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# HEIGHTENED PERCEPTION: DONALD JUDD, JOHN CHAMBERLAIN, ROBERT IRWIN, AND LARRY BELL, 1960–1975

| Committee:                |  |
|---------------------------|--|
| Richard Shiff, Supervisor |  |
| John Clarke               |  |
| Linda Henderson           |  |
| David Raskin              |  |
| Ann Revnolds              |  |

## HEIGHTENED PERCEPTION: DONALD JUDD, JOHN CHAMBERLAIN, ROBERT IRWIN, AND LARRY BELL, 1960–1975

by

### Adrian Michael Kohn, A.B.; M.A.

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Adrian Michael Kohn, Ph.D.

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Supervisor: Richard Shiff

This dissertation explains how and why some American artists

investigated visual phenomena and heightened perception during the 1960s and

1970s. As an analytical account grounded in the perceptual experience of

artworks and in archival research of the claims artists made for their creations,

this study is centered around the themes of re-sensitizing one's body and

perceptual faculties, the process of empirical discovery, and the ultimate inability

of language to satisfactorily describe sensory phenomena.

In Chapter 1, I establish a brief intellectual history of research concerning

the sensory faculties from fields in the humanities, including psychology,

philosophy, and art history. In Chapter 2, I analyze Judd's art-critical concept of

optical phenomena and consider the art about which he wrote, including his own,

on the basis of this tentative classification. In Chapter 3, I evaluate John

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Chamberlain's lacquer paintings in terms of the visual phenomena generated by his innovative paint mixtures and application techniques, then consider his provisional separation of intuition and intellect. In Chapter 4, I examine Robert Irwin's efforts to refine his visual attentiveness and, in the course of doing so, I also test the accompanying artworks he made that demand such unusually acute observation. In Chapter 5, I argue that distinguishing physical, pictorial, and reflected visual phenomena in Larry Bell's pieces proves to be an exceptional challenge, a problem compounded by the inefficacy of trying to communicate visual discoveries using language. In the Conclusion, I demonstrate that by restoring the role of heightened perception and sensory discovery to the history of art of the 1960s and 1970s, this dissertation helps to preserve the complexity and variety of works made during that time.

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- Figure 5.16; Larry Bell; *Larry Bell's House, Part II* in progress; 1962–63; wood, mirror, epoxy paint; 25 x 25 x 25 in.
- Figure 5.17; Larry Bell; *Bette and the Giant Jewfish*; 1963; vacuum-coated glass, chromium-plated brass;  $16^{1}/_{2} \times 16^{1}/_{2} \times 16^{1}/_{2}$  in.
- Figure 5.18; Larry Bell; untitled; 1962; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass;  $12^{1}/_{4}$  x  $12^{1}/_{4}$  x  $12^{1}/_{4}$  in.
- Figure 5.19; Larry Bell; untitled; 1964; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass;  $10^{1}/_{4} \times 10^{1}/_{4} \times 10^{1}/_{4}$  in.
- Figure 5.20; Larry Bell; untitled; 1964; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 14 x 14 x 14 in.
- Figure 5.21; Larry Bell; untitled; 1965; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 10 x 10 x 10 in.
- Figure 5.22; Larry Bell; untitled; 1964; vacuum-coated glass, chromium-plated brass; 14 x 14 x 14 in.
- Figure 5.23; Larry Bell; untitled; 1966; vacuum-coated glass, chromium-plated brass;  $12^{1}/_{4}$  x  $12^{1}/_{4}$  x  $12^{1}/_{4}$  in.
- Figure 5.24; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass; 20 x 20 x 20 in.
- Figure 5.25; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass; 20 x 20 x 20 in.
- Figure 5.26; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass; 20 x 20 x 20 in.

Figure 5.27; Larry Bell; *The Iceberg and Its Shadow*; 1974; 56 panels of  $^3/_8$  in. plate glass vacuum-coated with inconel and silicon monoxide; each panel between 57 and 100 in. tall x 60 in. wide; overall dimensions variable.

#### INTRODUCTION

This dissertation focuses on the remarkable contributions to our understanding of visual phenomena and perception, made by a group of loosely connected artists working from the 1960s through the present—Larry Bell, John Chamberlain, Robert Irwin, Donald Judd, as well as others associated with them. These artists experimented with new materials and new fabrication techniques, and even seem to have produced new kinds of visual stimuli. I aim to preserve the differences in approach and in results that characterize these artists as individuals, and yet there are common points of great art-historical significance. These shared goals include the artists' desire to experience unprecedented sensory phenomena and to extend human vision beyond its traditionally understood limits.

In order to attain more accurate knowledge of these artists' goals and works, it is necessary to consider their creations outside of dominant art-critical and art-historical frameworks. The topics of hypersensitive perception and unusual visual phenomena seem to receive scant attention in most of the textbooks surveying postwar American art and in a great deal of the art criticism from the time. Perceptual investigations beyond those of so-called Op or Optical

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<sup>&</sup>lt;sup>1</sup> Some exceptions include the writings of Jan Butterfield, Jane Livingston, and Melinda Wortz. For example, see Jan Butterfield, *The Art of Light and Space* (New York: Abbeville Press, 1993); Jane Livingston, *Robert Irwin – Doug Wheeler: 1969* (Fort Worth: Fort Worth Art Center

artists and beyond those of artists who exhibited in shows such as the Museum of Modern Art's 1965 "The Responsive Eye" may remain altogether unremarked or else treated as part of a vague trend during the 1960s and 1970s.<sup>2</sup>

Contrary to these positions, I argue that historians cannot claim to offer an accurate account of art from this time without careful analysis of the perceptual inquiry involved. As such, I examine works at a remove from their art-historical context (as currently conceived) in order to evaluate my own, the artists', and others' experiences in front of the works themselves. This firsthand sensory engagement and perceptual discovery is fundamental to one's encounter with art, but frequently it is also the very information sacrificed when one relies too heavily on art-historical generalizations.

Over the course of this project, I hope to redress biases, inaccuracies, and omissions in current accounts by restoring artists' varying perceptual investigations and the visual experience of their works to the analysis of American art from the 1960s and 1970s. This dissertation makes four contributions to existing scholarship. First, it establishes a brief intellectual history of research concerning the sensory faculties from fields in the humanities,

Museum, 1969); and Melinda Wortz, "Surrendering to Presence: Robert Irwin's Esthetic Integration," *Artforum* 20 (November 1981): 63–69.

<sup>&</sup>lt;sup>2</sup> See William C. Seitz, "Acknowledgements," *The Responsive Eye* (New York: The Museum of Modern Art, 1965), 3; and Donald Judd, "Julian Stanczak," *Arts Magazine* 39, no. 1 (October 1964): 68.

including psychology, philosophy, and art history. Second, it aims to preserve the complexity and variety of mid-twentieth-century American art by establishing similarities, differences, and distinctions of degree among the works and practices of the four artists analyzed in detail, as well as those of others making advanced art in this period. Third, and most significantly, I use representative artworks as case studies with which to assess the role of perceptual inquiry in the art of this time (specifically, by asking and answering how and when some artists began investigating visual phenomena and perception, how their art actually looked and why so, and what sensory and cognitive effects works had on viewers). And last, in its broadest ramifications, this dissertation provides a methodological model of analysis based first and foremost in the visual, spatial, physiological, and otherwise experiential effects of artworks. In structuring my account in this way, the intention is not to critique or attack alternative methodologies, but rather to struggle with the sensory phenomena that often go unremarked (and perhaps also unnoticed) in other kinds of historical examination.

This topic has particular relevance today. Since 2000, curators have organized retrospective exhibitions of art of the 1960s and 1970s at museums including the Centre Pompidou, the Hirshhorn Museum and Sculpture Garden, the Guggenheim Museum, the Los Angeles County Museum of Art, the Museum of

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Contemporary Art Los Angeles, the Norton Simon Museum, the Tate Modern, and the Whitney Museum of American Art. From these historical projects, one catches a glimpse of the bewildering breadth and equally diverse legacy of this moment in the avant-garde, both in the United States and abroad. Given the variety of objects in the earliest exhibitions as well—such as "Toward a New Abstraction" (1963), "Primary Structures" (1966), and "American Sculpture of the Sixties" (1967)—historians who extrapolate characteristic appearances and principles from a handful of artists and works cannot help but offer misleading generalizations. A more nuanced history of art of the 1960s and 1970s is necessary—one that addresses specific differences within the general similarities of one's sensory experience. This project begins to fill that gap in the scholarship by assessing the role of visual phenomena and perceptual inquiry in art made during this time.

In Chapter 1, "Twentieth-Century Theories of Perception and Perceptual Phenomena," I examine some major perceptual theories of the twentieth-century and trace how their ideas branched off from one another. This research establishes some of the intellectual foundations for artists' perceptual investigations in the 1960s, as well as modes of analysis for my own retrospective account. What emerges from the comparison of theories is a topology of models differing by degree rather than a schema of clearly contradictory systems. Most importantly, a

prominent similarity becomes clear amid the perceptual experiments of some artists working in the 1960s and 1970s. A few painters and sculptors made works that bring about new visual phenomena and that demand a specialized mode of vision, a way of seeing that trades the utility and efficiency of everyday sight for a hypersensitive focus upon what is unusual and, most of the time, barely discernible.

In Chapter 2, "Donald Judd on Optical Phenomena," I organize Judd's scattered references on phenomena and examine the art about which he wrote (including his own) on the basis of this tentative classification. Reconstructing the category of phenomenal art complicates accounts of how this major artist and critic understood work of the 1960s and after, which, above all, helps restore to postwar art history some of the variety and intricacy of the artworks themselves. Observing the visual effects these works bring about constitutes discovery of new knowledge about the objects and their diverse appearances. An unusually intense and seemingly impractical mode of observation leads to such unaccustomed sensory experience.

In Chapter 3, "A Look at Phenomena in John Chamberlain's Lacquer Paintings," I offer the first extended analysis of Chamberlain's lacquer-on-board paintings, of his innovative paint mixtures and application techniques in these pieces, and of the visual phenomena generated by both his lacquer paintings and

the more familiar metal sculptures. Also, I examine Chamberlain's provisional separation of the complex and intertwined concepts of intuitive thinking and intellectual thinking, both in terms of his fabrication process and also with regard to critics' reception of his works. Chamberlain's pieces demonstrate that when viewing art, a willingness just to perceive means learning, again and again, what one did not know before, even though things may look either utterly banal or impossibly chaotic at first.

In Chapter 4, "To Perceive Like Robert Irwin," I examine this artist's development of a hypersensitive mode of perception and the works he made that demand and reward such unusually acute observation. In order to register the extraordinary phenomena his pieces bring about and make apparent, one must pay closer attention to surrounding stimuli and for longer than usual. Everyday seeing, on the contrary, with its economy and efficiency, will inevitably miss such subtle sensations. In his later installations, Irwin increasingly extended his perceptual sensitivity beyond works of art to encompass experience of the world at large, thereby enabling discoveries about it as well. As I analyze his works and projects throughout this chapter, I repeatedly test the straightforward principle that Irwin came to realize about perceiving sensory phenomena in art and in the world: the more you look, the more you see.

In Chapter 5, "Volume and Vision in Larry Bell's Art," I argue that Bell's works assay our perceptual expertise in determining material reality from visible phenomena. Several seemingly contradictory appearances coexist and even coincide as a result of Bell's use of glass in his paintings and in his tridimensional constructions. It turns out to be surprisingly difficult to parse the physical, pictorial, and reflected visual information one finds when closely examining his work, a fact that complicates our casual confidence in the sensory faculties. Also, I examine Bell's intriguing distrust of language, especially his suspicion that its inevitable distortions offset any gain in communicability of perceptual experience. Phenomena themselves promise more profound discoveries than do words.

In the Conclusion, I assess the specific and general contributions of this dissertation to the analysis of art of the 1960s and 1970s. By researching and restoring the role of perceptual inquiry in some artworks made during this time, this project helps to preserve the variety of artistic activity at large in those years. Careful reading of artists' claims and close observation of their pieces clarify the sensory experiences and discoveries that often are obscured in analysis of postwar avant-garde art in America.

#### **CHAPTER 1**

#### **Twentieth-Century Theories of Perception and Perceptual Phenomena**

#### I. Introduction

To begin this project, I examine several major theories of human perception and perceptual phenomena that developed in the West during the twentieth century. I trace how these variable understandings branched off from one another and how, through their art and writing, artists and art historians participated in related investigations of vision. Also, I hope to clarify how artists and scholars interpreted theories of perception to suit their own purposes, in some ways akin to how they manipulated raw materials and reinterpreted previous thought in the name of creative practice and research, respectively. This migration of ideas demonstrates a kind of interpretative looseness: applications of concepts from philosophy, psychology, and other fields proved productive for art and art history, but, as one might expect, such uses were seldom constrained by the intricacies inherent in the original studies.

Accounts of perception from Gestalt psychology, empiricist philosophy, semiotics, phenomenology, and other analytical systems agree on a surprising

range of topics and, more often than not, differ only by degree. As such, examples of polar differences between theories are few. Areas of general commonality, on the other hand, become clear with some initial comparisons. For instance, most of the originating psychologists and philosophers, and some of the subsequent historians, neglected to differentiate—or, if there was no distinction, then making this premise explicit—between looking at the world and looking at a work of art. Artists proved more adept and insistent at preserving this separation. Art objects constitute a subclass of things in the world of course, and what applies to objects generally will also apply to artworks in a broad sense. That being said, artworks made by Judd, Chamberlain, Irwin, Bell, and others during the 1960s and 1970s introduced both new visual phenomena and new ways of seeing required to discern them. One has to study these pieces with an unfamiliar and specialized mode of vision, a kind of intense observation markedly different from the way we see when walking down a crowded street or when driving on the highway.

The reward for such intensive examination is the chance to see what had always remained below one's perceptual threshold, to make discoveries and to compile new knowledge with the same old senses. When written down, this concept resembles a truism: the harder you look, the more you see. Even so, my account revolves around this singular proposition, repeatedly testing and evaluating it against actual artworks in order to learn precisely what fresh visual

phenomena one can see with a hypersensitive mode of vision and what exactly one learns from such data.

#### II. Gestalt theory

In the early twentieth century, perceptual psychologists Kurt Koffka (*The Growth of the Mind: An Introduction to Child-Psychology*, 1924) and Wolfgang Köhler (*Gestalt Psychology*, 1929) founded Gestalt theory, which others such as Christian von Ehrenfels and Max Wertheimer advanced.<sup>3</sup> Before Gestalt theory, many perceptual psychologists considered the sensory world a homogenous flux of stimuli that one made sense of with cognitive skills, either innate or learned. Countering this idea, the Gestaltists tried to show that, in fact, external shapes (*Gestalten*) structure this flux. Percepts—those objects which we discern with the sensory faculties—have their own forms and require that we perceive them accordingly. Rather than a homogeneous visual (or aural, or tactile, and so on)

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<sup>&</sup>lt;sup>3</sup> See Christian von Ehrenfels, *Foundations of Gestalt Theory*, ed. Barry Smith (München: Philosophia Verlag, 1988); Christian von Ehrenfels, *Das Primzahlengesetz entwickelt und dargestellt auf Grund der Gestalttheorie* (Leipzig: Heisland, 1922); Kurt Koffka, *Principles of Gestalt Psychology* (New York: Harcourt, Brace, 1935); Kurt Koffka, *The Growth of the Mind: An Introduction to Child-Psychology*, trans. Robert Morris Ogden (New York: Harcourt, Brace & Company, Inc., 1924); Wolfgang Köhler, *The Task of Gestalt Psychology*, ed. Carroll C. Pratt (Princeton, N.J.: Princeton University Press, 1969); Wolfgang Köhler, *Gestalt Psychology* (New York: Liveright, 1929); Max Wertheimer, *Productive Thinking* (New York: Harper, 1945); Max Wertheimer, *Drei Abhandlungen zur Gestalttheorie* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1925); and Max Wertheimer, *Uber Gestalttheorie* (Erlangen, Weltkreis-Verlag, 1925).

flow of sensory stimulation, we see (or hear, or touch) a field divided into discrete and identifiable wholes.

This fundamental concept of perceptible wholes led to another premise of Gestalt psychology: the overwhelming tendency of the human's perceptual faculties to register the unity of a whole shape as opposed to the interrelationships among its parts. In other words, test subjects frequently did not recognize or did not understand parts of wholes when seen on their own. A picture of a lone table leg, without the other three legs or the flat horizontal surface, just looked like an oddly tapered shape rather than identifiably "a table leg." Conversely, subjects perceived wholes whenever possible, even if this required identifying the *absence* of a part. A picture of a square table with only three legs looked like a four-legged table with one leg missing. Having compiled data demonstrating this tendency in many scenarios, Gestaltists came to view as a basic principle of human vision the cognitive inclination to complete a whole and then, if need be, to interpret the actual percept's difference from it.

Two authors in particular, Rudolf Arnheim and Ernst Hans Gombrich, distilled, simplified, and translated some ideas of Gestalt psychology for an English-speaking art world. Arnheim's 1954 *Art and Visual Perception: A Psychology of the Creative Eye* applied Gestalt theory almost exclusively to

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vision, as opposed to its original and intended breadth encompassing all the modes of sensory perception.<sup>4</sup> (From the beginning then, it is important to note, writers tailored and transformed scholarship from the field of perceptual psychology in order to apply that research to the very different pursuits of aesthetics and art history.) Borrowing from Gestalt theory, Arnheim proposed a so-called "structural" analogy for seeing. A particular visual stimulus, when perceived, is accompanied by a broader "structural skeleton" or frame of reference that helps the mind to order the independent stimulus.<sup>5</sup> Arnheim thereby implicitly accepted the Gestalt notion that vision does not consist in the retina's mechanical recording of the visual flux strictly as it is but rather in apprehending wholes.<sup>6</sup>

Two other basic and related Gestalt concepts, originally developed to explain how we perceive the world, proved central to Arnheim's text about how we perceive art—"structural simplicity" and "constancy of shape and size." "Structural simplicity" describes how we see something according to the simplest configuration possible, whether or not this is accurate with regard to its material

<sup>&</sup>lt;sup>4</sup> Rudolf Arnheim, *Art and Visual Perception: A Psychology of the Creative Eye*, 1954 (Reprint, Berkeley: University of California Press, 1974).

<sup>&</sup>lt;sup>5</sup> Arnheim, Art and Visual Perception, 15, 93.

<sup>&</sup>lt;sup>6</sup> Ibid., 6.

reality.<sup>7</sup> "Constancy of shape and size" is one example of structural simplicity in that a percept's shape and size will appear constant unless there exists overwhelming evidence to the contrary.<sup>8</sup> A useful example for both ideas from Arnheim's book is the phenomenon of perspectival recession in painted imagery. Objects like tables are distorted when foreshortened and rendered in perspective; the regular square top of a table appears trapezoidal, for instance, in Caravaggio's *The Supper at Emmaus* of 1600–01 (fig. 1.1). This optical effect amounts to a decrease in the structural simplicity of the image, creating tension and a corresponding cognitive urge toward simplification. Rejecting the raw visual data (of a trapezoidal image) and instead assuming the simplicity and constancy of the table's shape, we are able to infer recession of a square table into pictorial space.

The distinctions between how we see the world and how we see imagery of the world seem to be of little consequence in *Art and Visual Perception*.

Arnheim did explicitly address the issue, however, by claiming that the "exalted" seeing we use to look at art derives from our everyday visual perception, although without going on to explain exactly in what ways exalted looking at art relates to and differs from what he presumably considered un-exalted looking at the world.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> Ibid., 181, 248, 383, 410.

<sup>&</sup>lt;sup>8</sup> Ibid., 104, 271.

<sup>&</sup>lt;sup>9</sup> Ibid., 5.

Nevertheless, it is telling that Arnheim felt he had to acknowledge and collapse this incongruity before proceeding. The very attempt calls attention to an unresolved question, an axiom that Arnheim never adequately established, but upon which subsequent arguments rest. The distinction itself—and moreover Arnheim's distractingly evocative term "exalted"—implies that there is indeed something unusual, heightened, or sublime about how we examine art. That this mode of looking is said to derive from how we see the world fails to suppress the their disparity.

In spite of this caesura in the argument, Gestalt theory often does provide at least some explanation for visual phenomena in art. As above, Arnheim applied the Gestalt concepts of structural simplicity and constancy to bidimensional imagery in particular. To offer another example: a squarish shape will look like a bidimensional square and not a tridimensional cube seen head-on because the square is structurally simpler than the cube. However, a bidimensional form will appear to be a projection of a tridimensional form whenever the latter offers a structurally simpler explanation. For instance, the six-sided bidimensional polygon called a "Necker cube" looks like an axonometric projection of a cube in space and not flat contiguous triangles and quadrilaterals (fig. 1.2). In this case the

<sup>&</sup>lt;sup>10</sup> Ibid., 248, 259–61, 271.

tridimensional form is structurally simpler than the complicated bidimensional configuration.

These poles intimate an intriguing middle ground where configurations vacillate between bidimensionality and tridimensionality because neither is markedly simpler—one of the concepts Larry Bell and others experimented with in their paintings. The larger point here is that unusual visual circumstances and an unusually acute mode of seeing are necessary to achieve this delicate ambiguity between definitive interpretations. One will notice innumerable surfaces when walking about in the everyday world but none seem to maintain their bidimensionality for long amid real tridimensional space. In the artificial and (nearly) bidimensional space of a painting, however, colored forms can exist on their own or depict tridimensional forms, or both, as Bell found (fig. 1.3).

With decades of experience seeing (and, furthermore, with decades of dependence on sight as our primary sensory faculty when engaging the world), we are seldom stumped. The peculiar perceptual ambiguity of forms in Bell's paintings—not optical confusion but rather a spatial wobble between two clear and contradictory possibilities of bi- and tridimensionality—exemplifies the many very strange phenomena that artists of the 1960s and 1970s set out to create and investigate. In doing so, they exhibited an interest shared with cubism,

constructivism, suprematism, and other movements constituting the earliest experimentation with modernism and abstraction in the twentieth century.

Critics had seen and celebrated somewhat similar visual effects in the first cubist works exhibited around 1908 and 1909. In Paul Cézanne's *The Bay of Marseilles, View from L'Estaque* (1885) and in so-called Analytical Cubist paintings by Pablo Picasso and Georges Braque such as *Portrait of Ambroise Vollard* (1910), the interwoven brushstrokes allow forms to bounce between foreground and background, subverting the tendency of structural simplicity toward a single and stable, that is to say, structurally-simplest and most constant, appearance (figs. 1.4, 1.5). In his 1936 *Cubism and Abstract Art*, Alfred H. Barr borrowed the term "passage" from nineteenth-century artists and art critics to designate this visual ambiguity where broken contour lines allow frontal and seemingly discrete forms to flow into the background and vice versa. <sup>11</sup> Twenty years after Barr, Arnheim invoked Gestalt principles in *Art and Visual Perception* to explain similar visual phenomena. <sup>12</sup>

And less than ten years after that, in the 1960s, artists began experimenting with illusionistic spatial ambiguities like those researched by the original Gestalt theorists. Oddly-shaped paintings by Bell, Ron Davis, Elizabeth

<sup>&</sup>lt;sup>11</sup> Alfred H. Barr, Jr., Cubism and Abstract Art (New York: The Museum of Modern Art, 1936).

