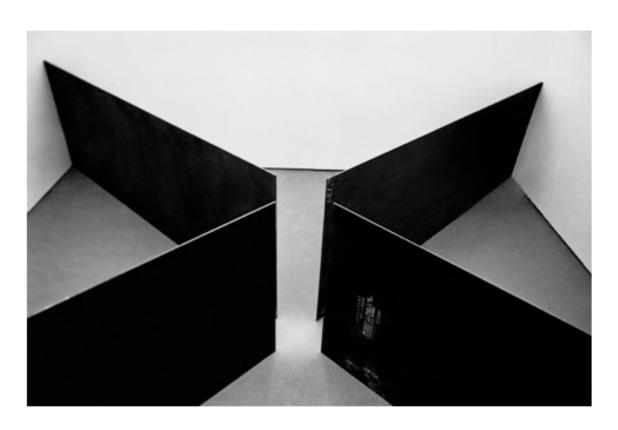
3.4 *Shift*, 1970-72 150



3.5 Spin Out (for Bob Smithson), 1973



3.6 Strike (To Roberta and Rudy), 1969



3.7 *Circuit*, 1972



Fig. 3.8 Heir, 1972



3.9 Robert Smithson, *Plunge*, 1966



3.10 Two Equal Steps, 1978



3.11 Open Field Vertical/Horizontal Elevations (For Breughel and Martin Schwander), 1978-80



3.12 *Sea Level*, 1988-96



3.13 Serra in Jasper Johns's studio, 1969-70 154



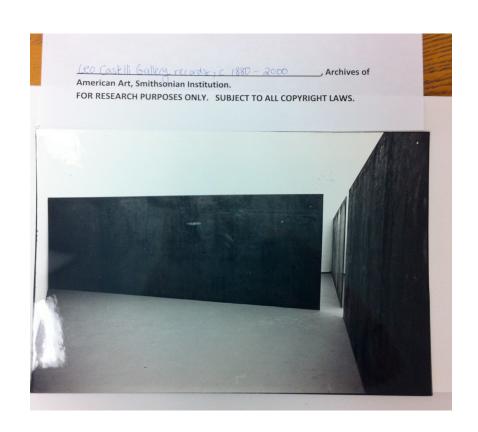
3.14 *Casting*, 1969

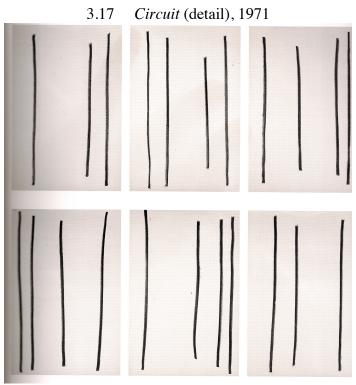


3.15 Splash Piece: Casting, 1969-70



3.16 *Circuit* (detail), 1971 155





3.18 Drawings after Circuit (6 out of 24), 1972



3.19 *Delineator*, 1974



3.20-23 *Frame* (film stills), 1969



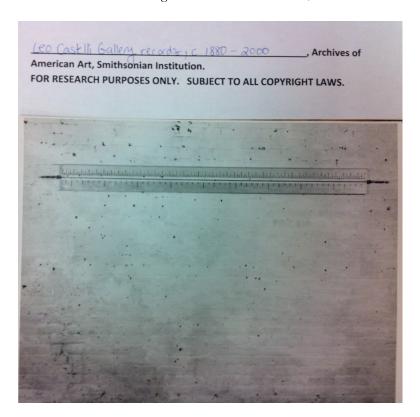
3.24 Shooting a Square thru a Trapezoid, Camera Angle Measured, 1971 (part 1), all images here by Shunk-Kender



3.24 Shooting a Square thru a Trapezoid, Camera Angle Measured, 1971 (part 2), the first and fourth row of images here are by Shunk-Kender, the others were photographed by Serra through the trapezoid



3.25 Cutting: Base Plate Measure, 1969



3.26 Two Rulers Measuring Each Other, 1967



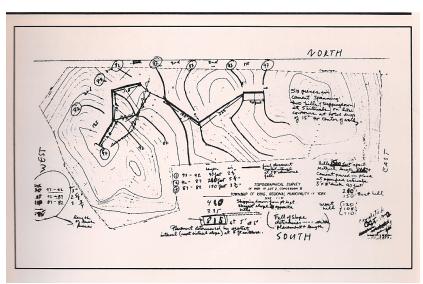
3.27 Strike, 1969-71 and Shooting a Square thru a Trapezoid, Camera Angle Measured, 1971