<sup>&</sup>lt;sup>12</sup> Arnheim, Art and Visual Perception, 302.

Murray, Frank Stella, Neil Williams, and others adapt cubist "passage" to the entire canvas support. Unpainted, the surface of their shaped canvases looks just about bidimensional; colored forms upon the ground insinuate depth, however. Davis's irregular and attenuated many-sided supports, once painted, appear to be steeply foreshortened regular polygons receding deep into the wall (fig. 1.6). Bell painted the contour *of* the canvas support *upon* the canvas support, slightly reduced and often flipped. The resulting relationship between actual contour and depicted contour give his paintings a shallow depth comprised of twisting, stacked bidimensional planes (that also call to mind the mirror and glass reflections he investigated later).

Beyond painting, Robert Morris acknowledged in his "Notes on Sculpture" the importance of Gestalt theory to his tridimensional pieces (fig. 1.7). <sup>13</sup> Morris's so-called "unitary forms" are simple and consistent enough that any given viewpoint seems sufficient for the viewer to deduce the unseen sides. In this sense, they adhere to the Gestalt principles of structural simplicity and constancy of shape and size. Claes Oldenburg's sculptures often seek to playfully betray these same principles. The pieces of furniture in his *Bedroom Ensemble* 

<sup>&</sup>lt;sup>13</sup> Robert Morris's "Notes On Sculpture, Part I," *Artforum* 4 (February 1966): 33–34; "Notes on Sculpture, Part II," *Artforum* 5 (October 1966): 21–23; "Notes on Sculpture, Part 3: Notes and Nonsequitors." *Artforum* 5 (Summer 1967): 24–29; "Notes on Sculpture, Part 4: Beyond Objects." *Artforum* 7 (April 1969): 50–54; and *Continuous Project Altered Daily: The Writings of Robert Morris* (Cambridge and London: MIT Press, 1993).

(1963) actually do consist of steeply diagonal sides and acute angles, as opposed to structurally simpler horizontals, verticals, and ninety-degree angles (fig. 1.8). Physical space exists in the *Bedroom Ensemble*, but it is a much shallower space than we would predict if adhering to Gestalt principles. Bell's experimentation, Morris's extension, and Oldenburg's subversion demonstrate the great interest among artists of the 1960s and 1970s in plying firsthand the existing theories of how we manage to see and then make sense of visual phenomena.

## III. Development of Vision

The processes by which humans gradually improve their visual skills and eventually attain remarkable expertise served as a common area of research among interested philosophers, psychologists, artists, and art historians in the 1960s and 1970s. In his scholarship on art and aesthetics just before this time period, Arnheim examined the Gestalt position of how one comes to understand, by means of visual perception, a single class of objects and then to distinguish objects within that class. The Gestalt theorists rejected the idea that a child forms a notion of the general property of, say, "doggishness" only after perceiving many dogs, that is, individual members of the general class.

On the contrary, Gestaltists held that the child understands "doggishness" first, before he is able to distinguish one dog from another. <sup>14</sup> In other words, much of perceptual understanding initially flows from the general to the particular rather than from the particular to the general. When seeing the world, and eventually when seeing art, we form a perceptual template (which Arnheim called a "perceptual concept") that applies to the object we presently see as well as to other similar instances we may see in the future. <sup>15</sup> Such generalization and application of one particular piece of visual knowledge to new scenarios continues throughout our lives and, much of the time, the world appears to comply. The risk is in overextending prior experience: after all, one may encounter many visual phenomena in art and in the world that do not accord with everyday experience.

A connection between viewing art and viewing the world consists in the child's development of vision, how his or her early attempts to render objects demonstrate overall structural features rather than details. When a child colors a tree green, Arnheim claimed, he or she is not attempting to match the actual green of the leaves. Rather, the green is an overall structural impression of

<sup>&</sup>lt;sup>14</sup> Arnheim, Art and Visual Perception, 45, 167.

<sup>&</sup>lt;sup>15</sup> Ibid., 46.

<sup>&</sup>lt;sup>16</sup> Ibid., 168.

"treeishness" or trees in general, which the child understands and puts to use.

Arnheim combined with Gestalt theory the concept of one's differentiation of objects within the visual flux developed in particular by Swiss child psychologist Jean Piaget in *The Child's Construction of Reality* of 1937. Arnheim claimed that when toddlers draw near-circles, a circle is not the intended result. Instead, the near-circle signifies "thingness" not "roundness" since the child has not yet differentiated the shape of a circle from other shapes. Differentiation occurs soon, however. And at this stage near-circles do indeed signify roundness, a more specific class than thingness. As Arnheim explained, a child's circle can only signify a circle once he or she understands *non*-circular shapes such as squares and triangles, and thus the possibility of differentiating between them all. <sup>19</sup>

Before a child has seen many dogs or trees and before he or she has the ability to differentiate, all dogs and all trees seem to resemble one another.

Arnheim argued that this resemblance—this apparent *lack* of differentiation—strikes a child as the most notable property when he or she comes upon an unfamiliar percept. Assigning a particular instance to a general class undoubtedly serves cognitive understanding in this scenario; by establishing such

<sup>&</sup>lt;sup>17</sup> Ibid., 175. See also Jean Piaget, *The Child's Construction of Reality* (London: Routledge & Paul, 1955). The first edition imprint of this text is Jean Piaget, *La construction du réel chez l'enfant* (Neuchâtel and Paris: Delachaux & Niestlé, 1937).

<sup>&</sup>lt;sup>18</sup> Ibid., 181.

membership, one overrides the individual's inevitable accidentals. In the end, though, the lasting interest in dogs and trees, in other things of the world and in works of art, arises from the recognition of their astonishingly complicated variety and the realization that their identity will always be an imperfect match with an artificial and a priori class. To follow through on the analogy here: children take years to master visual perception of the world; it can take as long or longer to learn how to see the rich phenomena in nonfigurative artworks of the 1960s and 1970s tellingly mischaracterized as minimalist, reductivist, and cool. Works by Judd, Chamberlain, Irwin, Bell, and others may resemble one another at first glance or from the broadest art-historical purview. Upon sustained viewing, however, distinctions insistently arise. A lasting interest in these pieces demands parsing exactly how they appear. Like a child learning to see, it is again a question of looking closely enough, long enough, and often enough to prepare yourself to make distinctions.

Writing on the development of human vision several decades before Arnheim, art critic Roger Fry argued throughout his essays collected in *Vision and Design* (1920) that children and what he termed "primitive" civilizations make art according to what is conceptually important rather than striving after

<sup>&</sup>lt;sup>19</sup> Ibid., 177.

trompe l'oeil copies of the visible world. <sup>20</sup> Fry made a fundamental distinction between "ordinary vision" (also called "everyday vision") and "aesthetic vision" (also called "artistic vision"). <sup>21</sup> The former is concerned with what visual percepts mean and their subsequent valuation; the latter is concerned with how visual percepts feel. <sup>22</sup> Fry later expanded this duality into a four-tiered system. When seeing with "practical vision" (seemingly synonymous in Fry's writing with "ordinary vision" and "everyday vision"), we seek only to identify the percept and then look no more; with "curiosity vision," we notice an object's forms and colors as such, rather than as evidence of its identity; with "aesthetic vision" or "artistic vision" there is complete absorption in apprehending formal and chromatic relations; finally, with "creative vision," one is cognizant of the emotions and expressiveness of the object and almost completely detached from its identity. <sup>23</sup>

Fry demonstrated the consequences of "practical" / "ordinary" /
"everyday" vision with two useful comparisons: actually seeing a runaway horse

<sup>&</sup>lt;sup>20</sup> Roger Fry, *Vision and Design*, 1920 (Reprint, New York: Meridian Books, Inc., 1956), 12, 48, 85–91. The first edition imprint of this text is Roger Fry, *Vision and Design* (London: Chatto & Windus, 1920).

<sup>&</sup>lt;sup>21</sup> See Richard Shiff, "From Primitivist Phylogeny to Formalist Ontogeny: Roger Fry and Children's Drawings" in Jonathan Fineberg, ed., *Discovering Child Art: Essay on Childhood, Primitivism and Modernism* (Princeton, N.J.: Princeton University Press, 1998). For Fry's discussion, see Fry, *Vision and Design*, 10.

<sup>&</sup>lt;sup>22</sup> Shiff, "From Primitivist Phylogeny to Formalist Ontogeny," 157.

<sup>&</sup>lt;sup>23</sup> Fry, Vision and Design, 48–51.

and seeing a film of a runaway horse, and also between being at a crowded train station and watching a film of a crowded train station. <sup>24</sup> Encountering both scenarios in real life, Fry argued that we would experience radical "perceptual economizing." <sup>25</sup> In other words, we would see only what we need to see in order to act—jumping out of the way of the galloping horse and maneuvering into, out of, and through the crowd on the train platform. When perceiving with this mode of vision, we look only so that we may instantly recognize and identify objects in the visual field (in this way similar to the child's first few looks at dogs and trees described by Arnheim). The perceptual economizing involved becomes so immediate with repeated experience of the world that eventually only a glance is necessary before acting. Fry pointed out a noteworthy consequence of this visual expertise. We will only ever meticulously examine an object that exists for no other purpose than to be seen, one that "invites pure vision abstracted from necessity"—a work of art, for example. <sup>26</sup>

In everyday life it can be unfeasible if not outright dangerous to devote extreme amounts of time and attention to seeing peculiar visual phenomena. One is often trying to complete a task that takes precedence, for instance, avoiding the

<sup>24</sup> Ibid., 18–19.

<sup>&</sup>lt;sup>25</sup> Ibid., 20.

<sup>&</sup>lt;sup>26</sup> Ibid., 24–25.

path of some oncoming danger, navigating through a crowd to get from one place to another, or accomplishing some other "act" as Fry put it. Bell, Chamberlain, Irwin, Judd, and other artists found that, like most people, they were not used to examining art with the alternative intensive mode of seeing that Fry dubbed "creative vision." It took practice to break the habit of looking at works as if there were an act to be made or a goal to be met over and above that very looking.

We tend to default to everyday vision, allowing odd and interesting phenomena to succumb to the characteristic perceptual economizing. The risk here is that artworks may make little lasting impression. Arnheim's notion that the way we observe art derives from the way we see the world implies significant visual impoverishment. Indeed, Irwin acknowledged that "for a lot of people—it's like there's nothing there" when initially coming upon his altered gallery spaces (fig. 1.9).<sup>27</sup> He himself had trouble maintaining an uninterrupted gaze for fifteen or thirty minutes, which the works require. "I just did not have that kind of attention span, that kind of intensity," he admitted.<sup>28</sup> Soon after though, Irwin began to recalibrate his perceptual sensitivity. "I just forced myself to stay [in the studio, . . .] whether I did anything or didn't do anything, whether I was able to

<sup>&</sup>lt;sup>27</sup> Frederick S. Wight, "An Interview with Robert Irwin," *Transparency, Reflection, Light, Space: Four Artists* (Los Angeles: The UCLA Art Galleries, 1971), 96.

<sup>&</sup>lt;sup>28</sup> Lawrence Weschler, partially processed interview transcript, 1977, in "Robert Irwin Project Interviews" (Los Angeles: Oral History Program, University of California, Los Angeles), 45.

work or not able to work, I simply would not let myself leave."<sup>29</sup> Irwin and other artists came to realize that the longer one kept looking, the more visual phenomena would become discernible. The brevity and economy of practical, ordinary, everyday vision often proves inadequate if one hopes to make such discoveries.

Children, so-called "primitives," and nonfigurative "formalist" artists employ aesthetic and creative vision, Fry maintained, and this mode of seeing provides them access to the expressive idea or emotions behind the art object. 30 By observing in such a way, these viewers are able to bracket out the identity and otherwise narrative significance of what painted forms depict. Fry claimed that this kind of complete apprehension in the painted forms themselves consists of three levels of appreciation: "physiological pleasure" from the colors and textures, "aesthetic pleasure" from the compositional relations between parts, and "unity-emotion," an empathy with the artist's emotional state. 31 Unlike children, "primitives," and nonfigurative artists, an academic artist paints with the same ordinary vision he or she uses in the external world. The resultant work suffers in not offering anything beyond that which ordinary vision registers; in academic

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<sup>&</sup>lt;sup>29</sup> Frederick S. Wight, "Robert Irwin" interview transcript, 1975–76, in "Los Angeles Art Community: Group Portrait" (Los Angeles: Oral History Program, University of California, Los Angeles, 1977), 40–41 (phrases reordered); and Weschler, interview transcript, 45.

<sup>&</sup>lt;sup>30</sup> Fry, Vision and Design, 12.

paintings, Fry found little in the way of physiological pleasure, aesthetic pleasure, or unity-emotion. Innovative art, however, demands that we "cut off" the usual perceptual economizing characteristic of ordinary vision. <sup>32</sup> New art requires that we see anew, providing the opportunity to discern what we usually cannot or do not. Some artists of the American avant-garde in the 1960s and 1970s and, more broadly, modernists throughout the twentieth century shared this position with Fry, assuming a posture of inquiry and investigation into new modes of seeing.

Fry believed that most children and "primitives" demonstrate a natural facility for making art with honest emotion and expression, while academic training only impoverishes these abilities. Important conceptual features like eyes, ears, and horns are disproportionately large in children's drawings, whereas less significant features like torsos sometimes disappear altogether. Fry, such images are more successful in relaying information than those of academic painters, whose compositions resemble the naïve verisimilitude of images by the so-called "Bushmen" of Africa and Neolithic humans (whose intellects, Fry argued, cannot yet edit visual sensations so as to form broader conceptualizations

<sup>&</sup>lt;sup>31</sup> Ibid., 83–84.

<sup>&</sup>lt;sup>32</sup> Ibid., 242.

<sup>&</sup>lt;sup>33</sup> Ibid., 85, 91.

of the visual world, causing sensory data to remain mostly unprocessed).<sup>34</sup> This position implies striking conclusions about the education of artists. Children should reject their own increasing technical and visual capacity to make trompe l'oeil copies of the visible world, since improving these skills threatens their natural gift for creating expressive art.

Although education differs from experience, Fry's notion of natural artistic abilities and hard-wired perceptual skills seems to contradict other thinkers' belief that trial-and-error learning is fundamental to artmaking and to sensory perception in general. Indeed, Judd, Chamberlain, Irwin, and Bell have framed their practices in terms of discovering new visual phenomena and learning about the world (an empirical education that Fry might have supported as an alternative to academic training). To discover unprecedented phenomena, one has to see them. And to see anew means looking with a hypersensitive mode of vision. For most of us, this heightened sensitivity must be developed through practice, very much like the laborious trial-and-error learning involved in the child's mastering of practical, ordinary, everyday vision.

## IV. Empiricist Trial and Error

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<sup>&</sup>lt;sup>34</sup> Ibid., 94–97.

Ernst Hans Gombrich, in *Art and Illusion: A Study in the Psychology of Pictorial Representation* (1960), proposed conceiving of art history in accordance with the gradual modifications of human vision through the ages. <sup>35</sup> The conventions of image-making change in response to new visual demands, he argued, which are in turn governed by physiological, political, cultural, educational, and other forms of human development within a civilization and from one civilization to another. As Gombrich himself noted, this model echoes in some ways that of Alois Riegl's *Late Roman Art Industry* (1901), which organized art history according to changing modes of perception under which successive cultures strived for realism (a goal Riegl posited as universal but differently understood and realized between cultures). <sup>36</sup>

This notion of changing modes of perception amounts to a clear distinction with respect to the original Gestalt psychologists and a difference of degree from Arnheim's art-historical account. Gestalt theorists minimized the role of learning and experience. Cognitive tendencies, they argued, are innate features of the human brain. Indeed, pushed to an extreme, Gestalt theory should hold true across all cultures and in all times of modern human existence due to the fact that

<sup>&</sup>lt;sup>35</sup> Ernst Hans Gombrich, *Art and Illusion: A Study in the Psychology of Pictorial Representation* (New York: Pantheon Books, 1960), xii.

<sup>&</sup>lt;sup>36</sup> Gombrich, *Art and Illusion*, 18–20. See also Alois Riegl, *Die spätrömische Kunst-industrie* (Wien: Druck und Verlag der Kaiserlich, 1901); Alois Riegl, *Late Roman Art Industry*, ed. Rolf

brain function remains more or less identical. Much of Gombrich's account depends on and extends Gestalt concepts of breaking up the visual field into discrete wholes. However, he ultimately took the empiricist position that the learning process of trial and error is essential to visual perception, an idea contrary to the original Gestalt psychologists (and also, he pointed out, contradicting John Ruskin's notion of the "innocent eye"). 37

According to Gombrich, we continually hypothesize and refine conclusions in the name of mastering the connection between what we see and what is there, between sensory data and material reality. He held that differentiating the visual flux into simple and constant structures is integral to perception but is *not* innate as the Gestaltists suggested (and as Anton Ehrenzweig further elaborated in discussion of "dedifferentiating" "figures" and "ground" in his 1967 *The Hidden Order of Art*). In Instead, Gombrich believed this process of dividing up the visual field to be a pragmatic strategy suited to help one learn. In other words, assuming structurally simple and constant forms is the most useful

Winkes (Rome: Bretschneider, 1985); and Margaret Olin, *Forms of Representation in Alois Riegl's Theory of Art* (University Park, Penn.: Pennsylvania State University Press, 1992).

<sup>&</sup>lt;sup>37</sup> Ibid., xiii, 88, 272, 327. For comments on Ruskin, see ibid., 14, 297–98.

<sup>&</sup>lt;sup>38</sup> Ibid., 274.

<sup>&</sup>lt;sup>39</sup> Anton Ehrenzweig, *The Hidden Order of Art: A Study in the Psychology of Artistic Form* (Berkeley: University of California Press, 1967). For the mention of Ehrenzweig's work generally, see Gombrich, *Art and Illusion*, 27.

tack since, with any additional visual data, such assumptions are easily proven wrong, understood as such, and quickly revised. 40 Gombrich adapted the Gestaltist principles of structural simplicity and formal constancy by interpreting them as practical, actionable strategies rather than as innate cognitive tendencies.

This empiricist process of trial and error served as a point of convergence for contemporaneous authors of the 1940s and 1950s on perceptual psychology and aesthetics. Gombrich noted how S. I. Hayakawa ("The Revision of Vision," 1944), György Kepes ("The Language of Vision," 1944), André Malraux (*The Psychology of Art*, 1947), Karl R. Popper (*The Open Society and Its Enemies*, 1945), Leo Postman (*Experimental Psychology*, 1949), and Friedrich. A. von Hayek (*The Sensory Order*, 1952) all held that we initially make conclusions about the real world based on very little sensory data. <sup>41</sup> Then, as additional information becomes available from subsequent observation of sensory phenomena, we test our original conclusions, confirming or denying their

<sup>&</sup>lt;sup>40</sup> Gombrich, Art and Illusion, 88.

<sup>&</sup>lt;sup>41</sup> See S. I. Hayakawa, "The Revision of Vision," *Language of Vision* (Chicago: Paul Theobald, 1944); György Kepes, "The Language of Vision," *Language of Vision* (Chicago: Paul Theobald, 1944); André Malraux, *Psychologie de l'art* (Genève: A. Skira, 1947); André Malraux, The *Psychology of Art*, trans. Stuart Gilbert (New York: Pantheon Books, 1949); Karl. R. Popper, *The Open Society and Its Enemies* (London: Routledge, 1945); Leo Postman, *Experimental Psychology, An Introduction* (New York: Harper, 1949); and Friedrich A. von Hayek, *The Sensory Order: An Inquiry into the Foundations of Theoretical Psychology* (Chicago: University of Chicago Press, 1952). See also Ernst Hans Gombrich, "André Malraux and the Crisis of Expressionism," *The Burlington Magazine* (December, 1954). For the mention of these authors, see Gombrich, *Art and Illusion*, 28.

accuracy. Movement of the head and body, for example, is crucial to this process of paring away at initial assumptions. <sup>42</sup> We watch the corresponding change in the object of perception as we shift positions and viewpoints. Doing so allows us to more quickly and more accurately guess at the actual properties of the object based on the observed changes in its form (or, more subtly, based on its adherence to or departure from the changes we *expect* to see given prior experience).

One might assume that hypothesizing an object's physical reality based on visual phenomena would be straightforward in so-called minimalist art of the 1960s and 1970s. Indeed, a commonplace principle of some projects from this time was the necessity of staying true to one's materials: wood should clearly appear to be wood, metal as metal, and so on. But significant distinctions about what truth to materials entailed existed between artists, as Frances Colpitt noted in her 1990 book *Minimal Art: The Critical Perspective*. Carl Andre's metal plates are heavy and you are supposed to touch them to get a sense of their mass and weight (fig. 1.10). "It is exactly these impingements upon our sense of touch and so forth that I'm interested in," he said in a 1970 interview. "Mass... is a fundamental sense of sculpture. That's why I have never done hollow works. I

<sup>&</sup>lt;sup>42</sup> Gombrich, Art and Illusion, 274.

<sup>&</sup>lt;sup>43</sup> See Frances Colpitt, *Minimal Art: The Critical Perspective* (Seattle: University of Washington Press, 1990): 57, n. 103.

<sup>&</sup>lt;sup>44</sup> Andre in Phyllis Tuchman, "An Interview with Carl Andre," *Artforum* 8 (June 1970): 60.

like the sense of heaviness of it."<sup>45</sup> Insisting upon this tactile experience, Andre repeatedly discounted seeing. "I do not visualize works and I do not draw works and the only sense I have running through my mind of the work is almost a physical lifting of it," he explained. "It's not a visual sense, it's a physical sense."<sup>46</sup>

Donald Judd's aluminum objects are heavy, too, but can appear much lighter when illuminated and installed on the wall. Responding to art critic John Coplans' assertion that "all your pieces are pretty light in weight," Judd responded,

Yes, they're light pieces. For the most part I've always been interested in making light pieces. I dislike sculptural bulk, weight and massiveness. The big box shown at the Metropolitan Museum weighs four thousand pounds, but it doesn't look heavy even though it's a great big tube with an incredible volume of space.<sup>47</sup>

Strictly speaking, Judd's example of a 4,000-pound work contradicts both Coplans' assertion that the pieces are light as well as his own initial agreement

<sup>&</sup>lt;sup>45</sup> Andre in Achille Bonito Oliva, "Interview with Carl Andre," *Domus* (October 1972): 52.

<sup>&</sup>lt;sup>46</sup> Andre in Jeanne Siegel, "Carl Andre: Artworker," *Studio International* 180 (November 1970): 178.

<sup>&</sup>lt;sup>47</sup> Judd in John Coplans, "An Interview with Don Judd," *Artforum* 9 (June 1971): 45.

with that statement. Many of Judd's pieces may look light but are not in actuality. For example, a 1969 work open on both ends with a purple Plexiglas-covered interior (DSS 179), consists of roughly 76 square feet of aluminum that is about a quarter-inch thick (fig. 1.11). A 1972 box with an open top and red enameled bottom (DSS 271), is about 65 square feet of copper and 30 square feet of aluminum, both of which appear to be around a quarter-inch thick (fig. 1.12). Put in these terms, the physical mass and weight of these objects becomes more understandable (try to imagine the strain of lifting 76 square-foot tiles of aluminum—not unmanageable but not light either). Unlike Andre, Judd intended his art to be a visual experience first and foremost: you were not supposed to touch his objects to test and, in so doing, contradict their apparent lightness. In this sense, Andre's tactile art and Judd's visual art each effected a different truth to materials.

<sup>&</sup>lt;sup>48</sup> Coplans often edited his interviews heavily—even more than most interviewers—and I suspect that Judd's initial response was more qualified than the unambiguous confirmation, "yes, they're light pieces." This hunch primarily rests on the fact that Judd's next sentences home in on a distinction between looking light and being light that Coplans' original statement ("all your pieces are pretty light in weight") muddles. I have not been able to locate an original recording of this interview to verify the text.

<sup>&</sup>lt;sup>49</sup> "DSS" refers to Dudley Del Balso, Roberta Smith, and Brydon Smith, the three contributors to the "Catalogue Raisonné of Paintings and Objects, 1960–1974" in Brydon Smith, *Donald Judd* (Ottawa: The National Gallery of Canada, 1975). Del Balso, Smith, and Smith wrote that they had sought to "include all the paintings and objects made by Donald Judd between 1 August 1960, when he moved into his studio at 53 East 19<sup>th</sup> Street, and 1 July 1974" (92).

Larry Bell, like Judd, made art to look at and not to touch. The glass cubes demonstrate a similar incongruity between actual weight and apparent weightlessness. For example, Bell noted that the considerable amount of mirrored and transparent glass in *Larry Bell's House, Part II* (a precursor of the cubes) made the piece "so heavy I could hardly move it" (fig. 1.13). Despite this likeness in terms of a strictly visual experience, an important difference between Bell's and Judd's objects exists. Bell obscured material properties of his works that would distract from their appearance whereas Judd frequently did not. As light reflects off Judd's metal boxes, they may appear to dematerialize; nevertheless, their sitting on the gallery floor intimates the aluminum's actual weight and solidity, remaining true to how it is (heavy) and ultimately exposing

<sup>&</sup>lt;sup>50</sup> Larry Bell, *Larry Bell: The Sixties* (Santa Fe: Museum of Fine Arts, Museum of New Mexico, 1982), 16.

<sup>&</sup>lt;sup>51</sup> Barbara Rose made a distinction between works by Judd and Bell in her catalog essay for the 1965 "A New Aesthetic" exhibition:

The tendency today, with regard to illusionism, is either to resolve or to heighten the discrepancy between seeing and knowing (or experience and actuality). Judd and the makers of specific objects resolve it by eliminating it; David, Bannard, Zox, Stella, Williams, etc. heighten it by insisting on pairing contradictory illusions within the same space. Albers' isometric drawings are one prototype of this type of complex, reversible illusionism. That the two attitudes toward illusionism are related is proved by Larry Bell's progression from the latter (in his reliefs) to the former (in his glass boxes).

See Barbara Rose, "A New Aesthetic," *A New Aesthetic* (Washington, D.C.: The Washington Gallery of Modern Art, 1967), 18–19, n. 7. I disagree with the ultimate conclusion here; Bell's cubes are more similar to his paintings than they are to Judd's objects. Nevertheless, the distinction itself is adroit, particularly since arrived at in 1965 without the advantage of works yet to come that would further distinguish Judd's and Bell's practices.

how it looks (not heavy) as illusory.<sup>52</sup> Bell, on the other hand, stayed true to how glass looks as opposed to how glass really is. The cubes—frequently between 12 and 16 inches a side—do not look heavy, and, once raised on transparent Plexiglas plinths and shimmering amid a gallery's ambient light, it is difficult to confirm one's suspicion of optical illusion. Vision is the only permitted sensory mode, and yet the visual information one finds is so perplexing that it stalls cognitive conclusions of material reality (short of touching the objects, which is precisely what we feel the urge to do when faced with such uncertainty).

Becoming perplexed by the seeming incongruity between visual and material properties—how heavy something looks to be and how heavy it actually is—exemplifies one of the inevitable blunders Gombrich identified as intrinsic to the process of perceptual development. In order to discern wholes within the visual field and otherwise organize sensory data, he emphasized the importance of cognitive categories. <sup>53</sup> Responding to visual stimuli, Gombrich maintained, requires pigeonholing them. <sup>54</sup> Some initial, albeit coarse, method to structure sensory data allows us to understand the visual field as comprising various discrete percepts, and to begin to ponder physical properties like the opposed

<sup>&</sup>lt;sup>52</sup> Obviously this distinction only holds for Judd's objects that do in fact sit on the floor. Those secured to the wall—like the 4,000-pound piece Judd and Coplans discuss—appear weightless.

<sup>&</sup>lt;sup>53</sup> Gombrich, Art and Illusion, 74, 228.

<sup>&</sup>lt;sup>54</sup> Ibid., 88.

appearances of lightness and weight. Mistakes proliferate, but they prove to be both unavoidable and useful, prompting adjustment of the initial categories.

As we gradually improve our cognitive categories through this trial and error process, we learn to see with greater accuracy. Eventually, it will occur to a viewer that a Judd work and a Bell cube can look light but be heavy, a coupling of properties that perhaps necessitates a new category or at least the tweaking of existing ones. As Gombrich argued, discoveries arise from initial confusion. In his words, "Perception is the modification of anticipation. It is an active process, conditioned by expectations and adapted to real-world situations." While the frequency of errors may lead one to distrust the senses altogether, Gombrich's theory amounts to the opposite response: repeatedly testing, assessing, and refining vision. This proposed approach promises a newly acute (and continually improving) mode of perception with which one may discover altogether unfamiliar visual phenomena.

During the 1960s and 1970s several artists seized upon this notion of making discoveries and learning through the art they fabricated. In a 1975 interview with Friedrich Teja Bach, Donald Judd claimed to be a "thorough

<sup>&</sup>lt;sup>55</sup> Ibid., 172.

empiricist" and elsewhere wrote that he "leapt into the world an empiricist." <sup>56</sup> "I believe in what I feel, know, and experience, and I follow the interests inherent in myself," he asserted. <sup>57</sup> John Chamberlain thought of art as a teacher. "My idea about art was that it was unprecedented knowledge," he explained. "I make something [and] I really get the feeling that I haven't seen that before." <sup>58</sup> Larry Bell agreed with these sentiments as well. As he recounted, "John Chamberlain told me that art is a teacher. [. . .] I like that thought." <sup>59</sup> "As I look back on the early pieces," Bell recalled, "the thing that is most dramatic about them to me is how much I learned from them, how much I learned on my own about things that I never before even considered relevant." <sup>60</sup> And Robert Irwin's practice in large part consists in learning to see more. "My highest ambition is, in a sense, to make

<sup>&</sup>lt;sup>56</sup> Friedrich Teja Bach, interview with Donald Judd, May 5, 1975, Archives of the Donald Judd Foundation, Marfa, Texas, as cited in David Raskin, "Donald Judd's Skepticism," unpublished Ph.D. dissertation, The University of Texas at Austin, 1999, 3, n. 3; and "Two Contemporary Artists Comment," *Art Journal* 41 (Fall 1981), reprinted in Donald Judd, *Complete Writings* 1975–1986 (Eindhoven: Van Abbemuseum, 1987), 15. See also Raskin, David. "The Shiny Illusionism of Krauss and Judd." *Art Journal* 65, no. 1 (Spring 2006): 7–21.

<sup>&</sup>lt;sup>57</sup> Donald Judd, "Art and Architecture," Complete Writings 1975–1986, 35.

<sup>&</sup>lt;sup>58</sup> Hans Ulrich Obrist, *John Chamberlain* (Cologne: Verlag der Buchhandlung Walther König, 2006), 90.

<sup>&</sup>lt;sup>59</sup> Larry Bell, "In Reflection," *Larry Bell: New Work* (Yonkers, N.Y.: The Hudson River Museum, 1980), 76; and Larry Bell, "On the Ellipse," *On the Ellipse* (Newport Harbor, Cal.: Newport Harbor Art Museum, 1982), 3 (phrases reordered).

<sup>&</sup>lt;sup>60</sup> Larry Bell, "First Person Singular," *Larry Bell: Works from New Mexico* (Lyon, France: Musée d'Art Contemporain, Lyon, 1989), 16.

you see a little bit more tomorrow than you saw today," he affirmed.<sup>61</sup> "What I'm really trying to do, is to draw your attention to, my attention to, looking at and seeing all those things that have been going on all along, but which have been previously too incidental or too meaningless to really seriously enter into the dialogue of our whole visual structure, our picture of the world."<sup>62</sup>

Most artists, including these four, did not conceive of their works as direct responses for or against the theories of the Gestalt psychologists, Fry, Arnheim, or Gombrich. Nevertheless, in making art, painters and sculptors engaged some of the same general questions as these thinkers. Scientists, psychologists, philosophers, and artists concerned themselves with an investigation into the function, limits, and expansion of human perception. Along with this broad correlation, significant distinctions also hold true. Psychologists sought to explain perception in itself; aestheticians and art critics sought to explain the role of perception in viewing art; and artists aimed to teach themselves to perceive more of the uncommon and puzzling phenomena that otherwise escape notice. These investigations overlap but also substantially diverge.

<sup>&</sup>lt;sup>61</sup> Milton Esterow, "How Public Art Becomes a Political Hot Potato," *Art News* 85, no. 1 (January 1986): 79. See also Robert Irwin, "Introduction: *Change, Inquiry, Qualities, Conditional," Being and Circumstance: Notes Toward a Conditional Art* (Larkspur Landing, Cal.: The Lapis Press, 1985), 25.

<sup>62</sup> Wight, "Robert Irwin," 112.

## V. Illusions

As our perceptual skills develop, we become more adept at inferring material reality from perplexing sensory data. One example of such progress is the ability to anticipate, recognize, and correct for optical illusions. Gestalt theory maintains that we resolve some illusions through innate tendencies of the human perceptual apparatus, as in the case of what the Gestaltists termed the principles of structural simplicity and formal constancy. Again, we understand the image of a trapezoidal tabletop to be a rectangular surface receding in depth because a rectangle is structurally simpler than a trapezoid. How one comes to eventual understanding of illusions when observing the world at large (as opposed to the specialized category of illusions in a pictorial format) proves more difficult to assign to intrinsic properties of human vision. On the contrary, the role of experiential learning seems key.<sup>63</sup>

<sup>&</sup>lt;sup>63</sup> For evidence of the Gestalt premise that we tend to see what is simplest, consider again an axonometric projection of a cube. We understand it to represent a regular tridimensional solid in pictorial depth rather than an arrangement of contiguous triangles and quadrilaterals. As discussed above, the same goes for the table: we see a foreshortened rectangular object rather than a trapezoidal object. Consider, however, what happens if we remove "table-ness" from the proposed example here. The geometric shape of a trapezoid drawn on a sheet of paper looks like a trapezoid and *not* a foreshortened rectangle. The identity of a percept as a table—coupled with our previous experience of what tables are like—seems to play a definitive role how we interpret the percept. The same may be true of the axonometric projection. We have more experience with tridimensional cubes than we do the alternative bidimensional configuration. It may be that we see the former instead of the latter because it is more familiar, not because it is simpler.

A white handkerchief in shade and a lump of coal in sunshine—how would we describe the object's color in both examples?<sup>64</sup> Gombrich pointed out that we usually conceptualize hue as if it were a constant property of objects, even in the face of seemingly contradictory visual evidence (as when, more often than not, we see variation from this presumed norm).<sup>65</sup> If asked the color of the shaded handkerchief, one would likely say white (the color we know handkerchiefs to be) rather than gray (the actual but incidental color we see when looking at this particular handkerchief). Similarly, one would probably say the illuminated coal is black because, without consciously meditating upon it, we know to correct what appears under the shining sun to be a gleaming white lump.

We instantaneously interpret and translate raw perceptual input so that visual reality or "how it looks" falls back in line with material reality or "how it is." Reestablishing this congruity stabilizes our understanding of a percept's fundamental properties, which in turn helps us to identify and act upon it (in keeping with Fry's notion that the primary function and primary consequence of practical, ordinary, everyday vision are, respectively, identification and action). But a loss accompanies this gain. In asserting that the shadowy handkerchief is white and the lit coal black, we forego much of the complex sensory information

<sup>&</sup>lt;sup>64</sup> Gombrich, Art and Illusion, 52; and Arnheim, Art and Visual Perception, 305–14.

<sup>65</sup> Gombrich, Art and Illusion, 52.

to be seen. Acknowledging and scrutinizing the illusions of a gray handkerchief and white coal constitute a new and strange visual experience. When one takes notice of the puzzling ways things appear during that moment just before the usual cognitive correction, the world becomes less a realm of identifiable objects to be acted upon and more a continuous flux of curious phenomena to be observed.

And if this conclusion holds true when we observe the world, it may also figure into our comprehension of illusions in art. Pictorial foreshortening, figurative sculpture's expansions or reductions of true scale, and the dematerializing reflections off Judd's brass and Bell's glass exemplify the wide variety one finds. Learning to see and to consider these peculiar visual phenomena that characterize many artworks of the 1960s and 1970s can even bring about a more acute perceptual mechanism. We test our eyes and mind by examining such pieces, and, in so doing, both encounter unexpected visual data at that moment and prepare ourselves for our next encounter with unprecedented phenomena. In new art, discovery seems inevitably to foment additional discovery.

Take, for example, the perplexing color effects that occur as one moves back and forth in front of John Chamberlain's lacquer paintings. At a standard viewing distance of around two feet, what appears to be uniform purple in one

such piece reveals, at an inch or two away from the layered surface, that it is in fact composed of violet, red, and gold glitter (fig. 1.14). A green stripe in the same work actually has more gold glitter than green, as well as scattered bits of red. And while the appearance of purple and green derive from multicolored metallic particles in colorless lacquer, a gray stripe in this painting consists of fewer and solely gray specks in a gray binder, tinted purple by the underlying ground but otherwise opaque. This complicated appearance remains largely imperceptible without a kind of visual scrutiny more acute than ordinary vision.

Making a single such discovery intimates the rich play of other visual phenomena in Chamberlain's lacquer paintings and encourages one to keep experimenting with them. As with the illuminated coal and as with the shadowed handkerchief, the color of the stripes and ground in these pieces seems to alter continuously. Simply crossing in front of a work adds variation, for example. As Chamberlain noted, the pieces "change color as the light changed [and] as you walk past them." When light rakes over the surface, or as a viewer passes by, the ground's violet, red, and gold flakes glint on and off at random. When viewed from an extreme angle, however, the chromatic surface fades and darkens to a more or less uniform slate gray. Although only violet, red, and gold specks sit

<sup>&</sup>lt;sup>66</sup> Chamberlain in "Excerpts from a Conversation Between Elizabeth C. Baker, John Chamberlain, Don Judd, and Diane Waldman," in Diane Waldman, *John Chamberlain: A Retrospective Exhibition* (New York: The Solomon R. Guggenheim Museum, 1971), 19.

within the clear lacquer, it seems wrongheaded to dismiss the illusions of purple and slate. After all, these visual phenomena and the piece's mutability amount to an integral property, a characteristic that differentiates Chamberlain's paintings from most others. One must look with an unusually patient and acute mode of vision to see all the phenomena they offer. And this new visual knowledge constitutes its own reward—a discovery originating in one's intense concentration on raw visual data. Illusions exist; sometimes we ought to try seeing them as they are.

Cited by both Gombrich and Arnheim, the experimental illusions of Adelbert Ames, Jr. evince the difficulty of seeing what actually exists before us, prior to cognitive interpretation. In one of Ames's tests described in *Trans/formations* magazine in 1950, a viewer looks through a peephole into three bays, each containing a configuration of string and a solid plane. One bay has an arrangement that resembles the shape of a chair; another has a chair-like construction except in extreme anamorphosis; and, in the third, the materials are seemingly scattered at random. In spite of these considerable physical differences, test subjects identified all three arrangements as chairs when looking through the

<sup>&</sup>lt;sup>67</sup> Gombrich, Art and Illusion, 248–49; Arnheim, Art and Visual Perception, 275.

<sup>&</sup>lt;sup>68</sup> See Adelbert Ames, Jr., "Sensations, Their Nature and Origin," *Trans/formations* 1, no. 1 (1950): 11–12; and Sigfried Giedion and Alfred H. Barr, Jr., "Notes on the Ames Demonstrations: Art and Perception," *Trans/formations* 1, no. 1 (1950): 8–10.

restrictive peephole. Ames held that these results demonstrate that "perceptions are not disclosures," as he put it. In other words, subjects tended to perceive something familiar whether or not that understanding accorded with the visual or material reality of the set-up. <sup>69</sup>

Gombrich, agreeing with Ames's conclusion ten years after the *Trans/formations* article, argued that the experiments made manifest the significant role of cognitive interpretation in perception. One formulates a conclusion of what is actually in the bays by assuming the configurations' structural simplicity and accordance with what one recognizes from previous experience. Alternatively, it would be difficult to conceive of or even to see the true form of the stretched and scattered arrangements in the second and third bays, since one has no experience of or names for such things. The pivotal role of prior experience in perception means that familiarity trumps fidelity; the urge to identify raw visual phenomena as previously-encountered percepts is so strong that we consciously ignore or unconsciously overlook input contradicting such an assessment.

This utilitarian mode of looking necessarily impoverishes our visual experience. The benefit of this trade-off is that we become able to make quick

<sup>&</sup>lt;sup>69</sup> Ames, "Sensations, Their Nature and Origin," 11–12.

<sup>&</sup>lt;sup>70</sup> Gombrich, Art and Illusion, 248–49.

judgments of our surroundings and to take action without getting bogged down in minute discrepancies. The ostensibly inconsequential details that one misses may very well turn out to be fascinating, however. Robert Irwin summarized the stakes: "We block out that information which is not critical to our activities[,] and after a while, you know, you do that repeatedly, day after day after day, and the world begins to take on a kind of fairly uniform look to it."71 What is out of the ordinary is also, ipso facto, interesting. By not paying attention to extraordinary visual phenomena—the multitude of ways things will often end up differing from our expectations upon further observation—we ensure that everything will forever appear ordinary. Another approach exists, as some mid-twentieth-century artists learned through their experiments with perception and sensory phenomena. We can allow ourselves to have new experience and to make unexpected discoveries by trying to see much more than we usually do. It all starts by acknowledging the way things really look, by stalling cognitive correction of the incidental appearances one finds, and by examining the qualities of such illusions in themselves.

A second Ames experiment discussed by Arnheim demonstrates how perception may retreat too hastily to previous experience and in the end prove

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<sup>&</sup>lt;sup>71</sup> Wight, "Robert Irwin," 163.

misleading.<sup>72</sup> The test studied how subjects perceive people standing at different spots within crooked rooms, a scenario pitting two varieties of prior knowledge against one another, namely, knowledge of human beings and knowledge of rooms. Loosely speaking, as we try to make sense of the scene before our eyes, we may assess either the room and then the people, or the people and then the room. In both cases, cognitive familiarity and expectation seem to determine what we think we see—the point Arnheim sought to drive home. If we start with the people, the rather small range of possible height differentials in human beings forces us to make the odd conclusion that the room is crooked (an unexpected and unlikely scenario, but one not altogether unimaginable). However, if we start with the room, the space appears standard and rectangular, which forces us to deduce that the people are impossibly tall and short (an anatomically unfeasible explanation). Ames found that, startlingly, the illusion of a normal room seems to win out against the counter-evidence of people's wildly differing heights. Cubical rooms are so ingrained in our past perceptual experience and subsequent perceptual anticipation that instead of considering their alternatives, we will insistently cling to an incorrect interpretation of what we see.

Recall Donald Judd's seemingly light 4,000-pound aluminum work and the ethereal glass object that Larry Bell found he could scarcely lift. As when

<sup>&</sup>lt;sup>72</sup> Arnheim, Art and Visual Perception, 275.

perceiving Ames's tapered rooms, our dependence upon prior experience may eliminate evident complexity, making great sacrifices for the sake of comprehensibility. A stranger, and likely more interesting, examination of these aluminum and glass pieces will ensue if one attends to the illusion of insubstantiality along with its apparent contradiction of the materials' profound heft. Artworks by Judd, Chamberlain, Irwin, Bell, and some others during the 1960s and 1970s invite us to practice a new way of seeing. We can acknowledge the novelty of perplexing phenomena and ponder exactly what we observe, instead of forcing such oddities into conformity with expectations. Perception will always depend upon prior experience to some degree; at times, though, one discovers a great deal more by insistently restricting how much it does so.

## VI. Semiotics: The Index in Perception

Charles Sanders Peirce's semiotic study of perception in the early twentieth-century provides a framework with which to analyze the problem that Ames's experiments unveil, namely, the inaccuracy possible when we form conclusions about actual things in the world—like artworks by Judd and Bell—by interpreting sensory phenomena. One of the many ways that Peirce defined the "index" is as "a fragment torn away" from a visible "Object" existing in the world

(and elsewhere he called such an Object a "percept"). Complementing this association with another, Peirce went on to argue that a percept (such as a yellow chair) has an indexical relation to our perceptual judgment of it (the statement, "The chair is yellow."). And combining these two premises, Peirce held that the relationship between what we see and what is there is indexical, that is to say, what we see of the percept can be thought of as a fragment torn away from it.

These positions pit Peirce against the radical skepticism formulated by eighteenth-century philosopher and arch-antirealist George Berkeley in "An Essay Towards a New Theory of Vision" of 1709.<sup>75</sup> Berkeley argued that "the very different and distinct ideas of those two senses [sight and touch] are so blended and confounded together as to be mistaken for one and the same thing." In order to demonstrate how inaccurate seeing is, Berkeley offered the counterexample of a person who would *not* confuse seeing and touching:

A man born blind and made to see would not consider the ideas of sight with reference to, or having any connection with the ideas of

<sup>&</sup>lt;sup>73</sup> Charles Sanders Peirce, *Collected Papers*, 8 vols, eds. Charles Hartshorne and Paul Weiss (Cambridge: Belknap Press of Harvard University Press, 1960), 2:137.

<sup>&</sup>lt;sup>74</sup> Peirce, *Collected Papers*, 7:373–74.

<sup>&</sup>lt;sup>75</sup> George Berkeley, "An Essay Towards a New Theory of Vision," 1709, *Philosophical Works: Including the Works on Vision*, ed. Michael R. Ayers (Totowa, N. J.: Rowman and Littlefield, 1975).

<sup>&</sup>lt;sup>76</sup> Berkeley, "An Essay Towards a New Theory of Vision," §79.

touch. He would judge his thumb, with which he might hide a tower or hinder its being seen equal to that tower; or his hand, the interposition whereof might conceal the firmament from his view equal to the firmament.<sup>77</sup>

This same man would have no experience of how polished brass and gleaming glass look, and he would not conceive of the intriguing contradiction between the apparent weightlessness and yet physical weight of Judd's and Bell's artworks. As Berkeley said, how the materials look would trigger no cognitive reference to or any associative connection with weight or lack thereof.