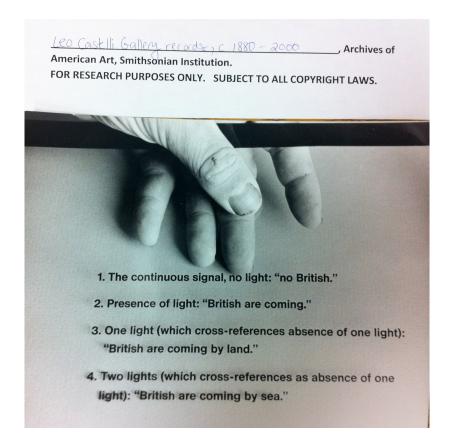
3.28 *Shift*, 1970-72 (details)



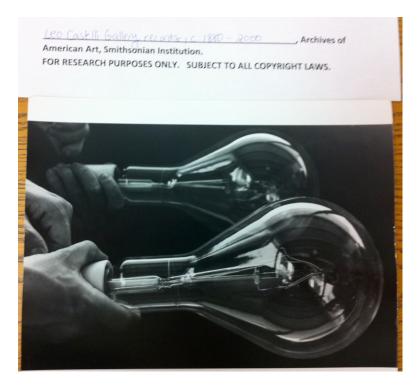
3.29 Videotape of landscape survey for *Shift*, 1970



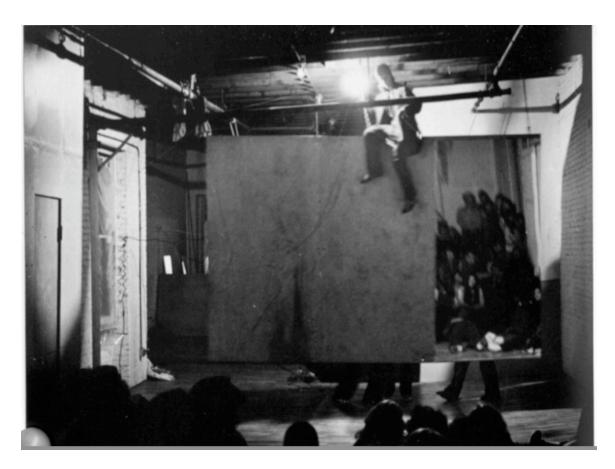
3.30 Elevational plan for *Shift*, 1970



3.31 Joan Jonas and Richard Serra, Paul Revere (film still), 1971



3.32 Joan Jonas and Richard Serra, *Paul Revere*(film still), 1971 164



3.33 Joan Jonas, Choreomania, 1971



3.34 Joan Jonas, Mirror Piece II, 1970





ach Piece (1970) Jones Beach, New York



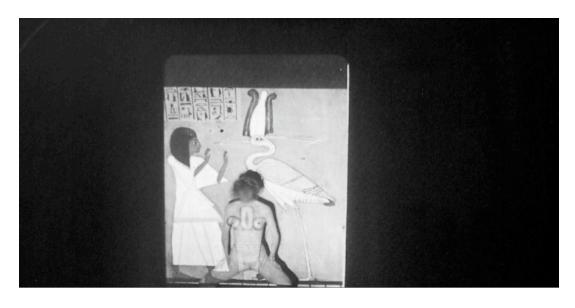
3.35-36 Joan Jonas, Jones Beach Piece, 1970



3.37 Joan Jonas, Nova Scotia Beach Dance, 1971



3.38 Joan Jonas, Veil (screen shot), 1971



3.39 Joan Jonas, Choreomania, 1971

Conclusion



Fig. 4.1 Berlin Block (For Charlie Chaplin), 1977

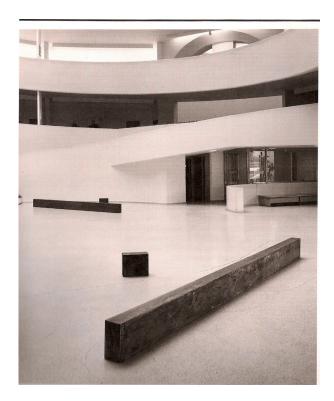


Fig. 4.2 Different and Different Again, 1973



Fig. 4.3 Weight and Measure, 1992

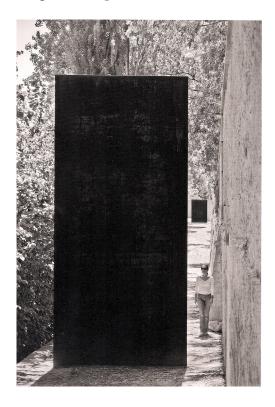


Fig. 4.4 Walking is Measuring, 1999-2000