In a 1976 interview, Robert Irwin offered a summary of the practical mode in which those of us who can see actually do. "If I want to go from here to the door," he explained, "certain pieces of information are critical to my getting there. Other pieces of information are peripheral." We edit out much, as Roger Fry argued, but what we do perceive serves as a foundation for getting to the door safely. Navigating the world in such a way demands constant recognition of and faith in the indexical relationships between the visual phenomena we see and the physical objects that are there. One builds this empirical confidence slowly with

<sup>77</sup> Ibid., §79. See also ibid., §41, 47, 95.

<sup>&</sup>lt;sup>78</sup> Lyn Blumenthal and Kate Horsfield, "On Art and Artists: Robert Irwin," video recording, 1976 (Chicago: Video Data Bank, School of the Art Institute of Chicago, 1978), at 21:35. See also Blumenthal and Horsfield, at 25:15; and Kate Horsfield, "On Art and Artists: Robert Irwin," *Profile* 2, no. 4 (July 1982): 9.

frequent repetition and reinforcement from infancy on—experiences the man born blind and made to see would not yet possess (and which Berkeley profoundly distrusted anyway).

For Berkeley, the notion that we can deduce how something is from how it looks remained in itself indefensible, and yet that initial premise undergirds an additional and even less tenable proposition. We casually assume that the indexical relationship between the visual and material in something we are seeing for the very first time approximates the analogous indexical relationship in what we have seen many times before. Put another way, once we understand how to interpret a particular situation, we extend that knowledge by applying it to other circumstances. Berkeley refused to accept the convenience of this assumption or its consistent practical results as evidence of veracity (time and again getting to doors safely, even in new spaces and on the first try). After all, for the man born blind and then allowed to see, thumbs still eclipse towers. This ineluctable conclusion informed Berkeley's overarching philosophical skepticism of perceptual experience. We have to rely on the senses to know the world, and yet the senses seem to be unreliable.

Peirce's analysis of visual phenomena and perception reworks what amounts to a fundamental shortcoming in Berkeley's theory. Consider how

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Chamberlain's paintings change color with the proximity and angle of one's viewing position. It is true that visual data often contradict reality: things appear to alter as we move around them or approach and retreat from them. Yet Peirce demonstrated how an indexical relationship exists all the same. There is "distance," as he put it, rather than equivalence on the one hand or utter incommensurability on the other, between how things look and how they are. One just has to figure out how to interpret the connection in order to translate apparent deformations back to their actual, material causes. In other words, a tall building does indeed appear small when a viewer stands far away. But whereas Berkeley concluded that such an image betrays the great height of the building, for Peirce, the image still constitutes an accurate index of—in that it is caused by—the building's remoteness from the eyes. Illusions remain indices of material characteristics, and ultimately things look the way they do because of the way they are.

Pinning down the indexical relationships between visual phenomena and their material causes seems to provide a satisfactory solution to Berkeley's skepticism of perception. Such findings can also guide us when we come upon other similar phenomena in the future. Developing and extending our experience of indexicality in this way amounts to a nexus of Peircean semiotics and the trial-and-error learning central to Gombrich's theory of perception. We come to

disregard the illusion of a broken straw in a glass of water, for instance, because whenever we lift one out, it remains unbroken. This particular instance of optical distortion becomes predictable and extendable: one expects a pencil in a glass of water, which looks somewhat like the straw, to demonstrate an analogous indexical relationship between illusion and reality. And so we make a quick inference about the material nature of the pencil—that it remains in one piece—based on an illusion that ostensibly contradicts this very conclusion. Our prior experience with and cognitive correction of broken straws trump the raw visual data before us. Moreover, if the straw or pencil looked broken and turned out to actually be broken when lifted out of the glass, the *absence* of incongruity would prove alarming because of our confident anticipation of it.

The connection between visual phenomena and material reality provided an area of intense investigation during the 1960s and 1970s. Postwar American artists were versed in the pictorial illusions of representational imagery. New nonfigurative paintings by Chamberlain and Irwin, and new nonfigurative objects by Bell and Judd, behave differently in front of the eyes and, consequently, necessitate new ways of seeing. One approach, a slow and arduous study, can help determine how exactly a surface's or a form's physical properties bring about the strange phenomena to be discerned in these artworks.

But this extreme initial effort only helps so much when viewing other pieces from the same time period or even by the same artist. Bell's assorted glass cubes share some general visual properties, such as their modulating sheen, their transmission and yet also reflection of ambient light, and their fusion of physical and reflected space. That being said, the particular manifestations of these phenomena thoroughly vary from one cube to the next (figs. 1.15, 1.16). Some reflect more, some less; how much they do skews one's conception of the physical space they enclose; this understanding in turn affects how weightless they seem to be (often: the brighter, the airier, the lighter—but not always so clean-cut). Some artists of the 1960s and 1970s made pieces in hopes of seeing unusual phenomena, of discovering and learning something new about the way things in the world can look. Accomplishing these goals often requires defiantly avoiding the efficiency of everyday vision and the extendibility of prior knowledge. When one manages to do so, extraordinary visual phenomena have a chance to register.

"My idea about art was that it was unprecedented knowledge,"

Chamberlain explained. "I make something [and] I really get the feeling that I haven't seen that before."

The knowledge Chamberlain refers to here is diverse, comprising both strictly physical behavior (such as light reflecting off lacquer

<sup>79</sup> Obrist, John Chamberlain, 90.

paint) as well as broader propositions (like the conflicting "senses of order, relative order and chance" that Judd saw in Chamberlain's pieces). Reperce's semiotics offers a method with which to both analyze the material properties and wider implications of artworks, as well as to refute Berkeley's philosophical skepticism of perception. Even in the case of illusions, scrutinizing phenomena reveals the physical, causal relationships between perceptions and percepts. It is indeed as if the former were a fragment torn from the latter. By spending more time looking, we enable ourselves to understand better the indexicality of each particular phenomenon we observe. Jumping to conclusions—either by neglecting sensations or by overextending previous knowledge—stymies such discovery.

## VII. Phenomenology: The Perceiving Body

Whereas semiotics is a philosophy and methodology that ultimately derives from a study of the functioning of language, phenomenology has a very different starting point—the human body. This change of perspective resulted in accounts that complicate understanding of how we observe the world. Perception, which had always implied a subject sensing qualities of an object, begins to

<sup>80</sup> Donald Judd, "Local History," *Arts Yearbook* 7 (1964): 35; and Donald Judd, "New York Letter," *Art International* 9, no. 3 (April 1965): 75.

<sup>&</sup>lt;sup>81</sup> Peirce, Collected Papers, 2:137.

appear as a more interactive and so-called "relational" activity. Matthew

Luckiesh, in *Visual Illusions: Their Causes, Characteristics, and Applications*(1922), studied how properties of visible objects such as hue and brightness exist in relation to the visual environment. We know color to be highly variable but we nevertheless have some sense of a norm for percepts we recognize, a fact that Arnheim and Gombrich considered in terms of the sunlit coal and shaded handkerchief. The arbitrariness of our conception of a chromatic identity—after all, Chamberlain's green lacquer painting continuously changes color with the daylight and with one's viewing angle—calls into question how we ever come to possess ostensibly accurate knowledge of the phenomena we observe. If perception involves one's body and all of our bodies differ, it would seem to follow that we must perceive incongruous phenomena.

Like Luckiesh, György Kepes argued in his 1944 "The Language of Vision" that most of us remain "object-minded" rather than "relation-minded" when we describe sensory phenomena and perception. 83 Kepes diverged from Luckiesh on other fundamental points, however. Kepes proposed the notion of a relational perception wherein vision is better thought of as a kind of synthesis

<sup>&</sup>lt;sup>82</sup> Matthew Luckiesh, *Visual Illusions, Their Causes, Characteristics and Applications* (New York, D. Van Nostrand Company, 1922). See also Gombrich, *Art and Illusion*, 52; and Arnheim, *Art and Visual Perception*, 305–14.

<sup>83</sup> Kepes, "The Language of Vision," 9.

between what you see and what you think you know about the thing seen. <sup>84</sup> For example, Kepes suggested that our experience of color has three parts: physical radiant light waves, data perceived by the eyes, and memories and expectations from past experience. <sup>85</sup> This complex interactivity recalls empiricist accounts of perception, specifically the cognitive interpretation of illusions that depend upon the role of trial-and-error learning. However, for Kepes, such past experience structures perception at least as much as sensation. His theory of perception attenuates the indexical connection between what one sees and what is there, suggesting the possibility of a predominant role for the perceiver's mind and body compared to that of the physical stimulus itself.

One crucial point to consider here is how we evaluate sensory experience as we look at and learn from art. Whether we consider perception to be rooted in objective observation of material or more as a relation between perceiver and percept, the risk of overlooking or mischaracterizing unprecedented visual phenomena remains. Empiricist accounts offer the advantage of correctibility, as Gombrich argued. Judd's brass and Bell's glass appear weightless until touched; Chamberlain's lacquer paint looks green until viewed from the side; the coal we guessed would appear black turns out to look white under the sun. We can

<sup>84</sup> Ibid., 68.

<sup>&</sup>lt;sup>85</sup> Ibid., 135.

remember and consider this new knowledge the next time we encounter similar circumstances. However, studying a percept, making discoveries, and learning from this experience is far less straightforward if we think of perception as relational. Of course, the usefulness or ease of one method versus another is no grounds for assessing veracity but the comparison does illustrate intriguing difficulties. If what we discern derives in large part from our mind and body, when is it wrong, when is it right, and how can we know? Indeed, these very questions seem to become inappropriate if perception is considered to be relational. Phenomenology can lead to discoveries about how our minds and bodies interact with art but those things remain unknowable in themselves.

In *Phenomenology of Perception* (1945), Maurice Merleau-Ponty offered a fully relational explanation of perception and phenomena by arguing the central role of the human body. <sup>86</sup> "Every external perception is immediately synonymous with a certain perception of my body," he argued, "just as every perception of my body is made explicit in the language of external perception." The phenomena we perceive cannot be detached from the conditions, both environmental and corporeal, under which we perceive them. Merleau-Ponty specifically criticized

<sup>&</sup>lt;sup>86</sup> Maurice Merleau-Ponty, *Phenomenology of Perception*, 1945 (Reprint, trans. Colin Smith, London: Routledge, 2000). The first edition imprint of this text is Maurice Merleau-Ponty, *Phénoménologie de la perception* (Paris, Gallimard, 1945).

<sup>&</sup>lt;sup>87</sup> Merleau-Ponty, *Phenomenology of Perception*, 206.

empiricist accounts that treat the perceiving subject as somehow objective and separable from the circumstances of the sensation. "Empiricists assume the existence of some external tower from which to perceive the world that in actuality exists around, in, and through them," he charged.<sup>88</sup>

Merleau-Ponty's ultimate conclusions resemble those of Berkeley's skeptical antirealism in a general sense, namely, that there is no being outside of being perceived (and, in the case of Merleau-Ponty, vice versa: there is no perceiving outside of being). The eyes, ears, skin, nose, and tongue are only "instruments of bodily excitation," Merleau-Ponty claimed, mere sensory organs that play no role in the cognitive processing of the phenomena they relay. But rather than arriving at a deep distrust of sensation as Berkeley had, Merleau-Ponty proposed a rethinking of the more traditional and straightforward notion that a subject perceives an object. He characterized perception as a "sympathetic relationship" between perceiver and percept. 90

Merleau-Ponty spent little space in *Phenomenology of Perception* addressing the various modes of perception or, more specifically, the differing levels of intensity with which one may see and the differing phenomena to which

<sup>88</sup> Ibid., 208.

<sup>&</sup>lt;sup>89</sup> Ibid., 214.

<sup>90</sup> Ibid.

one accordingly gains access. That such a distinction exists seems indisputable; sometimes we glance and sometimes we gaze. Twenty years before Merleau-Ponty's work, Roger Fry had enumerated four general categories ranging between the poles of sheer practicality and absolute aestheticism. <sup>91</sup> Twenty years after Merleau-Ponty's account (but roughly contemporaneous with its translation into English), Judd, Chamberlain, Irwin, Bell, and other artists of the 1960s and 1970s tested the empiricist position that the longer, closer, and more often you examine something, the more you will able to see of it and learn about it.

An analogous parsing of multiple modes of sight seems strange for Merleau-Ponty's notion of a relational perception. A significant role for the perceiving mind seems plausible in the case of a quick look, since one must form conclusions from a scant amount of visual data. However, *Phenomenology of Perception* implies that the more meticulously we examine an object, the more the resulting perception contains of our own creation of meaning. Inverting an empiricist axiom, phenomenology holds that the more we look at an object the more we end up seeing of ourselves. In this sense, Merleau-Ponty's phenomenological approach amounts to a metaphysical recasting of perception. As he argued, what an empiricist like Judd would characterize as an object's material reality is at least partially an emanation of himself. The phenomena we

<sup>&</sup>lt;sup>91</sup> Fry, Vision and Design, 48–51.

are able to perceive of ostensibly external artworks, people, and the world actually "exist . . . around, in, and through" the perceiver. 92

In undertaking his metaphysical critique of empiricism, Merleau-Ponty also made important contributions to such strictly physical analyses. After all, empiricist accounts of perception can be more complete and accurate when, in response to Merleau-Ponty's challenges, one considers experience in terms of the corporeal housing of the sensory organs and cognitive faculties. This notion of an empiricism imbued with phenomenology resembles the nascent philosophy one finds in Robert Irwin's writings and the full-blown discoveries one experiences in his art. We see and structure the world based on assumptions of what is and is not visually meaningful; however, by recalibrating our eyes we can begin to see the phenomena that normally escape notice. 94

Some commonality among other artists of the 1960s and 1970s consists in their shared interest in the body's role in seeing and sensory perception at large.

Art critics borrowed a precise philosophical term in dubbing such concerns

<sup>92</sup> Merleau-Ponty, *Phenomenology of Perception*, 208.

<sup>&</sup>lt;sup>93</sup> See Robert Irwin, "The Hidden Structures of Art," in Russell Ferguson, ed., *Robert Irwin* (Los Angeles: The Museum of Contemporary Art, Los Angeles, 1993); Irwin, "Introduction: *Change, Inquiry, Qualities, Conditional*"; Robert Irwin, "Some Notes on the Nature of Abstraction," in Calvin F. Nodine and Dennis F. Fisher, eds., *Perception and Pictorial Representation* (New York: Praeger Publishers, 1979); and Robert Irwin, "Notes Toward a Model," *Robert Irwin* (New York: Whitney Museum of American Art, 1977).

<sup>&</sup>lt;sup>94</sup> See especially Irwin, "The Hidden Structures of Art," and Irwin, "Notes Toward a Model."

"phenomenological," a looser but not incorrect adaptation. Like these writers, most artists did not embark on a rigorous study of Merleau-Ponty's philosophy (though Irwin, for one, did). Even so, the insistent physical presence of some works draws attention to the perceiving body and makes manifest the interactivity and relativity Luckiesh, Kepes, Merleau-Ponty, and others propounded. Eva Hesse's sinuous installations demarcate volumes within existing locations, surrounding and restricting entry into these newly-formed spaces (fig. 1.17). Lynda Benglis's poured latex works change the color, texture, height, and spatial flow of museums' logical parquet floors (fig. 1.18). And in Richard Serra's constructions, space feels dense and suffocating in the narrow gap between two planes of Cor-ten steel while, closer to their splaying ends, space lightens and opens up (fig. 1.19). Engaging with works by these artists requires physical participation—one has to walk around, in, through, and beside matter. While this fact is also true of much previous sculpture and even of painting, the tendency of pieces by Hesse, Benglis, Serra, and others to envelop the viewer demonstrates common ground in some art of the late-1960s and after. Before these overtly physical manifestations, Judd, Chamberlain, Irwin, and Bell investigated how perception depends upon a body in space experiencing visual phenomena.

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# VIII. Modernist Abstraction: Looking at Art Rather Than at the World

The complicated question of how perception of art and perception of the world relate and contrast appears repeatedly in twentieth-century art history. In some sense, conclusions on the topic were easier to formulate when doing so involved evaluating the world on the one hand and a naturalistic depiction of that world on the other. The fundamental material and visual differences between these two scenarios evince the distinct modes of vision we depend upon when seeing them. Nonfigurative imagery raised entirely new questions, however.

In the nineteenth and early-twentieth centuries, painters and sculptors including Turner, Manet, Monet, Rodin, Cézanne, Matisse, Kandinsky, Gorky, Malevich, Mondrian, and many others made works in which the goal of representing the world no longer seemed to be paramount. Instead, these artists created works that investigate a particular medium's material and visual qualities first and foremost. Accordingly, their pieces appeared more and more to be things among other things, and viewers began to look at these works as they would any other object in the world. The characteristic efficiency accompanying this mode of everyday vision often had the lamentable result of undermining the heightened attention, curiosity, and openness of aesthetic observation.

Artists in the 1960s and 1970s brought this paradox to a head. Works were intended to be of the world but were also intended to invite far more meticulous scrutiny than viewers were used to devoting to objects of the world. Judd, Chamberlain, Irwin, Bell, and several other artists working in the mid-twentieth century made pieces that demand a hybrid vision—a mode of seeing that even the artists themselves had to develop. In some respects, we need to look at such pieces as we do the world, examining them to discover their own visual properties as opposed to everything that they might resemble or evoke. And yet we also need to recalibrate this straightforward type of seeing to allow for considerable expenditures of time and effort so that we might see everything we can, instead of the customary practice of glancing here and there and moving on.

Wilhelm Worringer, in his *Abstraction and Empathy: A Contribution to the Psychology of Style* (1908), agreed with Riegl's 1901 argument that art history is the development of differing volitions concerning how to depict nature rather than a development of the technical ability to do so (say, with ever-increasing verisimilitude). Worringer theorized a connection between how a culture views the world and the degree of abstraction in the imagery it produces. An overall sense of confidence in and mastery over nature led to what Worringer called an

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<sup>&</sup>lt;sup>95</sup> Wilhelm Worringer, *Abstraction and Empathy: A Contribution to the Psychology of Style*, 1908 (Reprint, trans. Michael Bullock, London: Routledge and Kegan Paul Ltd, 1963), 9. The first edition imprint of this text is Wilhelm Worringer, *Abstraktion und Einfühlung; ein Beitrag zur Stilpsychologie* (München, R. Piper, 1908).

"urge to empathy" in the ancient Greeks, who made naturalistic art celebrating the world. <sup>96</sup> On the contrary, a general fear of and powerlessness in the face of nature caused the "urge to abstraction" among early cultures and the Egyptians, who eschewed naturalism. <sup>97</sup> These two differing volitions combined in the architecture of the Gothic style, Worringer maintained, since European cathedrals obey abstract structural laws but also demonstrate empathy in their spiritual and dramatic function. <sup>98</sup> Whereas Riegl and Worringer considered abstract art indicative of and caused by a culture's worldview, later art historians tended to see art as a largely autonomous and specialized activity: connections between a civilization's imagery and worldview may very well exist, but it is quite difficult to deduce one from the other.

Riegl's and Worringer's duality of depiction (or "empathy") and abstraction falls short when applied to particular artists and works of art rather than broad and necessarily vague summaries of a culture's visual production.

Larry Bell, Robert Irwin, and other artists throughout the twentieth century made abstract and nonfigurative art to see new phenomena, a pursuit for additional knowledge about the world based in a confident curiosity. That we do not know

<sup>&</sup>lt;sup>96</sup> Worringer, Abstraction and Empathy, 67, 102.

<sup>&</sup>lt;sup>97</sup> Ibid., 42–43. For the direct contrasts between Greek and Egyptian art, see ibid., 73, 88, 103, 114.

much about the world is a fact that inspired in Bell and Irwin a devotion to inquiry, not fear (as Worringer supposed that it did in the art of early cultures and of Egypt).

When looking at the world, we test our hypotheses of an object's material nature by moving around it, touching it, viewing it in different light conditions, and other strategies. <sup>99</sup> We thereby put our perceptual skills to the test, recognizing and correcting illusions while continually revising our understanding. Something similar but not exactly the same occurs when looking at paintings, and particularly when looking at nonfigurative works. The ability to test visual phenomena is curtailed since one generally does not touch paintings and cannot move around them to see their back (both actions serving as potentially decisive sources of information if one were to test the veracity of, say, a work's illusionistic space). Painted imagery thereby offers opportunities for an enduring visual ambiguity, both figurative and not so.

In Bell's paintings, a line may be painted or an actual edge; what appears to be a polygon could be a field of applied color or the contour of the support on the wall (fig. 1.20). This uncertainty whether such graphic elements are strictly visual or instead have physical depth momentarily stalls perception, requiring

<sup>&</sup>lt;sup>98</sup> Ibid., 48, 113–17.

<sup>&</sup>lt;sup>99</sup> See Robert Morris's discussion of these concepts in his "Notes on Sculpture, Part 3: Notes and Nonsequitors." *Artforum* 5 (Summer 1967): 24–29.

more intense study than usual. "A volume in a volume," as Bell put it, either painted or physical, time and again proves incompatible with our conception of a coherent space: the forms and their surrounds disobey the physical laws we have grown used to in everyday life, in depictions, and even in nonfigurative art. 100

Irwin made a series of paintings with a similarly mutable "sense of perspective" and "interplay" between horizontal lines on a brushy ground. <sup>101</sup> The slight disparity between the length of the various lines flickers into and out of recognition in *Crazy Otto* of 1962 (fig. 1.21). One gets the impression that the lines are equally long and located nearer and farther in space, as opposed to registering their actual co-planarity and minute differences in length. Other line paintings followed that, unlike those immediately before, had "no real figure-ground relationships" at all, causing one's eyes to become "suspended in the space between" lines (fig. 1.22). <sup>102</sup>

Bell's and Irwin's works stray from the visual phenomena one already knows, resembling neither real tridimensional space nor its common pictorial analogies such as figures on a ground. The spirit of investigation and

<sup>100</sup> Larry Bell, quoted in Melinda Wortz, "In Consideration," *Larry Bell: New Work* (Yonkers, N.Y.: The Hudson River Museum, 1980), 11.

<sup>&</sup>lt;sup>101</sup> Wight, "Robert Irwin," 26.

<sup>&</sup>lt;sup>102</sup> Blumenthal and Horsfield, at 9:30; and Wight, "Robert Irwin," 27–28. See also Horsfield, "On Art and Artists," 4.

experimentation one finds in these pieces—of proactive research into the unknown—demonstrates how Worringer's argument is in some ways overstated. Abstraction is not always an index of fear of nature. Quite the opposite in fact: abstract and nonfigurative works in the 1960s and 1970s demonstrated efforts to seek out, create, and undergo unfamiliar experiences.

Gombrich expressed similar sentiments. He enjoyed the complex interactivity and discovery involved in looking at paintings with abstracted imagery. Impressionist works, for instance, appealed to him because they require a viewer's participation. The lack of verisimilitude in the brushy, saturated colors forces one to engage prior cognitive and perceptual experience to complete the illusion, providing a taste of the artist's "thrill of creation," as Gombrich called it. Conversely, he held that a trompe l'oeil illusion can have at best a middling effect since a painted image is never really mistakable for the actual world and at the same time the viewer's prized participation is sacrificed. To bolster his claim with a canonical example, Gombrich praised Leonardo's *sfumato* technique for reducing the representational information available in the image and thereby stimulating the viewer to actively make sense of what he or she sees (fig. 1.23). 105

<sup>&</sup>lt;sup>103</sup> Gombrich, Art and Illusion, 202.

<sup>&</sup>lt;sup>104</sup> Ibid., 221.

<sup>&</sup>lt;sup>105</sup> Ibid.

Implicit in Gombrich's argument lies an aesthetic position that informed his wider art-critical judgments. Negotiating between Worringer's poles, Gombrich generally favored paintings that only approach realism, as opposed to truly nonfigurative imagery on one the hand and full verisimilitude on the other.

In a 1953 essay titled "The Eye is a Part of the Mind," Leo Steinberg offered a different take on nonfigurative art—he denied it exists. <sup>106</sup> Steinberg retained the notion of a development of volition from Riegl and Worringer, but specifically disagreed with Worringer's flipflopping dualism between abstraction and verisimilitude. Instead, Steinberg argued that the history of art can be viewed as a development of graphic symbols useful for conveying information about visual experience of the world. <sup>107</sup>

For Steinberg, the project of the avant-garde amounted to creating new representational languages in order to gain access to new realms of visual phenomena. Impressionism warrants attention, because it offered a symbolic language that enabled painters to depict attributes of reality unattainable in the pictorial styles that existed before. In this sense, Cézanne's paintings are more "realistic" than those preceding them, regardless of his imagery's superficial

<sup>106</sup> Leo Steinberg, "The Eye Is A Part of the Mind," 1953, *Other Criteria: Confrontations with Twentieth-Century Art* (New York: Oxford University Press, 1972), 291. This essay was first

published in Partisan Review 20, no. 2 (March-April 1953).

<sup>&</sup>lt;sup>107</sup> Steinberg, "The Eye Is A Part of the Mind," 293.

dissimilarity to the way the world looks. <sup>108</sup> By the same token, academic paintings contemporaneous with Cézanne's pieces are unworthy of consideration since their trompe l'oeil imagery remains a conventional symbolic language offering viewers no new visual phenomena or knowledge about the world. <sup>109</sup>

Steinberg also claimed that all art is representational in that all art represents visual experience in its own way. When one sees nonfigurative forms on the canvas, they are approximations of ideal forms to which we have imaginative, if not tactile, access. In other words, a referent still exists outside the nonfigurative painting's frame in the human mind. This precarious argument has several weaknesses. Steinberg depended upon the term "representation" having several meanings: an image of the visible world, a perfected image of the visible world (or an imperfect image of an invisible and perfect world), and an image of human emotion. The representation of actual light effects in Impressionism, the representation of perfected Christian essences in Byzantine art, and the representation of emotional states in abstract expressionism are too

<sup>108</sup> Ibid., 296.

<sup>&</sup>lt;sup>109</sup> Ibid., 294.

<sup>&</sup>lt;sup>110</sup> Ibid., 301.

different for the term "representation" to mean much if it is supposed to unite them, which Steinberg's argument attempts. 111

Before Steinberg, Barr had made a subtler perceptual distinction between "pure-abstraction" and "near-abstraction" in his 1936 essay for *Cubism and Abstract Art*. Pure-abstraction starts with a composition of nonfigurative elements such as geometrical or amorphous shapes whereas near-abstraction begins with natural elements that are transformed into abstract or nearly abstract shapes. Barr viewed pure- and near-abstraction as the two main trajectories of

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<sup>&</sup>lt;sup>111</sup> Ibid., 296, 298, 304. Steinberg was responding to a particular historical and art-historical moment. Even so, the premise that a referent exists outside all nonfigurative works seems counterintuitive at best and perhaps plainly wrong. Suprematist paintings by Kazimir Malevich in the 1910s and color-field works by Barnett Newman, Mark Rothko, Clyfford Still, and others in the 1950s demonstrate that there often are but need not always be symbolic, allusive, or illusionistic references at hand. And, of course, ten years after Steinberg's article, nonfigurative works in the 1960s by Jo Baer, Patricia Johanson, Agnes Martin, and others manifest a lack of reference as well. The visual and bodily experience of viewing works by these artists does not *refer* to the eyes and body; it simply assumes or requires them as the means of perception.

<sup>&</sup>lt;sup>112</sup> Alfred H. Barr, Jr., "Introduction [to *Cubism and Abstract Art*]," 1936, *Defining Modern Art: Selected Writings of Alfred H. Barr, Jr.*, eds. Irving Sandler and Amy Newman (New York: Harry N. Abrams, Inc., 1986), 85–86.

Apollinaire, Albert Gleizes, and Jean Metzinger who believed that certain cubist paintings approached what Barr termed pure-abstraction. Apollinaire's category of "Orphic Cubism," for instance, designated a pure style of painting wherein elements were entirely created by the artist rather than borrowed from the everyday world. Gleizes and Metzinger insisted that paintings were autonomous objects or so-called *tableaux-objets*: "A painting carries within itself its raison d'être. You may take it with impunity from a church to a drawing-room, from a museum to a study." And yet one finds that this rhetoric vacillates. Gleizes and Metzinger admitted that reminiscences to natural forms had not been "absolutely banished" in cubist imagery. Likewise, Apollinaire held that the cubists forswore "visual reality" but only in the name of depicting a transcendent "essential reality," which amounts to resemblance of a different sort. See Guillaume Apollinaire, *The Cubist Painters*, 1913 (Reprint, trans. Peter Read, Berkeley and Los Angeles: University of California Press, 2004), 11–12, 25; and Albert Gleizes and Jean Metzinger, "Cubism," trans. by

then-current avant-garde art, both of which emerged from impressionism.<sup>114</sup> Cézanne, Seurat, cubism, geometrical art, and constructivism exemplified the former trend; Gauguin, fauvism and Matisse, Kandinsky, and surrealism demonstrated the latter.<sup>115</sup> Most importantly, Barr described how advanced abstract paintings (both pure- and near-) confined one's visual attention to their immediate, sensuous, physical surfaces far more than a canvas of a sunset or a portrait.<sup>116</sup> In this sense, he explained, so-called "abstract" paintings are actually more concrete and literal than the trompe l'oeil in traditional representational

Robert L. Herbert, *Modern Artists On Art: Ten Unabridged Essays* (Englewood Cliffs, N. J.: Prentice Hall, Inc., 1964), 4–5, 7, 18, 25.

In a sense, such positions preserved a non-abstract, representational function for cubism, one upon which Daniel Henry Kahnweiler insisted in his *Rise of Cubism* of 1920. And Barr too argued that cubism avoided truly nonfigurative imagery to its benefit. Attaining it, he felt, would lead to great "impoverishment"—the loss of the sentimental, documentary, political, sexual, and religious meanings he found rewarding. See Daniel Henry Kahnweiler, *The Rise of Cubism.* 1920 (Reprint, trans. Henry Aronson, New York: Wittenborn, Schultz, Inc., 1949), 1, 13–14 (the first edition imprint of this text is Daniel Henry Kahnweiler, *Der Weg zum Kubismus* [München: Delphin-Verlag, 1920]; and Barr, "Introduction," 86.

<sup>&</sup>lt;sup>114</sup> Barr, "Introduction," 90–91.

<sup>&</sup>lt;sup>115</sup> Ibid., 85. Barr also likened other dualities to his central distinction. Pure-abstraction was intellectual, structural, architectonic, geometrical, rectilinear, and classical in its austerity and dependence upon logic and calculation; it suggested Apollo, Pythagoras, and Descartes. Near-abstraction, on the other hand, was intuitional, emotional, organic, biomorphic, curvilinear, decorative, romantic, mystical, spontaneous, irrational; it suggested Dionysius, Plotinus, and Rousseau.

<sup>116</sup> Ibid.

paintings—a notion echoed in Steinberg's assessment of Cézanne's work and repeatedly put forth by Robert Irwin. 117

Later writers on cubism like John Golding (in his 1959 *Cubism: A History and an Analysis, 1907–1914*) and Edward Fry (*Cubism,* 1966) argued that cubism's tense balance between nonfiguration and realism constituted one its great achievements. Gombrich agreed with this position, claiming that the "overt ambiguity" in cubist imagery was an "intrinsic property of abstract art." For Gombrich, the scattered representational hints in cubist paintings do not convey information about the depicted objects. Instead, the clues build tension by spurring our visual strategy of hypothesis and correction and yet always keeping a confident conclusion out of reach. In the end, a viewer recognizes the lack of realism and the defiant flatness of the bidimensional picture plane even though newspapers, wineglasses, and violins are plainly visible.

Gombrich evolved this thinking to account for the art of Jackson Pollock as well—demonstrating the link he theorized between early-twentieth-century

<sup>&</sup>lt;sup>117</sup> See Robert Irwin, audio recording, October [7], 2006, Chinati Foundation archives, Marfa, Texas, at 39:30; Robert Irwin, text of untitled lecture, *Art and Architecture* (Marfa, Tex.: The Chinati Foundation, 2000), 84; Irwin, "The Hidden Structures of Art," 26, 41; Irwin, "Introduction: *Change, Inquiry, Qualities, Conditional*," 15, 20; Irwin, "Some Notes on the Nature of Abstraction," 222–24; and Irwin, "Notes Toward a Model," 24.

<sup>&</sup>lt;sup>118</sup> John Golding, *Cubism: A History and an Analysis, 1907–1914*, 1959 (Reprint, Boston: Boston Book & Art Shop, 1968), 7, 33–34, 177, 185–86; and Edward F. Fry, *Cubism*, 1966 (Reprint, New York and Toronto: Oxford University Press, 1978), 20, 23–25, 28–30.

<sup>&</sup>lt;sup>119</sup> Gombrich, Art and Illusion, 286.

cubism and mid-century abstract expressionism (fig. 1.24). <sup>120</sup> He argued that action painting depends upon the failure of our usual visual strategy. We try again and again to unpack meanings and find representational clues in the skeins of paint since this deciphering is part of how we are used to looking at paintings. Only after such effort does it become clear that there is no illusionism in Pollock's strokes and drips; the skeins are only and wholly traces of the artist's creation. One has to look at the paintings for what they are, not what they suggest. Likewise, Judd, Chamberlain, Irwin, Bell, and other artists working in the 1960s and 1970s sought to keep attention focused on the unusual and ineffable visual properties of their works, those which resist definition in language and do not refer elsewhere through allusion and metaphor.

Barr's conclusion on this point in *Cubism and Abstract Art* is that "the abstract artist prefers impoverishment to adulteration." Artists of the 1960s and 1970s frequently had to defend their work against similar misreadings (though Barr had been mostly sympathetic). Irwin, for example, insisted that the "shapes, edges, corners, shadows, surface [and] textural changes" in one of his seemingly spare gallery installations (or even in any room in general) amount to immensely

<sup>120</sup> Ibid., 287.

<sup>&</sup>lt;sup>121</sup> Alfred H. Barr, Jr., "Introduction [to *Cubism and Abstract Art*]," 1936, *Defining Modern Art: Selected Writings of Alfred H. Barr, Jr.*, eds. Irving Sandler and Amy Newman (New York: Harry N. Abrams, Inc., 1986), 86.

complicated visual phenomena. 122 "If you were to take all those changes," he mused, "and put them into a painting, you'd have something very complex." 123 Judd pointed out the flawed logic involved in characterizing his own work and that of others by what it lacked:

You're getting rid of the things that people used to think were essential to art. But that reduction is only incidental. I object to the whole reduction idea, because it's only reduction of those things someone doesn't want. [. . .] If changes in art are compared backwards, there always seems to be a reduction, since only old attributes are counted and these are always fewer. 124

Describing artwork as abstract or reductive reveals an unfounded expectation of depiction of or allusion to something else. Judd and others wanted what he saw in Lee Bontecou's reliefs, "work so strong and material that it can only assert

<sup>&</sup>lt;sup>122</sup> Wight, "Robert Irwin," 110–11.

<sup>&</sup>lt;sup>123</sup> Ibid., 111.

<sup>124</sup> Dan Flavin, Donald Judd, and Frank Stella, "New Nihilism or New Art? Interview with Bruce Glaser," reprinted in James Meyer, ed., *Minimalism* (London: Phaidon Press Limited, 2000), 200; and Donald Judd, "Specific Objects," *Arts Yearbook* 8 (1965): 82. See also Bruce Glaser, "New Nihilism or New Art," audio recording, February 15, 1964 (North Hollywood, Cal.: Pacifica Radio Archives, Archive Number BB3394), at track 5; and Bruce Hooten, interview with Donald Judd, transcription, February 3, 1965 (Washington, DC: Archives of American Art), 3.

itself."<sup>125</sup> To achieve such pieces, artists of the 1960s and 1970s experimented with unfamiliar visual phenomena that in turn necessitated new ways of seeing.

### IX. Conclusion

Psychologists developed theories of perception and perceptual phenomena; philosophers interpreted the principles underlying these theories in their broader considerations of perception; and art historians, often interpreting the philosophers' interpretations rather than returning to the original psychological journals, applied the theories to viewing works of art. Over the course of this intellectual evolution and transmutation, core ideas remained. Gestalt approaches minimize experiential learning while other accounts (that I have loosely called "empiricist") maximize it. Semiotics answers skepticist doubt in sensory perception, particularly vision, by explaining the indexicality to be found in optical illusions. Phenomenology in turn emphasizes the relation between the perceiver and the perceived. Various thinkers juxtaposed their conclusions by studying common concepts like children's and so-called "primitive" art, optical illusions, and nonfigurative and representational imagery. Theories tended to differ by degree rather than clearly contradict prior models.

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<sup>125</sup> Donald Judd, "Lee Bontecou," Arts Magazine 39, no. 7 (April 1965): 20.

Most importantly, a prominent similarity becomes clear amid the perceptual experiments of Donald Judd, John Chamberlain, Robert Irwin, Larry Bell, and several other artists in the 1960s and 1970s. These painters and sculptors made works that bring about new visual phenomena and that demand a specialized mode of vision, a way of seeing that trades the utility and efficiency of everyday sight for a hypersensitive focus upon what is unusual and barely discernible. The payoff for the extreme amounts of time and effort required to observe artworks in this manner constitutes common ground as well. By engaging their paintings, objects, and spaces, one can gather new knowledge.

#### **CHAPTER 2**

# **Donald Judd on Optical Phenomena**

### I. Introduction: Judd as Critic

Unlike most artists, Donald Judd wrote a great deal of art criticism over the course of his career, and especially in the period from 1959 to 1975. His most well-known critical concept is the "specific object," which I describe and evaluate below. However, my principal aim here is to analyze another facet of Judd's writing on art, something he termed "optical phenomena." In this chapter, I follow the development of Judd's writing on the concept of optical phenomena—first, in paintings; next, in works using non-traditional materials and techniques; and, last, in works that Judd found strikingly new and interesting due to the intensity of their visual effects. I also assess the role of optical phenomena in Judd's own art and, finally, consider what contributions this art-critical concept might make to the formulation of the history and historiography of experiencing, describing, and thinking about works of art. Seeing the visual effects these pieces

<sup>126</sup> For related discussion and an earlier version of the argument put forward in this chapter, see Adrian Kohn, "Judd on Phenomena," *Rutgers Art Review* 23 (2007): 79–99.

bring about constitutes new knowledge. An unusually intense and seemingly impractical mode of perceptual examination leads to surprising discoveries.

Judd's 1964 essay "Specific Objects" probably remains his most well-known (fig. 2.1). <sup>127</sup> In it, he described new artworks characterized by, among other features, "a quality as a whole" instead of conventional "part-by-part structure," the "use of three dimensions" and "real space" as opposed to depiction, "new materials [that] aren't obviously art," and the unadorned appearance and "obdurate identity" of materials as they are. <sup>128</sup> Judd held that the "shape, image, color and surface" of these objects were more "specific," that is to say, "more intense, clear and powerful," than in previous art. <sup>129</sup> While these positions demonstrate Judd's subjective preferences as an artist and art critic, they also

<sup>&</sup>lt;sup>127</sup> See Donald Judd, "Specific Objects," *Arts Yearbook* 8 (1965): 74–82. Judd authored all sources in this chapter unless noted otherwise. In his 1975 collected writings, Judd indicated that he completed "Specific Objects" in 1964 and that it "was published perhaps a year after it was written." See "Introduction," *Complete Writings*, 1959–1975 (Halifax: The Press of the Nova Scotia College of Art and Design, 1975), vii.

The many reprints of "Specific Objects" in exhibition catalogues and in several arthistorical anthologies provide some evidence of its significance and continuing relevance to scholarship. See, for example, James Meyer, ed., *Minimalism* (New York: Phaidon Press Inc., 2000), 207–10; Kristine Stiles and Peter Selz, eds., *Theories and Documents of Contemporary Art: A Sourcebook of Artists' Writings* (Berkeley: University of California Press, 1996), 114–17; Charles Harrison and Paul Wood, eds., *Art in Theory, 1900–1990: An Anthology of Changing Ideas* (Cambridge, Mass.: Blackwell Publishers Inc., 1993), 809–13; Ellen H. Johnson, ed., *American Artists on Art from 1940 to 1980* (New York: Harper & Row, Publishers, 1982), 105–11; and Barbara Rose, ed., *Readings in American Art, 1900–1975*, rev. ed. (New York: Praeger Publishers, 1975), 178–79.

<sup>128 &</sup>quot;Specific Objects," 74, 78–80 (phrases reordered).

<sup>129</sup> Ibid., 78 (phrases reordered).

convey some of the wider debates driving American avant-garde art practices and criticism in the 1960s and 1970s, such as the supposed "insufficiencies of painting and sculpture" as mediums. As art historians, we tend to find such breadth appealing of course—sweeping statements bring retrospective order to what was actually haphazard and unruly. But Judd knew that one loses much in eliminating complexity for the sake of clarity. He emphasized this point in his earlier essay "Local History," so as to qualify his own general arguments (fig. 2.2). "The history of art and art's condition at any time are pretty messy." And, he declared, "they should stay that way." <sup>131</sup>

The hundreds of exhibition reviews and dozens of articles Judd wrote between 1959 and 1994 make up the sort of messy history he proposed. He saw things others missed when analyzing works by Lee Bontecou, Kazimir Malevich, Barnett Newman, Claes Oldenburg, and Jackson Pollock. Some of the other artists Judd favored contradict today's emerging canon of postwar art. For example, in

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<sup>&</sup>lt;sup>130</sup> Ibid., 74. Judd argued that "now [in 1964] painting and sculpture are less neutral, less containers, more defined, not undeniable and unavoidable. They are particular forms, circumscribed after all, producing fairly definite qualities. Much of the motivation in the new work is to get clear of these forms."

<sup>&</sup>quot;Local History," *Arts Yearbook* 7 (1964): 26. Judd railed against organizing art into styles since doing so means ignoring differences between individual works. "I've expected a lot of stupid things to reoccur—movements, labels," he claimed, "but I didn't think there would be another attempt to impose a universal style. It's naive and it's directly opposed to the nature of contemporary art." See "Complaints: Part I," *Studio International* 177, no. 910 (April 1969): 183. For related discussion, see also the previously unpublished "(Claes Oldenburg)," *Complete Writings*, 1959–1975, 191; a letter to the editor in *Arts Magazine* 38, no. 6 (March 1964): 7; "Local History," 26, 28, 35; and "French Masters of the Eighteenth Century," *Arts Magazine* 37, no. 7 (April 1963): 54.

1963 he proclaimed that "[Al] Jensen is great [and] is one of the best painters in the United States," as well as expressing his high regard for the work of Nina Kogan, Verena Loewensberg, Richard Long, John Wesley, and others who often do not appear in the twentieth-century survey texts (figs. 2.3–2.6). And Judd sometimes changed his mind. His esteem for Roy Lichtenstein's paintings and John Chamberlain's sculptures grew, while his early enthusiasm for Robert Rauschenberg's assemblages and Jasper Johns's paintings waned. Judd's empiricist worldview and concept of specificity recur throughout his writings, but, under their aegis, he appreciated many very different works of art. 134

On the whole, Judd's critical essays and reviews document the diverse trajectories of contemporary art. He believed the openness of his critical project contrasted with what he called the "little-league fascism" of writers like Michael

132 "Al Jensen," Arts Magazine 37, no. 7 (April 1963): 52. See also Richard Paul Lohse,

<sup>1902–1988 (</sup>Marfa, Tex.: The Chinati Foundation, 1988), 9; "Ausstellungsleitungsstreit," 1989, in Marianne Stockebrand, ed., *Donald Judd: Book One*, unpublished manuscript (Marfa, Tex.: Archives of Judd Foundation), 309; and "John Wesley," *Arts Magazine* 37, no. 7 (April 1963): 51.

<sup>&</sup>lt;sup>133</sup> Compare "Roy Lichtenstein," *Arts Magazine* 36, no. 7 (April 1962): 52–53 and "Roy Lichtenstein," *Arts Magazine* 38, no. 2 (November 1963): 32–33; "John Chamberlain," *Arts Magazine* 34, no. 5 (February 1960): 57 and "John Chamberlain," *Arts Magazine* 36, no. 6 (March 1962): 48; "Robert Rauschenberg," *Arts Magazine* 36, no. 4 (January 1962): 39–40 and "Robert Rauschenberg," *Arts Magazine* 38, no. 3 (December 1963): 60; and "Jasper Johns," *Arts* 34, no. 6 (March 1960): 57–58 and "Six Painters and the Object," *Arts Magazine* 37, no. 9 (May–June 1963): 108–9.

<sup>&</sup>lt;sup>134</sup> For a sense of the assorted art and designed objects Judd owned, see the reproductions of Todd Eberle's photographs in Renate Petzinger and Hanne Dannenberger, eds., *Donald Judd: Räume Spaces* (Wiesbaden, Germany: Museum Wiesbaden, 1993).

Fried and Clement Greenberg, whose accounts he saw as efforts to eliminate the natural variety and complexity of creative activity. While careful to acknowledge repeatedly the artificiality of the categories he himself put forward in "Local History," Judd nonetheless focused on two trends of contemporary art in this essay, suggesting that "three-dimensional work . . . approximating objects [on the one hand], and more or less geometric formats with color and optical phenomena [on the other hand] are a couple of the wider categories of new and interesting work." Judd positioned paintings with phenomena by Larry Poons, Ad Reinhardt, Frank Stella, and Neil Williams as a grouping parallel to the objects of Bontecou, Chamberlain, Oldenburg, H. C. Westermann, and others.

But this division between the two trends was "hardly definitive," as Judd made clear. <sup>137</sup> He addressed Stella's works twice in "Local History" since they fit both tendencies: the paintings are "slabs [that] seem like objects" (because of the notching and the nearly four-inch-thick supports) and yet Judd found that the successive painted angles—where the vertical lines jog in keeping with the

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<sup>135 &</sup>quot;Complaints: Part I," 183.

<sup>&</sup>lt;sup>136</sup> "Local History," 28 (supplemented for clarity). In this article, Judd's phrase "optical art" (35) overlaps but is not coextensive with Optical or Op art. See related discussion in the subsequent "Phenomena in Painting" section in this chapter.

<sup>&</sup>lt;sup>137</sup> Ibid., 35. Judd persistently qualified his classifications. "The two categories, objects and optical art, ... are far from being all of what is happening—and are hardly definitive," he affirmed. "A person could select other common elements which would make other groups. The proportion of things not in common far exceeds the things that are." See ibid., 28, 35 (phrases reordered).

shaped canvas support—create optical phenomena in the form of illusionary diagonals, which he described as "ambiguous, lively bands across the fairly impassive fields of parallel lines" (fig 2.7). <sup>138</sup> In fact, when looking at one of Stella's early paintings with aluminum, copper, or otherwise metallic paint, one often can perceive the optical illusion of different values where the lines make a ninety-degree turn even though the paint is uniform throughout the piece.

A year after "Local History," Judd's 1965 essay "Specific Objects" examined the provisional category with that same name in full detail. Judd never compiled an analogous summation for the other category of optical phenomena, however. Organizing the scattered references and considering art on the basis of this tentative classification might seem to clean up the mess he endorsed, but in fact the opposite is true. There is more to Judd's art criticism than specific objects. Reconstructing his analysis of phenomena offers one way to complicate how a major artist and critic understood art of the 1960s and after, which, above all, helps restore to postwar art history some of the variety and intricacy of the artworks themselves. One gains new knowledge about these works by looking closely and by paying attention to the visual phenomena they bring about.

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<sup>&</sup>lt;sup>138</sup> Ibid., 32, 35. Judd's various discussions of Stella's optical illusions remain ambivalent. Noticing that the adjacent angles in the stripe paintings seem to cohere into diagonals, Judd commented that "the sensation is optical and definite. The diagonals are free and electric in a static field." Two years later, though, Judd posited that Stella's "optical effects are occasional and not great." See, respectively, "Frank Stella," *Arts Magazine* 36, no. 10 (September 1962): 51; and "Julian Stanczak," *Arts Magazine* 39, no. 1 (October 1964): 68.

## II. Specificity, Multiplicity, Phenomena

A unique lexicon distinguishes Judd's writing. The best art is the most "interesting," and the most interesting art tends to be that in which the form, color, surface, space, and other "aspects" are "polarized" and "specific"—that is to say, jarring with but not counteracting one another. To state the idea a little too simply," Judd ventured, "the better the work, the more diverse its aspects." In accordance with this art-critical framework based on aspects, specificity, and interest, Judd named Pollock and Chamberlain among the best artists of their time. The multiple attributes in their works are as specific as possible since they remain either at odds or incommensurable. "Elements and aspects... are polarized rather than amalgamated," Judd remarked about Pollock's paintings (fig. 2.8). "A point of sensation, the immediacy of the dripped paint, is opposed to

<sup>&</sup>lt;sup>139</sup> On Judd's specialized use of the term "interest" in the behaviorist tradition of philosopher Ralph Barton Perry, see David Raskin, "Judd's Moral Art," in Nicholas Serota, ed., *Donald Judd* (London: Tate Publishing, 2004), 81–92. See also the discussion of multiplicity in Benjamin G. Paskus, "Donald Judd, *Complete Writings 1959–1975*," *Art Journal 36*, no. 2 (Winter 1976/1977): 174; and the analysis of polarization in Richard Shiff, "Donald Judd, Safe from Birds," in Serota, 48–58.

<sup>&</sup>lt;sup>140</sup> "Yale Lecture, September 20, 1983," *Res: Anthropology and Aesthetics* 7/8 (Spring/Autumn 1984): 153.

a volume of structural and imagistic forms."<sup>141</sup> He discerned a similarly stark multivalence in specific objects such as Chamberlain's crushed metal constructions (figs. 2.9, 2.10):

[There is a] three-way polarity of appearance and meaning, successive states of the same form and material. A piece may appear neutral, just junk, casually objective; or redundant, voluminous beyond its structure, obscured by other chances and possibilities; or simply expressive, through its structure and details and oblique imagery. 142

Pollock's paintings are at once immediate, structural, and imagistic;
Chamberlain's sculptures are neutral, redundant, and expressive. In these works,
Judd's concept of specificity entails multiplicity, several distinct and strong
aspects that do not blend together under a wider order or overarching unity other
than the artwork itself.

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<sup>&</sup>lt;sup>141</sup> "Jackson Pollock," *Arts Magazine* 41, no. 6 (April 1967): 34; and "Chamberlain: Another View," *Art International* 7, no. 10 (January 16, 1964): 39. Judd praised Chamberlain's sculpture in part by describing similarities to Pollock's paintings. In an earlier review, Judd argued that "Pollock achieves generality by establishing an extreme polarity between the simple, immediate perception of paint and canvas, a reduction to unexpandable sensation, and the complexity and overtones of his imagery and articulated structure. Such diverse elements combined under tension produce a totality much greater and unlike any of the parts." See "Helen Frankenthaler," *Arts* 34, no. 6 (March 1960): 55.

<sup>&</sup>lt;sup>142</sup> "Local History," 31. See also "Specific Objects," 82. Earlier, Judd wrote that "the work is in turn neutral, redundant and expressively structured.... Initially and recurrently the metal is neutral, pretty much something as anything is something. [Also,] the sculpture is redundant. There is more metal and space than the structure requires. [And yet,] when the structure is analyzed, much of that metal becomes expressive detail." See "Chamberlain: Another View," 39.

Beyond disparate visual and physical properties, Judd also appreciated referential aspects of specific objects. As long as such adulterating associations stayed polarized from other features, Judd himself commended the additional layer of possible interpretation, as with suggestions of "war [and] sex" in Bontecou's pieces and the unusually "extreme [...] anthropomorphism" of Oldenburg's works (figs. 2.11, 2.12). Judd could also appreciate art with recognizable imagery by Roy Lichtenstein, James Rosenquist, George Segal, and John Wesley, because they diverge from traditional illusionism. For example,

<sup>&</sup>lt;sup>143</sup> This response contradicted Alfred H. Barr's conclusion on the point three decades earlier in *Cubism and Abstract Art*, namely, his claim that "the abstract artist prefers impoverishment to adulteration." See Alfred H. Barr, Jr., "Introduction [to *Cubism and Abstract Art*]," 1936, *Defining Modern Art: Selected Writings of Alfred H. Barr, Jr.*, eds. Irving Sandler and Amy Newman (New York: Harry N. Abrams, Inc., 1986), 86.

Barr accepted but lamented what he saw as abstract art's elimination of the sentimental, documentary, political, sexual, and religious significance he prized. Mid-twentieth-century artists frequently found their work mischaracterized as "minimalist," "reductive," and other labels along these lines. Judd disputed the logic involved in characterizing his own work and that of others by what it lacked: "You're getting rid of the things that people used to think were essential to art. But that reduction is only incidental. I object to the whole reduction idea, because it's only reduction of those things someone doesn't want. [...] If changes in art are compared backwards, there always seems to be a reduction, since only old attributes are counted and these are always fewer." See Dan Flavin, Donald Judd, and Frank Stella, "New Nihilism or New Art? Interview with Bruce Glaser," reprinted in James Meyer, ed., *Minimalism* (London: Phaidon Press Limited, 2000), 200; and Donald Judd, "Specific Objects," *Arts Yearbook* 8 (1965): 82. See also Bruce Glaser, "New Nihilism or New Art," audio recording, February 15, 1964 (North Hollywood, Cal.: Pacifica Radio Archives, Archive Number BB3394), at track 5; and Bruce Hooten, interview with Donald Judd, transcription, February 3, 1965 (Washington, DC: Archives of American Art), 3.

<sup>&</sup>lt;sup>144</sup> "Lee Bontecou," *Arts Magazine* 37, no. 4 (January 1963): 44; and "Specific Objects," 82 (phrase reordered). On Bontecou, see also "Lee Bontecou," *Arts Magazine* 39, no. 7 (April 1965): 20. On Oldenburg, see also "(Claes Oldenburg)," 191; and Richard Shiff, "Judd through Oldenburg," *Chinati Foundation Newsletter* 9 (2004): 33–44.

<sup>&</sup>lt;sup>145</sup> Compare this fact of Judd's art criticism to Leo Steinberg's earlier 1953 claim that formalist critics tended to denigrate all representational concerns. See related discussion in the "Modernist

Judd wrote that Lichtenstein, by depicting comics and printed advertisements, "is representing this representation—which is very different from simply representing an object or a view" (fig. 2.13). A Rosenquist's subjects are "not depicted in a representational way, but are painted in a billboard technique" (fig. 2.14). Segal's plaster figures "seem both dead and alive, and the specificity of both aspects comes from the real space they occupy, their real size, their real appearance, their artificial material and the real furniture" (fig. 2.15). And Wesley's paintings do not show how things appear, "but what some bumpkin made of appearances for some unartistic reason. This is a big difference," Judd continued, "and is interesting—it is a sort of meta-representation" (fig. 2.16).

While such works remained exempt, more straightforward and traditional attempts at representation remained too corrupt for contemporary art, an opinion Judd shared in varying degrees with other critics, including Clement Greenberg, Michael Fried, Rosalind Krauss, and Barbara Rose. Judd concentrated on the

Abstraction" section in Chapter 1 above; as well as Leo Steinberg, "The Eye Is A Part of the Mind," 1953, *Other Criteria: Confrontations with Twentieth-Century Art* (New York: Oxford University Press, 1972), 295. This essay was first published in *Partisan Review* 20, no. 2 (March–April 1953).

<sup>&</sup>lt;sup>146</sup> "Roy Lichtenstein" (1963), 32.

<sup>&</sup>lt;sup>147</sup> "Young Artists at the Fair and at Lincoln Center," *Art in America* 52, no. 4 (August 1964): 117. (Philip Johnson seems to have composed the introduction to this article, but Judd, uncredited, wrote the brief entries for each participant. See *Complete Writings*, 1959–1975, 130–31.)

<sup>148 &</sup>quot;Local History," 32.

<sup>&</sup>lt;sup>149</sup> "John Wesley," 51.

philosophical implications of making representational imagery, asserting that "the depiction of [a] volume requires a unified, illusionistic space [that] signifies a unified and idealistic world." This was a world that Judd's empiricism had convinced him did not actually exist. Writing on Walter Murch's paintings, he complained that "it is necessary to believe that the painted objects are so important that the composition and the color must not violate their integrity." This notion of an inviolable integrity implied a false view of reality to Judd, namely the idea that "objects have essences" and that "the world has a spiritual order, part and whole" (fig. 2.17). <sup>151</sup> In paintings, such as those by Matisse and Mondrian, color should freely violate the integrity of objects that it does not transgress in the actual world, the reason being that a painted image of an object is very different from and is in no way obliged to the material object it ostensibly depicts.

Even so, Judd knew giving up traditional depiction was risky. Imitation of real things and spaces amounts to an entire realm of meaning in painting and sculpture—no matter how false Judd and other artists, critics, and historians found its use in postwar art. Judd even proposed that illusionistic representation is painting's primary mode of significance—its "main purpose"—which, as an

<sup>&</sup>lt;sup>150</sup> "George Segal," *Arts Magazine* 36, no. 10 (September 1962): 55. For related discussion, see also "Malevich: Independent Form, Color, Surface," *Art in America* 62, no. 2 (March–April 1974): 57.

<sup>151 &</sup>quot;Walter Murch," Arts Magazine 37, no. 5 (February 1963): 46.

inherent characteristic, constituted an indefensible compromise in his opinion. To preserve complexity and sustain interest without traditional representation, Judd recognized "a need for something complicated and ambiguous but, unlike imitated space, actual and definite." Bontecou's violence and carnality, Oldenburg's gross simulacra, and Wesley's "meta-representation" filled the void. Another possibility Judd considered was "color and optical phenomena."

Defining phenomena, as Judd understood the term, is tricky. Judd seems to have meant real optical illusions that everyone sees, such as retinal afterimages, one hue modifying those adjacent, the chromatic depth of pushing and pulling colors, and many other puzzling sights that result from an extended examination of numerous twentieth-century artworks. Judd called these illusions "absolutely objective" and "perfectly matter-of-fact" because they occur through direct visual experience as opposed to learned pictorial devices, such as the perspective and modeling he criticized in Walter Murch's paintings. <sup>155</sup> Unlike illusionism,

<sup>&</sup>lt;sup>152</sup> "Anything placed in a rectangle and on a plane suggests something in and on something else, something in its surround, which suggests an object or figure in its space, in which these are clearer instances of a similar world—that's the main purpose of painting." See "Specific Objects," 77.

<sup>&</sup>lt;sup>153</sup> "Local History," 34–35.

<sup>&</sup>lt;sup>154</sup> Ibid., 35.

<sup>&</sup>lt;sup>155</sup> Some Aspects of Color in General and Red and Black in Particular (Sassenheim, Netherlands: Sikkens Foundation, 1993), 16; and Judd in Barbara Rose, et al., "Is Easel Painting Dead?" symposium transcript, November 1966, New York (Washington, D.C.: Barbara Rose Papers, Archives of American Art), 33.

illusions are not pictorial artifice. <sup>156</sup> For example, Judd cited Josef Albers' volume *Interaction of Color*, which he had reviewed for *Arts Magazine* in 1963: "Albers says to paste a red circle and a white circle on a black sheet of paper and then stare at the red circle. Then, look at the white circle: it is green or blue-green, the complementary of red" (fig. 2.18). <sup>157</sup> The reality of the white belies the illusion of green, and yet the sensation of hue is real too, a perceptual phenomenon that is neither imagined nor mistaken and, as such, counts as new and peculiar discovery. The illusion of white appearing green met Judd's criteria for optical phenomena—complicated and ambiguous, but actual and definite.

# III. Phenomena in Painting: Josef Albers, Larry Poons, Victor Vasarely

Albers' paintings demonstrate how phenomena fit into Judd's art-critical model (fig. 2.19). Illusions Judd saw in the *Homage to the Square* paintings, such

 $^{156}$  Richard Shiff reintroduced this distinction: "Illusion [is] a natural condition of vision, a physiological fact; illusionism [is] a constructed effect for the pictorially indoctrinated.... Illusion is the way things are. Illusionism is the way things are not." See Shiff, "Donald Judd, Safe from Birds," 41–42.

<sup>&</sup>lt;sup>157</sup> Some Aspects of Color, 16. See Josef Albers, Interaction of Color (New Haven: Yale University Press, 1963), 30 of the "Text," 18 of the "Commentary," and Plate VIII-1. Judd also claimed in Some Aspects of Color that "color as knowledge is very durable. I find it difficult, maybe impossible, to forget" (16). Indeed, he had used the same example thirty years earlier in his review of Albers' study. "When you look at the white circle after staring at the red one, it flushes a light, intense cerulean blue," he reported. See "Interaction of Color by Josef Albers," Arts Magazine 38, no. 2 (November 1963): 67. Judd's library, housed in the west building of The Block in Marfa, Texas, includes the 1963 first edition of Albers' Interaction of Color.

as "one color altering another" and other kinds of "actual change in a color throughout an area," constitute one of several specific aspects in these pieces. 

Judd described the way in which *Homage to the Square: At Sea B 1964* (1964) has a central square of "more or less zinc yellow" surrounded by a band of "light-yellow-green gray," itself encircled by another band of "light gray." 

He noticed that the inner yellow causes the adjacent light-yellow-green gray to appear simply gray. However, the outermost light gray looks more yellow-green than if seen in isolation. The center changes too. Judd observed that "[each] color varies according to the colors surrounding it[,] and it also has an identity as a changed color." 

These strange visual effects take time to develop as one studies the painting. The colors will seem static with just a quick glance. However, as one continues to look intently at the painting, inspecting where and how one color adjoins the next, inching inward from the edges and then outward from the center,

<sup>&</sup>lt;sup>158</sup> "Josef Albers," *Arts Magazine* 37, no. 7 (April 1963): 54; and "Josef Albers," *Josef Albers* (Marfa, Tex.: The Chinati Foundation, 1991), 25. Judd owned a number of works by Albers, including two *Homage to the Square* paintings from 1958 and 1963, another 1958 oil on fiberboard painting, artist's proofs of two 1964 prints *Midnight and Noon III* and *Midnight and Noon VI*, a 1967 set of screenprints titled *Ten Variants*, a 1971 screenprint *I-S LXXI a*, a 1971 set of inked aluminum plates called *White Embossings on Gray: Seven Plates*, and a 1972 two-volume portfolio of prints titled *Formulation : Articulation*. Craig Rember, Judd Foundation, statements to author, March 10, 2007. See also *Prints and Multiples, Tuesday* 26 September 2006, *Wednesday* 27 September 2006 (New York: Christie's, 2006), 45–46, lots 240, 243; and *Prints and Multiples, Monday* 1 May 2006, Tuesday 2 May 2006 (New York: Christie's, 2006), 155–56, lots 374, 376.

<sup>159 &</sup>quot;Josef Albers," Arts Magazine 39, no. 2 (November 1964): 60.

<sup>&</sup>lt;sup>160</sup> "Josef Albers" (1991), 24.

the puzzling ambiguity of the hues—especially that of the vigorous yellow—becomes easier to discern.

These chromatic phenomena modify the sequential transition between hues, a second attribute Judd identified, which produces a wholly optical and non-imitative space. As he explained, stepwise modulation in "either color or value or both at once" introduces undulating optical illusions of surface "flatness and stability [but then] recession and projection." Albers initiated a third aspect, which Judd called variable color "texture" and "luminosity," by scraping some of the painted bands to expose the underlying coarse and bright white fiberboard. And the paintings' geometric layouts function as a fourth quality. Judd noted that each band's single hue diverges into "three different colors" through its shifting dimensions, intensity, and position—narrowest and most brilliant at the bottom, wider and more moderate along both sides, and broad and subdued on top. It is a "lambent geometry," he announced. Contradictory characteristics such as the "unbounded color" and "rigid . . . geometry" vivify rather than compromise one

<sup>&</sup>lt;sup>161</sup> "Josef Albers" (1963), 54.

<sup>&</sup>lt;sup>162</sup> "Josef Albers," Arts 34, no. 3 (December 1959): 57; and "Josef Albers" (1991), 23–24.

<sup>&</sup>lt;sup>163</sup> "Josef Albers" (1991), 24; and "Josef Albers" (1963), 54.

<sup>&</sup>lt;sup>164</sup> "Josef Albers" (1959), 56. See also "Josef Albers" (1963), 54. Thirty years later, Judd acknowledged that "I always admired Albers' paintings; I've never otherwise used the word 'lambent.'" See "Josef Albers" (1991), 21.

another, and this makes for multifaceted, interesting art. Albers' color phenomena of fluctuating yellows and grays coexist with contrasting chromatic ranges, oscillating surface frontality, and assorted textures and opacities, all within a fixed format. Or, in Judd's sometimes elliptical language, "the work . . . presents a conception of multiple distinctions within a single context, itself in turn manifold." By engaging Albers' painting with a heightened mode of visual attention, a viewer can discover these unaccustomed perceptual phenomena and formulate new knowledge about the piece.

Curator William C. Seitz heralded the art of phenomena with The Museum of Modern Art's 1965 blockbuster exhibition "The Responsive Eye." He selected for display 123 pieces by ninety-eight artists and collectives from nineteen countries, anchored by "best-known masters" Albers and Victor Vasarely (fig. 2.20). 167 Judd complained that this breadth collapsed separate categories of phenomena. Seitz was "gathering everything at all allied, from [Neil] Williams' work, which is somewhat involved, through Stella's, where optical effects are occasional and not great, to plain hard-edge, in which color may vibrate along a

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<sup>&</sup>lt;sup>165</sup> "Josef Albers" (1959), 56. Summing up his first review of Albers' pieces, Judd wrote that the "unbounded color and the final disparity [of each colored area] belie the apparent rigidity of the geometry and provide the central lyric and exultant ambiguity of the painting."

<sup>&</sup>lt;sup>166</sup> Ibid., 57.

<sup>&</sup>lt;sup>167</sup> William C. Seitz, "Acknowledgements," *The Responsive Eye* (New York: The Museum of Modern Art, 1965), 3.

juncture."<sup>168</sup> These were distinctions Judd insisted on upholding. "Optical effects are one thing, a narrow phenomenon," he maintained, "and color effects are another, a wide range."<sup>169</sup> This statement was Judd's only mention of the distinction he conceived between optical effects and color effects. Albers' paintings perhaps exemplify the wide variety of aspects Judd saw as originating from color effects. Narrow optical effects seem to include illusions that may not arouse much curiosity when presented alone. For example, Judd compared pieces by Larry Poons and Swiss artist Karl Gerstner (figs. 2.21, 2.22). Afterimages from Poons' paintings "are a phenomenon . . . but they are much besides"; the wavy distortion of moiré patterns in Gerstner's works remain just a phenomenon, which was not enough for Judd. <sup>170</sup>

Further examination of the differences between color effects and optical effects clarifies Judd's praise for the perceptual phenomena in Poons' work in contrast to his dismissal of most Op art.<sup>171</sup> He asserted that Poons' painting was

<sup>&</sup>lt;sup>168</sup> "Julian Stanczak," 68. Judd himself grouped Stella and Williams along with Larry Poons and Ad Reinhardt in "Local History," yet took care to emphasize the many differences between their paintings and the provisional nature of his categories. See "Local History," 35. Presumably, The Museum of Modern Art had released a list of exhibiting artists ahead of time since Judd criticized "The Responsive Eye" months before the show opened on February 23, 1965.

<sup>169</sup> Ibid.

<sup>&</sup>lt;sup>170</sup> "Karl Gerstner," *Arts Magazine* 39, no. 6 (March 1965): 60; and rephrased in "New York Letter," *Art International* 9, no. 3 (April 1965): 77.

<sup>&</sup>lt;sup>171</sup> Judd believed that the possibility of "doing first-rate work sometime ... is beyond ninety-five percent of the optical artists." See "New York Notes," *Art International* 9, no. 4 (May 1965): 65. In repudiating "optical art" here, Judd seems to defer to the popular usage of that term with which

"the only thing new [because] it's more than afterimages" and so located the work's "affinities . . . with the best American art and not with optical art." Only pieces with several attributes, some broader than visual phenomena and requiring interpretation, seemed to keep Judd interested. Reminiscent of his meticulous description of Albers' *Homage to the Square*, Judd studied the "definite [. . .] polka dots" in Poons' paintings, then their "transitory [. . .] afterimages," both one by one and as a "whole pattern"; next he considered the dots' "sparse and somewhat casual and accidental, and yet seemingly controlled" arrangement; finally, he contemplated wider philosophical propositions in the conflicting "senses of order, relative order and chance." It takes quite a while to look at Poons' paintings," he affirmed.

Whereas Poons used phenomena well in Judd's opinion—as one specific aspect among others—Victor Vasarely did not. Conventional easel techniques such as part-by-part balancing constrain phenomena in his paintings. "The color effects are interesting," Judd acknowledged, but for Vasarely "they're never enough, and he has about three or four squares, one slanted or tilted inside the

he disagreed elsewhere: "There have been a lot of shows of optical work lately, at least ones called that by the galleries." See "New York Letter," 75.

<sup>&</sup>lt;sup>172</sup> "New York Letter," 75 (phrases reordered).

<sup>&</sup>lt;sup>173</sup> "Local History," 35 (phrases reordered); and "New York Letter," 75.

<sup>174 &</sup>quot;New York Letter," 75.

other and this is all arranged. [That] is about five times more composition and juggling than he needs" (fig. 2.23). <sup>175</sup> An overall equilibrium and uniformity prevail and, in Judd's estimation, the work suffers. Again, Poons served as the standard of comparison. "Vasarely's paintings are full of interesting effects but they usually cancel out," Judd objected. "Any one of them, used powerfully and complexly, as Poons uses his means, would be enough." <sup>176</sup> Judd felt that, unlike Poons, Vasarely tinkered with, composed, and in so doing depleted the otherwise intriguing optical phenomena in his paintings. Vasarely's familiar compositional techniques allowed him and other viewers to rely on familiar ways of looking at and thinking about the paintings. The promise of a new visual language, as Steinberg may have put it, went unfulfilled. <sup>177</sup>

<sup>&</sup>lt;sup>175</sup> "The Classic Spirit in Twentieth-Century Art," *Arts Magazine* 38, no. 7 (April 1964): 28; and Judd in Bruce Glaser, "New Nihilism or New Art," audio recording, February 15, 1964 (North Hollywood, Cal.: Pacifica Radio Archives, Archive Number BB3394), at track 2, 8:25. See also "Victor Vasarely," *Arts Magazine* 38, no. 9 (May–June 1964): 31. Caroline Jones first cited the audio recording of Glaser's interview in *Machine in the Studio: Constructing the Postwar American Artist* (Chicago: The University of Chicago Press, 1996), 415, n. 152.

<sup>&</sup>lt;sup>176</sup> "New York Letter," 75. Judd made the same comparison a year earlier: "[In] two paintings by Vasarely ... the color effects are interesting and certainly not classical. The classical composition, the tilted squares and their relation to the straight ones, is a nuisance. Larry Poons' painting is an alternative; the optical effects are more independent." See "The Classic Spirit in Twentieth-Century Art," 28. These two reviews from 1965 and 1964, respectively, demonstrate that Judd changed his thinking from a January 1962 account, in which he concluded that "Vasarely's work has an immediacy and rigor much needed now." See "Victor Vasarely," *Arts Magazine* 36, no. 4 (January 1962): 33. While Judd had several works by Albers, he owned nothing by Poons or Vasarely. Craig Rember, Judd Foundation, statements to author, February 8, 2007.

<sup>&</sup>lt;sup>177</sup> Steinberg, "The Eye Is A Part of the Mind," 291.

Waning confidence in the very practice of painting underlay Judd's account of perceptual phenomena. In an otherwise favorable 1963 review of pieces by Kenneth Noland, whom he rated "one of the best painters anywhere," Judd faulted the medium itself (figs. 2.24, 2.25). "Painting now is not quite sufficient," he declared, "although only in terms of plain power. It lacks the specificity and power of actual materials [since, in a painting, paint is an applied material, a superficial skin], actual color and actual space." While Judd wrote in 1965 that Poons' paintings attest to a powerful and complex handling of optical effects, he tempered this earlier praise in a 1966 symposium. "I believe something of the order that Larry has in his paintings, but I disbelieve the kind of illusionism," Judd stated. "If you are going to use just an optical effect, it has to be made so definite that you don't have an illusionistic surface[,] so that you don't somehow destroy the surface you are working on." 179

But, according to Judd, no painter had ever eliminated all spatial illusion, be it a traditional representation of tridimensional space or even the optical space

<sup>&</sup>lt;sup>178</sup> "Kenneth Noland," *Arts Magazine* 37, no. 10 (September 1963): 53. Judd also held that most paintings amalgamate different attributes rather than keeping them specific and polarized. "There's a gradation or evening out of the parts and aspects," he argued. "The quality always has something of moderation, the long view and the unity of all things. By now this kind of resolution seems easy and also untrue." See "Jackson Pollock," 34.

<sup>&</sup>lt;sup>179</sup> Judd in Rose, et al., "Is Easel Painting Dead?" 31–32 (phrases reordered).

that often results from chromatic and formal interplay. <sup>180</sup> Art critic Barbara Rose asked him during the same roundtable, "Do you think there is such a thing as a flat painting?" He answered, "No, there isn't, so far. I think it's probable that someone will manage to make one . . . but so far, no one has." <sup>181</sup> Judd confirmed that his opposition to painting was not "retroactive," as he put it; he still thought of Barnett Newman as "one of the world's best artists" and regarded Pollock "a greater artist than anyone working at the time or since." <sup>182</sup> And while Judd posited that paintings by Vasarely did not make the most of optical phenomena, works by Albers and Poons by and large did. Beyond these exceptions, however, Judd's wider criticism of painting implied that new phenomena required new mediums. If perceptual effects constitute an untapped realm of interesting experience—and

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<sup>&</sup>lt;sup>180</sup> See Clement Greenberg, "Modernist Painting," Forum Lectures (Washington, D.C.: Voice of America, 1960); Clement Greenberg, The Collected Essays and Criticism, 4 vols., ed. John O'Brian (Chicago: University of Chicago Press, 1986–93); Michael Fried, Three American Painters: Kenneth Noland, Jules Olitski, and Frank Stella (Cambridge, Mass.: Fogg Art Museum, 1965); and Michael Fried, Art and Objecthood: Essays and Reviews (Chicago, University of Chicago Press, 1998).

<sup>&</sup>lt;sup>181</sup> Rose and Judd in Rose, et al., "Is Easel Painting Dead?" 30. Judd's response differs from and presumably rectifies earlier comments on Al Jensen and Yves Klein (which also seem contradictory in themselves). He had claimed that "many of Jensen's paintings are thoroughly flat .... There are no other paintings completely without space," but also that "almost all paintings are spatial in one way or another. Yves Klein's blue paintings are the only ones that are unspatial." See "Al Jensen," 52; "Local History," 34; and "Specific Objects," 76.

<sup>&</sup>lt;sup>182</sup> "Specific Objects," 75; "Barnett Newman," *Studio International* 179, no. 919 (February 1970): 67; and "Jackson Pollock," 34. Although first published in 1970, Judd completed his essay on Newman in November 1964. See "Barnett Newman," 67.

therefore the kernel of a new kind of visual practice—artists should not feel beholden to use oil paint and canvas.

IV. New Phenomena: Karl Gerstner, Gerald Oster, Groupe de Recherche d'Art Visuel

Judd made striking predictions about phenomena in his reviews for the March 1965 *Arts Magazine* and the April 1965 issue of *Art International*.

Assessing optical effects created by the constructions of Karl Gerstner, American artist-physicist Gerald Oster, and the Parisian collective Groupe de Recherche d'Art Visuel (GRAV), he asserted that "something may be done with the phenomena which will replace present art [and] start . . . what will be an important kind of art." Experimental materials yield unusual visual effects in these artists' works. Concave and convex Plexiglas lenses alter the appearance of black and white concentric circles in Gerstner's "lens pictures" (fig. 2.26). The compound curvature of each lens gives rise to several layers of moiré distortion, which Judd meticulously detailed:

One sequence produced by an indented lens over the concentric lines, seen dead on, is, from the center, a band of fine,

<sup>&</sup>lt;sup>183</sup> "New York Letter," 77; and "Karl Gerstner," 59–60 (phrases reordered). Judd did not own works by Gerstner, Oster, or GRAV. Rember, statements to author, February 8, 2007.

progressively wider lines, a colored moiré pattern, a spiral set of larger, also progressively wider lines, another and larger moiré, and around the circumference, a third moiré, still larger and, like the first one, colored.<sup>184</sup>

Oster's pieces bring about similar visual phenomena. In *Conic Section II* (fig. 2.27), a pane of glass with radiating concentric rings superimposed over another pane with thin horizontal stripes causes the eyes to see—and a camera to register—vertical moiré patterns. A complementary work's rings and verticals generate "horizontal moiré." Reporting on GRAV's first exhibition in the United States, Judd wrote that a "four-foot ball of aluminum rods" by fellow member François Morellet "opens and closes according to the angle from which it is seen" (fig. 2.28). A wall piece with plastic tubing by Yvaral "produces a moiré haze . . . [that is] dizzying, impenetrable, recondite" (fig. 2.29). For Judd, the moiré and other real visual effects made possible by these mediums had the potential to surpass the complication, ambiguity, actuality, and definiteness of painted color effects. Phenomena can only be so strong when arising from paint

<sup>&</sup>lt;sup>184</sup> "Karl Gerstner," 60; and repeated in "New York Letter," 77.

<sup>&</sup>lt;sup>185</sup> "Gerald Oster," *Arts Magazine* 39, no. 6 (March 1965): 65; and repeated in "New York Letter," 77.

<sup>186 &</sup>quot;Groupe de Recherche d'Art Visuel," Arts Magazine 37, no. 5 (February 1963): 45.

<sup>&</sup>lt;sup>187</sup> "New York Letter," 77; and "Groupe de Recherche d'Art Visuel," 45.

on canvas, and these new materials promised increased intensity. In addition, the way in which one views most paintings is liable to enervate an encounter with exotic visual stimuli; the unfamiliarity and unpredictability of innovative materials imply the necessity of extraordinarily attentive observation from the very start.

Gerstner, Oster, and GRAV fabricated pieces with much potential in Judd's opinion, though also many shortcomings. New phenomena did not guarantee innovative art or unusual knowledge. In his review of Oster, Judd submitted that "oil paint and description are at least obsolescent. Obviously the old painting is being replaced by the use of specific materials, forms and phenomena." In spite of the alleged obsolescence of old representational techniques, Judd granted that the most advanced nonfigurative painting still outstripped works by Gerstner, Oster, and GRAV. He felt they had not mastered their medium or maximized its visual possibilities as Albers and Poons had theirs. The fresh ways of seeing that new uses of phenomena entailed were as yet unrealized.

"The use of this kind of phenomena, the way in which it will be good art, is going to be one of the big problems," Judd warned. 189 For instance, he felt that

<sup>188 &</sup>quot;Gerald Oster," 65; and rephrased in "New York Letter," 77.

<sup>&</sup>lt;sup>189</sup> Ibid.

works by GRAV member Francisco Sobrino, despite their shimmering reflections and otherwise changeable visual phenomena, retained "too much of the old compositional structure," that is to say, both conventionally anthropomorphic (as opposed to Oldenburg's "unusually extreme" anthropomorphism) and too harmonious with an overarching order governing the arrangement of many small parts (fig. 2.30). <sup>190</sup> Both Gerstner's and Oster's constructions were too small, suggesting defunct easel painting rather than vying with large avant-garde canvases (fig. 2.31). "One thing necessary is size, scale," Judd insisted. <sup>191</sup> As with Vasarely's paintings, he determined that features borrowed from older art lingered on, generalizing distinct qualities and undermining innovative materials and the unfamiliar phenomena they brought about. One could keep looking at these pieces as one had always looked at art before.

Because Gerstner, Oster, and GRAV exhibited their creations as visual art, Judd believed they were obligated to contend with prior pioneering sculpture and painting. In his judgment, they neglected this responsibility. "Oster is presenting the phenomenon [of moiré]," Judd acknowledged, "but otherwise his work doesn't have much to do with the problem, which especially involves what has been done so far, and the best art generally. [This] means mostly that the art is

190 "New York Letter," 77.

<sup>191 &</sup>quot;Karl Gerstner," 60. See also "Gerald Oster," 65; and "New York Letter," 77.

old."<sup>192</sup> He noted a similar flaw in GRAV's pieces. "The primary fault of the group is that they consider themselves to be working within a certain tradition and philosophy, one which is self-contained," Judd stated. "Their work, however . . . is necessarily measured against anything that is art, that is interesting to look at."<sup>193</sup>

To emphasize his point, Judd compared GRAV to both Piet Mondrian and Yves Klein, the sort of juxtaposition with the best previous art that he felt the group had overlooked. Judd found the implications of Klein's blunt and uncomposed monochromatic blue paintings more credible than the "idealistic, rationalistic[,] universalizing" philosophy and "fixed platonic order" invoked by Mondrian's balancing of regular forms and primary colors (figs. 2.32, 2.33). <sup>194</sup> GRAV, in Judd's view, ignored Klein's advance and returned to Mondrian's "universality," now untenable and obsolete. <sup>195</sup> He criticized them for it: "The group is seeking too wide a generality for the present, a generality claiming an objective validity." <sup>196</sup> The metaphysical order seeming to underlie GRAV's

<sup>&</sup>lt;sup>192</sup> "Gerald Oster," 65; and rephrased in "New York Letter," 77.

<sup>&</sup>lt;sup>193</sup> "Groupe de Recherche d'Art Visuel," 45.

<sup>&</sup>lt;sup>194</sup> Judd in "Abstract Expressionism," BBC Television program for The Open University, 1983, at 3:26; and "Barnett Newman," 69.

<sup>&</sup>lt;sup>195</sup> "Groupe de Recherche d'Art Visuel," 45.

<sup>&</sup>lt;sup>196</sup> Ibid.

compositional balancing convinced Judd that their works did not progress beyond the foremost painting of the time. "Klein, claiming less, overpowers them," he concluded. <sup>197</sup> In Judd's final estimation, Gerstner, Oster, and GRAV failed to solve the principal challenge posed by their new phenomena—how to cultivate an original and important kind of art by extending beyond existing visual art practices, traditional ways of seeing, and commonplace knowledge of the way things look.

## V. Single Phenomena: Dan Flavin, Larry Bell, Robert Irwin

Judd recognized in Dan Flavin's fluorescent light constructions what he thought previous phenomenal artworks lacked: an "immediate means . . . used for an immediate purpose." He precisely recorded the elaborate color and optical effects of four vertical lamps placed side by side (fig. 2.34):

The two outside tubes are [so-called] "Cool" white and the inner ones are [so-called] "Daylight" white, which looks blue in this context. A line of light is thrown along each tube by the adjacent ones. The space between the two central tubes is blue, bluer than

<sup>&</sup>lt;sup>197</sup> Ibid.

<sup>&</sup>lt;sup>198</sup> Ibid.

the bulbs. The two other spaces are less blue because of the [outer Cool] white. 199

Additional discussion of these perplexing optical phenomena clarifies Judd's discoveries concerning how multicolored fluorescent tubes behave when juxtaposed. Coming upon slightly differing white lights is a frequent enough occurrence in everyday life, but we usually do not take the time to observe exactly how the light appears. In Flavin's piece, Judd noticed how two tightly aligned colors become four. Both retain some of their original hue, but beside one another the Cool white appears more cream-colored than it does on its own and the Daylight white appears bluer. Compounding this initial doubling, the light mixes and multiplies in actual space. The creamy white and bluish white blend in the outer left and right gaps between lamps, resulting in a tertiary color both bluer than creamy white and creamier than bluish white. The central gap, however, remains tinted a pure blue, even bluer than the two central lamps since untouched

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<sup>&</sup>lt;sup>199</sup> "Dan Flavin," *Arts Magazine* 38, no. 7 (April 1964): 31 (supplemented for clarity). Judd did not name the particular work he was describing and Tiffany Bell and David Gray list no such configuration in their catalogue raisonné of Flavin's fluorescent lights. See Tiffany Bell and David Gray, "Catalogue of Lights," in Michael Govan and Tiffany Bell, *Dan Flavin: The Complete Lights*, 1961–1996 (New York: Dia Art Foundation, 2004). Judd probably saw *daylight and cool white (to Sol LeWitt)* of 1964 with its lamps reversed (T. Bell and Gray, 228, no. 39). Tiffany Bell suggests two explanations for this: Judd may have seen an early version of the piece that Flavin later changed, or the exhibited work could have been a variation. Tiffany Bell, statements to author, September 18–19, 2006. The image of *daylight and cool white (to Sol LeWitt)* included in this dissertation is a digital alteration of an image reproduced in Bell and Gray, here with the lamps reversed in order to approximate the work Judd may have seen and described in his review.

by the creamy white of the outer lamps that saps their hue. "The lit tubes are intense and very definite[,] very much a particular visible state, a phenomenon," Judd reported in summarizing these complex visual effects. 200

The creamy and bluish glow Flavin created by juxtaposing lamps that emit different kinds of white recalls the color effects Judd discerned in Albers' *Homage to the Square*, except for the added brilliance of cast fluorescent light shining into actual space. "Two juxtaposed painted whites are subtle," he commented, "two juxtaposed white tubes are pretty obvious." Judd documented this overall strengthening of phenomena throughout the 1960s. Color and optical effects at first constituted one property among others of comparable specificity and interest in Albers' and Poons' paintings; then, more potent illusions arose from the modern materials of Gerstner, Oster, and GRAV only to diminish alongside traditional techniques and composition; and finally, phenomena began to exceed all other qualities in the art of Flavin, Larry Bell, and Robert Irwin. <sup>202</sup>

<sup>&</sup>lt;sup>200</sup> "Aspects of Flavin's Work," in Dan Flavin, *fluorescent light, etc. from Dan Flavin* (Ottawa: National Gallery of Canada, 1969), 27.

<sup>&</sup>lt;sup>201</sup> "Aspects of Flavin's Work," 28. Judd examined several kinds of illusionary color effects in Albers' paintings, one of which was how "the color varies according to the colors surrounding it." See "Josef Albers" (1991), 24. Judd mentioned the same arrangement of dissimilar white lamps when discussing the independence of Malevich's color from form. "Autonomous color is still full of possibilities," he wrote, "for example, Flavin's use of two adjacent tubes of contrasting white." See "Malevich: Independent Form, Color, Surface," 57.

<sup>&</sup>lt;sup>202</sup> Judd owned several works by Flavin, including *icon III (blood) (the blood of a martyr)* of 1962, *icon VI (Ireland dying) (to Louis Sullivan)* of 1962–63, one of the *alternate diagonals of March 2*, 1964 (to Don Judd) of 1964, an untitled 1970 modular barrier, and *Untitled (to Véronique)* of 1987, as well as two 1986 screenprints called *Untitled [for Rento]* and six 1987 lithographs titled

More and more, optical phenomena appeared in visual art as an unprecedented category of sensory experience and knowledge.

The evolution of Judd's thinking on Flavin's work in particular clouds the distinction drawn in "Local History" between objects and phenomena. Like the good empiricist he claimed to be, Judd made discoveries about Flavin's art from fastidious, prolonged, and repeated observations. The more he looked at the pieces, the more complexity he discerned in their intriguing optical phenomena. <sup>203</sup> Judd made no mention of Flavin's phenomenal features in "Specific Objects." Instead, he predictably accentuated the objectness of fluorescent lamps and

To Don Judd, Colorist 1–4 and 6–7. See Post-War and Contemporary Art (Afternoon Session), Wednesday 10 May 2006 (New York: Christie's, 2006), 18–19, lot 409; Prints and Multiples, Monday 1 May 2006, Tuesday 2 May 2006, 177–78, lots 432, 433; and T. Bell and Gray, 211–13, 226, 292, 365, nos. 3, 6, 36, 255, 497.

Judd was the first artist to buy a piece from Larry Bell. He collected several works including glass cubes, two 1979 vapor drawings titled *PFBK 24, Vapor Drawing* and *SMMSHFAK 3A, Vapor Drawing*, and the 1962 painting *Lux at the Merritt Jones*. See *First Open: Post-War and Contemporary Art, Wednesday 13 September 2006* (New York: Christie's, 2006), 170, lots 194, 195; and Larry Bell, statement in *Artforum* 32, no. 10 (Summer 1994): 73.

Judd also had a 1965–67 aluminum disc by Irwin. See "Una stanza per Panza, part II," *Kunst Intern* 5 (July 1990): 8; and *Post-War and Contemporary Art (Afternoon Session), Wednesday 10 May* 2006, 24–25, lot 412.

<sup>&</sup>lt;sup>203</sup> In a 1975 interview with Friedrich Teja Bach, Judd claimed to be a "thorough empiricist" and elsewhere wrote that he "leapt into the world an empiricist." "I believe in what I feel, know, and experience, and I follow the interests inherent in myself," he asserted. See Friedrich Teja Bach, interview with Donald Judd, May 5, 1975, Archives of the Donald Judd Foundation, Marfa, Texas, as cited in David Raskin, "Donald Judd's Skepticism," unpublished Ph.D. dissertation, The University of Texas at Austin, 1999, 3, n. 3; "Two Contemporary Artists Comment," *Art Journal* 41 (Fall 1981), reprinted in Donald Judd, *Complete Writings 1975–1986* (Eindhoven: Van Abbemuseum, 1987), 15; and Donald Judd, "Art and Architecture," *Complete Writings* 1975–1986, 35. See also Raskin, David. "The Shiny Illusionism of Krauss and Judd." *Art Journal* 65, no. 1 (Spring 2006): 7–21.

housings and their status as "industrial products."<sup>204</sup> This reading soon changed, however. In a 1964 *Arts Magazine* review, Judd examined one of Flavin's *alternate diagonals of March 2, 1964 (to Don Judd)* (1964).<sup>205</sup> Phenomena such as the "spaces between the red tubes [appearing] rose" coexist with a variance in how far the fixtures jut out, the work's "very open" relationship to the wall, the "disproportion" of the four short red lamps and one long yellow lamp, and the "four-and-one relationship" itself.<sup>206</sup> Phenomena seem to constitute one attribute of a multifaceted specific object in this early account, thereby collapsing the two categories as the latter subsumes the former.

This balanced multiplicity then gave way to the primacy of optical phenomena in a 1969 catalogue essay for the National Gallery of Canada. Here Judd identified "three main aspects" of Flavin's art: "the fluorescent tubes as the source of light, the light diffused throughout the surrounding space or cast upon

<sup>&</sup>lt;sup>204</sup> "Specific Objects," 80. Judd included Flavin in discussion of objects rather than phenomena in "Local History" based on the early *icons*, which preceded works with fluorescent lamps alone: "Dan Flavin has shown some boxes with lights attached." See "Local History," 32; and T. Bell and Gray, 211–14, nos. 1–8.

<sup>&</sup>lt;sup>205</sup> Flavin commonly dedicated his works to friends; thirteen include Donald Judd's name. See T. Bell and Gray, 225–26, 362–64, nos. 35–38, 483–91. Judd owned a variation of *alternate diagonals of March 2*, 1964 (to Don Judd), but with Daylight white and Cool white lamps rather than the red and yellow lamps of the variation he reviewed in the April 1964 issue of *Arts Magazine*. See "Dan Flavin," 31; T. Bell and Gray, 225–26, nos. 35, 36.

<sup>&</sup>lt;sup>206</sup> "Dan Flavin," 31. As with *alternate diagonals of March 2, 1964 (to Don Judd)*, no properties dominated in Judd's analysis of Flavin's *the diagonal of May 25, 1963* (1963). He studied the "very different white[s]" of the lamp and the enameled metal housing, the "definite shadow" of the fixture, the light "cast widely" on the wall, and the "familiar" industrial nature of the lamp and housing. See "Black, White and Gray," *Arts Magazine* 38, no. 6 (March 1964): 38.

nearby surfaces, and the arrangement together or placement upon surfaces of the fixtures and tubes." Judd's understanding of Flavin's art changed over time. At first, the lamps struck him as specific objects and he made no comment on their optical phenomena; then, he viewed Flavin's pieces as specific objects with noteworthy color and optical effects; and, finally, Judd conceived Flavin's art to concern phenomena above all else. Judd made an initial discovery when studying Flavin's works and then investigated what he had seen and learned.

Although Judd wrote very little on either artist, his brief analyses of Bell's vacuum-coated glass cubes and Irwin's painted aluminum and acrylic plastic discs reestablish some disparity between objects and phenomena in his art criticism (figs. 2.35, 2.36). "Most art, including mine, involves several things at once, none developed toward exclusivity," Judd observed in a 1967 essay. "Usually there is a comparative balance between the few main aspects." Contrary to this broader multivalence characteristic of specific objects, so-called "single" phenomena predominate in pieces by Flavin, Bell, and Irwin. "The singleness or isolation of phenomena is new to art and highly interesting," Judd remarked on Flavin's works. "Irwin and Bell and a couple of others in Los Angeles are also interested

<sup>&</sup>lt;sup>207</sup> "Aspects of Flavin's Work," 27.

<sup>&</sup>lt;sup>208</sup> Ibid.

in developing single phenomena."<sup>209</sup> By "single," Judd meant to characterize the singular intensity of the visual phenomena he saw—these optical effects were interesting in and of themselves, unconstrained by traditional techniques and compositional order.

Judd also sought to parse the phenomena he discovered in these artworks, to work through distinctions requiring further intensive visual study. For instance, Judd saw that a difference of degree separates works by Bell, Irwin, and Flavin. He argued that single phenomena in the cubes and discs surpass other qualities even more than in Flavin's constructions: "The dominance as an aspect of the fluorescent tubes is not as great as that of single phenomena in Bell's and Irwin's work." Nevertheless, he felt that works by all three artists investigate phenomena so fully that their color and optical effects could sustain interest alone, unlike Gerstner's and Oster's moiré. Judging from his enthusiastic response,

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<sup>&</sup>lt;sup>209</sup> Ibid. Both Bell and Irwin began experimenting with new kinds of work in 1969, the year Judd's reference to their art appeared in his catalogue essay on Flavin. Bell was making fewer cubes and instead constructing glass walls and other installations. Irwin painted his last disc around 1969 and started a series of acrylic plastic columns that informed later adaptations of existing spaces. The timing of Judd's article makes it likely that he had in mind Bell's cubes and Irwin's discs, although his discussion also remains accurate for their subsequent investigations of phenomena.

Judd made only brief mentions of Bell and Irwin, but he admired their work and insisted that it merited more attention. He noted dryly in 1969 that for most art critics "Bell and Irwin hardly exist." See "Complaints: Part I," 184; and "A Long Discussion Not About Master-Pieces but Why There Are So Few of Them, Part II," *Art in America* 72, no. 9 (October 1984): 10. In a 1993 interview, Judd also said that he hoped Bell and Irwin would install pieces at his non-profit Chinati Foundation in Marfa, Texas, along with Flavin's planned conversion of six army barracks. See Judd in Todd Eberle, "Donald Judd: The Interview," *Interview* 24, no. 4 (April 1994): 98.

<sup>&</sup>lt;sup>210</sup> Ibid., 27.

works by Flavin, Bell, and Irwin seem to have fulfilled Judd's 1965 predictions of an important phenomenal art being capable of replacing present practices.<sup>211</sup> By paying close attention to the visual phenomena in these and other artworks, Judd gained new knowledge about their innumerable and peculiar appearances.

At first Judd considered Bell's glass cubes to be specific objects, but as with Flavin's lamps, he revised this 1964 account in 1969 by emphasizing the visual effects he observed. By turns reflective and translucent, the coated glass gives rise to single phenomena. When opaque and reflective like a mirror from one viewpoint, a 1968 cube's twenty-inch panels seem to dematerialize into radiating light; when transparent like a windowpane from another angle, an iridescent sheen modulates through pink, yellow, ocher, purple, and violet from the center of the glass plates to their corners (fig. 2.37). Judd mentioned a second feature of Bell's works along with Oldenburg's droopy sculptures in his last essay, from 1993. Oldenburg's objects interested Judd for their "soft [and] flexible" space, which exists unseen inside a canvas or vinyl skin. Bell's cubes, on the contrary, contain "a visible space." Their glass shell reveals a sealed interior, four cubic feet available to visual scrutiny but cut off from bodily

 $<sup>^{211}</sup>$  See "Karl Gerstner," 59–60; and related discussion in the previous "New Phenomena" section in this chapter.

<sup>&</sup>lt;sup>212</sup> See "Specific Objects," 78; and "Aspects of Flavin's Work," 27.

<sup>&</sup>lt;sup>213</sup> Some Aspects of Color, 7.

experience. Phenomena confound visual inspection, however. Peering down into a cube and to the left, you see what is outside it to the right. Reflections off the inner glass surfaces seemingly double space in every direction as you crouch to look up, crane to look down, and otherwise circle around. Judd regarded the impact of these and other optical illusions on one's perceptual capacities as a third property of Bell's glass cubes and subsequent pieces, "a phenomenological aspect . . . . [that] modified" their visible inner spaces. <sup>214</sup> For Judd, the multivalence of Bell's works derives from the intricacies of single phenomena, a narrower overall scope than the several distinct attributes of specific objects. He found in the novelty and intensity of the cubes' visual properties what he found lacking in other works with optical phenomena.

Irwin's discs also create acute phenomena that challenge the perceptual expertise one naturally develops through experience of the world from childhood on. Suspended twenty inches from the wall by a rear brace, an untitled 1966–67 work has a circular and convex white face faintly tinted with pink, violet, blue,

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<sup>&</sup>lt;sup>214</sup> Ibid., (phrase reordered). Larry Bell built experimental interior architecture that further investigated this "phenomenological" feature, a term Judd seems to use loosely here without intending the metaphysical connotations of Husserl's or Merleau-Ponty's studies of perception. Judd planned to allocate space at the Chinati Foundation for the two darkened rooms that Bell constructed in his Venice Beach studio and in The Museum of Modern Art in 1969. See "A Portrait of the Artist as His Own Man," *House & Garden* 157, no. 4 (April 1985): 220; and "The Chinati Foundation," *The Chinati Foundation* (Marfa, Tex.: The Chinati Foundation, 1987), unpaginated (fourth page).

<sup>&</sup>lt;sup>215</sup> See related discussion in the "Development of Vision" section in Chapter 1 above.

green, yellow, and grayish purple in successive rings from center to rim (fig. 2.38). These chromatic fluctuations generate optical effects that exaggerate the camber of the shaped aluminum surface. Looking at the disc head-on, one sees a sphere instead, mistakenly construing five feet of nonexistent depth in correspondence with its real five-foot diameter. As a viewer continues to stare straight ahead, illusions abound as the eyes begin losing focus and retinal fatigue sets in. Shadows gleam and emerge rather than withdrawing. Pulses of light race around the lip. Large swathes of the disc, shadows, and wall disappear and reappear every so often as one's visual acuity slumps and recovers. Intriguing in themselves, such remarkable phenomena also alter one's bodily sense of space. The gallery lighting can appear to dim then brighten in a flash, compacting and distending the room in turn. As with Bell's work, Judd characterized these effects as a "phenomenological aspect" of Irwin's art. 216

In Judd's assessment, phenomena make up only one attribute of Albers' and Poons' multifaceted paintings. Yet "developed toward exclusivity" by Flavin, Bell, and Irwin, so-called single phenomena manifest their own kind of multiplicity—a primary quality's numerous qualities—and sustain interest on their own.<sup>217</sup> These strange sights are likely to be totally new. By standing in the

<sup>216</sup> Some Aspects of Color, 7.

<sup>&</sup>lt;sup>217</sup> "Aspects of Flavin's Work," 27.

gallery and observing with a hypersensitive mode of vision one gains access to extraordinary perceptual experience. The pieces in which Judd discerned optical phenomena provide new knowledge, demonstrating that art can still look very peculiar if we attend to what is actually before us instead of glancing about and inferring the rest based on what we have already seen and what we already know. These works seem to demonstrate firsthand that if you perceive, you will make discoveries.

### VI. Conclusion: A Phenomenal Art History

In 1967, Judd reaffirmed his tentative categories from "Local History" when he distinguished his goals from those of Dan Flavin, stating, "I think Flavin wants, at least first or primarily, a particular phenomenon. [. . .] I want a particular, definite object." Nevertheless, the reassembled category of phenomenal art within Judd's writing draws attention to the color and optical behavior of his own works. In one hundred aluminum objects at the Chinati

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<sup>&</sup>lt;sup>218</sup> Ibid., (phrases reordered). Judd also remarked that, "as far as light goes I think that Flav[i]n is the best artist around. [My not focusing on light is] just a case of my not understanding it[,] not being able to use it. [...] Flavin and I have certain things in common, but we also have wide and different things not in common. We are friends, but couldn't be more divergent." See Judd in Richard Stankiewicz, "Judd Sculpture," microfilmed interview transcript, undated (Washington, D.C.: Richard Stankiewicz Papers, Archives of American Art), roll 3750, frame 1191; and Judd in Angeli Janhsen, et al., "Discussion with Donald Judd," *Donald Judd* (St. Gallen, Switzerland: Kunstverein St. Gallen, 1990), 50.

Foundation in Marfa, Texas, phenomena interact with space, volume, proportion, formal variation, and other aspects (figs. 2.39, 2.40). The units, each measuring forty-one by fifty-one by seventy-two inches, sit in two rectangular buildings with over 250 feet of glazing on both long sides. Sunlight floods over and into the works. Some channel light through their partitioned interiors, tempering its intensity. Late afternoon brings forth a range of luminosities from the uniform aluminum—blazing lateral surfaces, glimmering corners, and darkened crevices. Each piece takes on tints from its location, such as the red of the buildings' brick walls, yellow from prairie grass outside, and blue from the sky. In other words, phenomena seem to constitute one of the several aspects in these specific objects, thereby eliding the two categories from "Local History"—as when Judd analyzed Stella's paintings twice in the article and when he reviewed Flavin's *alternate diagonals of March 2, 1964 (to Don Judd)* in 1964.<sup>219</sup>

Judd also conveyed the rich effects of natural light at Chinati with fifteen outdoor concrete works fabricated from immense units measuring two and a half by two and a half by five meters (fig. 2.41). Throughout the day, the rising sun and passing clouds change the size, shape, hue, and chromatic saturation of shadows inside and outside the open forms. In the northernmost work, one unit's

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<sup>&</sup>lt;sup>219</sup> See related discussion in the previous "Introduction" in this chapter; "Local History," 32, 35; and "Dan Flavin," 31.

shadow cuts a notch into another's lit interior, resulting in a radiant band running around its inner surfaces. The light gray concrete appears surprisingly different in the pale yellow glow of early morning, the blinding white afternoon, and under the deep orange setting sun (fig. 2.42). Like the art with phenomena that interested Judd, color and optical effects in his aluminum and concrete objects are complicated and ambiguous while also actual and definite.

Phenomena adjust current understandings not only of Judd's art and criticism, but perhaps also of art history. In 1983 Judd broadened the scope of his term. "The dripped paint in most of Pollock's paintings remains dripped paint as a phenomenon," he observed. "It's that sensation, completely immediate and specific, and nothing modifies it."<sup>220</sup> By extending the word beyond definite illusions to encompass other kinds of sensations (with Pollock, it seems to be the sheer physicality of the paint skeins), Judd licensed his subsequent assertion of phenomena's major role in postwar artmaking. He declared that, "at the same time as Pollock and since, almost all first-rate art has been based on an immediate phenomenon."221

He went even further in 1993. In his final essay, Judd expanded phenomena to include one of the most basic properties of visual art. "Color," he

<sup>220</sup> This citation combines two similar passages on Pollock's dripped paint. See "Jackson Pollock," 34; and "Yale Lecture," 154. For related discussion, see also "Abstract Expressionism," at 15:28.

<sup>&</sup>lt;sup>221</sup> "Yale Lecture," 154. See also "Abstract Expressionism," at 14:44.

proclaimed, "is an immediate sensation, a phenomenon."<sup>222</sup> Judd viewed the continuous strengthening of color as "the most powerful force" behind painting's evolution during the twentieth century, and, accordingly, recast the "conventional history of recent painting" as "a history of color in art."<sup>223</sup> "Color is the dominant aspect [in pieces by] Matisse, Mondrian, Malevich, Léger," he contended, and in the paintings of "Pollock, Newman, Still, and Rothko . . . color is amplified beyond anything seen for centuries."<sup>224</sup> Intense color led to color effects and other optical phenomena in painting and, in the end, to altogether new mediums. Albers' *Homage to the Square* paintings and his book *Interaction of Color*, for example, "undoubtedly made color and optical phenomena familiar" to painters such as Poons but also to Flavin, Bell, and Irwin. <sup>225</sup> Put to diverse uses by numerous artists in countless works, much twentieth-century art manifests phenomena according to Judd's later and much expanded definition.

In 1963 Judd identified what he called "an increasing use of optical and color phenomena." When he wrote on Flavin in 1969, art with phenomena was

<sup>&</sup>lt;sup>222</sup> Some Aspects of Color, 16.

<sup>&</sup>lt;sup>223</sup> Ibid., 13, 15–16 (phrases reordered).

<sup>&</sup>lt;sup>224</sup> Ibid., 16 (phrases reordered).

<sup>&</sup>lt;sup>225</sup> "Local History," 35. "Color is an immediate sensation, a phenomenon," Judd argued, "and in that leads to the work of Flavin, Bell and Irwin." See *Some Aspects of Color*, 16.

<sup>&</sup>lt;sup>226</sup> "Interaction of Color by Josef Albers," 75.

maturing. Two decades later, Judd stated that "in general I think the future of art lies in stressing phenomena more, but you can also make too much of that." The stakes are high, his reserve notwithstanding. If Judd was right that phenomena constitute an aspect of some or most of the twentieth century's most "interesting" art (to use his term), subsequent analysis has to catch up. Scrutiny of phenomena spurs new ways of seeing and thinking about art of the 1960s and 1970s, work before and after this decade, and works yet to come. Artworks once thought to be familiar begin to look considerably different if one takes note of their phenomena. Judd would have approved. Restoring phenomena to his art, to his art criticism, and to art history helps make things messy again.

And the new knowledge gained by studying phenomena in art suggests what we can learn when we take the time to really look. In everyday life and with everyday vision, it is easy enough not to notice the play of reflections off metal and the continuously mutating shadows on objects and structures. A standard sensory threshold does not permit this kind of visual incidence to register, ancillary as these appearances are to navigating from one point to another or to accomplishing a task. When we stop for a spell, when we gaze instead of glance,

<sup>&</sup>lt;sup>227</sup> Judd in David Batchelor, "A Small Kind of Order," *Artscribe International* 78 (November–December 1989): 65.

when we allow our perceptual faculties to trade efficiency for exactitude, we end up rediscovering a wonderful mess of optical phenomena.

#### **CHAPTER 3**

### A Look at Phenomena in John Chamberlain's Lacquer Paintings

## I. Introduction: Color and Lacquer

In this chapter, I offer the first extended analysis of John Chamberlain's lacquer-on-board paintings, of his innovative paint mixtures and application techniques in these pieces, and of the visual phenomena that his artworks—both the lacquer paintings and the more familiar metal sculptures—bring about. Also, I evaluate Chamberlain's provisional separation of the complicated and intertwined concepts of intuitive thinking and intellectual thinking, both in terms of his fabrication process and also with regard to the critical reception of his works.

Donald Judd's reviews, for instance, described an innovative type of depth in the lacquer pieces that he felt amounted to a new physical and visual property in the history of painting. Such are the discoveries that one happens upon when an intensive mode of visual examination undergirds the experience of art.

I also evaluate how Chamberlain's art and his conceptions of the experience of it might inform our engagement with and expectations for artworks.

Knowledge that derives from perception stays flexible given the strange

phenomena we continually encounter. Interpretations of an artwork's allusions to, associations with, and evocations of what we already understand often remain hidebound, failing to either allow for or account for visual phenomena at odds with these readings. Chamberlain's work demonstrates that when viewing art, a willingness to just perceive can lead to the discovery of something new.

For example, the lush yet matter-of-fact colors of junkyard sheet metal intrigued several of the first art critics to write about Chamberlain's sculptures. <sup>228</sup> Judd, for one, coined the odd adverb "Rooseveltianly" in characterizing how Chamberlain juxtaposed the hues of automobile scrap in works such as *Essex* of 1960, *Huzzy* of 1961, and *Dolores James* of 1962 (figs. 3.1–3.3). <sup>229</sup> Recall how in 1993, three decades after this review, Judd would expand his conception of so-called optical phenomena to include color, which he thought of as "an immediate

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<sup>&</sup>lt;sup>228</sup> See Irving Sandler, "In the Art Galleries," *Week-End Magazine* [January 21–27, 1962]: 12, in *New York Post* (January 21, 1962); N[atalie] E[dgar], "John Chamberlain," *Art News* 60, no. 10 (February 1962): 15; Michael Fried, "New York Letter," *Art International* 6, no. 8 (October 25, 1962): 76; and Lucy R. Lippard, "New York Letter," *Art International* 9, no. 3 (April 1965): 53.

<sup>&</sup>lt;sup>229</sup> D[onald] J[udd], "John Chamberlain," *Arts Magazine* 36, no. 6 (March 1962): 48. Chamberlain said he was flattered by Judd's comment but elsewhere warned that "if you believe in the Judd theory, you need to be un-Judded!" See, respectively, "John Chamberlain in Conversation with Klaus Kertess," *Chinati Foundation Newsletter* 11 (2006): 16; a brief reference in Henry Geldzahler, "Interview with John Chamberlain," *John Chamberlain: Recent Work* (New York: The Pace Gallery, 1992), unpaginated (seventh page); and an October 29, 2003, telephone interview with Chamberlain, as cited in Barbara Bloemink, "The Continuum Between, and Transformations of, Art and Design," in Barbara Bloemink and Joseph Cunningham, *Design* ≠ *Art: Functional Objects from Donald Judd to Rachel Whiteread* (New York: Cooper-Hewitt National Design Museum, Smithsonian Institution, 2004), 77, 154, n. 1.

sensation, a phenomenon."<sup>230</sup> Judd discussed Chamberlain's color as early as 1962, a palette that he felt "involves the hard, sweet, pastel enamels, frequently roses and ceruleans, of Detroit's imitation elegance for the poor—coupled, Rooseveltianly, with reds and blues."<sup>231</sup>

Some associations of Chamberlain's colors emerge in this sentence. Rose and cerulean suggested to Judd the products of Detroit manufacturing, such as gaudy cars and other durables that FDR's New Deal policies promised to put within reach of the working class. Red and blue functioned as genuine aristocratic hues, a nod to Roosevelt's own privileged caste. Unlike figurative language in much contemporaneous art criticism, Judd's impromptu appeals to an American city and president clarify the attributes one perceives in Chamberlain's objects more than distracting from them. Detroit calls to mind a certain characteristic color range in this 1962 review instead of the labor strikes of the 1930s (or the later race riots one thinks of at its mention today). The reference to Roosevelt concentrates one's attention not on legislative efforts to rebalance a stratified

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<sup>&</sup>lt;sup>230</sup> Some Aspects of Color in General and Red and Black in Particular (Sassenheim, Netherlands: Sikkens Foundation, 1993), 16. See related discussion in the "Conclusion" of Chapter 2 above. Judd maintained that strengthening color was "the most powerful force" behind painting's development during the twentieth century and, as such, considered the "conventional history of recent painting" to be "a history of color in art." "Color is the dominant aspect [in pieces by] Matisse, Mondrian, Malevich, Léger," he argued, and in the paintings of "Pollock, Newman, Still, and Rothko ... color is amplified beyond anything seen for centuries." Some Aspects of Color, 13, 15–16 (phrases reordered).

<sup>&</sup>lt;sup>231</sup> J[udd], "John Chamberlain" (1962), 48.

Depression-era society but rather on Chamberlain's complex coupling of red and blue with rose and cerulean. The visual phenomena created by these adjacent colors remain the point of focus in Judd's metonymical association.

In *Essex*, for example, red and blue contrast as opposed primaries but have identical saturation and close values; the red and rose are nearer in hue though less alike in saturation and value; and the red and cerulean share little. Judd's allusions helped him convey how Chamberlain's incongruous colors jar without counteracting one another, which maximizes the visibility of each—an optical effect in some ways similar to a painter's juxtaposition of chromatic complementaries to heighten the brilliance of both. The phenomena one sees when examining Essex resist description in language, but, with that caveat in mind, the colors in the piece seem to pop. They appear more vivid and robust than it seems they should. This peculiar perceptual effect is based in utterly physical materials of course, the crumpled pieces of metal fitted together and hanging from the wall. And yet the adjacent hues of the automotive paint seem to tinge one another with immaterial illusion that intensifies their stimulation of the eye. Discoveries of this ilk occur when one pays attention to exactly how a work appears in itself, defiantly resisting the temptation to search for similarities with prior perceptual experience at any cost. Such a way of engaging art offers an alternative to exploring everything else a piece suggests or imperfectly resembles.

Today, Judd's analysis remains some of the most acute writing on Chamberlain's art. That being said, he and others insisted on an affinity between Chamberlain's work and Willem de Kooning's paintings, a somewhat curious reading given that Chamberlain himself repeatedly named Franz Kline as a greater influence (figs. 3.4, 3.5).<sup>232</sup> Chamberlain acquiesced to the tenuous similarity in the end but tried to limit its scope. He specified that "the comparison of my color to de Kooning's color has a lot to do with the fact that Detroit puts a

<sup>&</sup>lt;sup>232</sup> For mentions of de Kooning in early writings on Chamberlain, see D[onald] J[udd], "John Chamberlain," *Arts* 34, no. 5 (February 1960): 57; Donald Judd, "Chamberlain: Another View," *Art International* 7, no. 10 (January 16, 1964): 38; and Walter Hopps, "Foreword," *New American Sculpture* (Pasadena: Pasadena Art Museum, 1964), unpaginated (first page). In 2001, the PaceWildenstein gallery organized an entire exhibition around the comparison of Chamberlain and de Kooning. See Bernice Rose, "Willem de Kooning and John Chamberlain: Displaced Realities," *De Kooning / Chamberlain: Influence and Transformation* (New York: PaceWildenstein, 2001), 5–13.

For Chamberlain's statements of Kline's importance, see "Art as Invention: Sculptors John Chamberlain and George Segal Discuss Their Work," 1985 transcript of a 1971 audio recording (North Hollywood, Cal.: Center for Cassette Studies, Pop Art Profiles 5303), Art Library vertical files, The Menil Collection, Houston, 6; Phyllis Tuchman, "An Interview with John Chamberlain," Artforum 10, no. 6 (February 1972): 43; Edward Leffingwell, "The Irregular Set: An Interview with John Chamberlain," John Chamberlain: Sculpture and Work on Paper (Youngstown, Ohio: The Butler Institute of American Art, 1983), 18; Michael Auping, "John Chamberlain," Art of Our Time: The Saatchi Collection, 4 vols. (London: Lund Humphries, 1984), 2:13; Julie Sylvester, "Auto/Bio: Conversations with John Chamberlain," in Julie Sylvester, John Chamberlain: A Catalogue Raisonné of the Sculpture, 1954-1985 (Los Angeles: The Museum of Contemporary Art, 1986), 14; John Chamberlain and Lawrence Weiner, "Skimming the Water: The Gondolas of John Chamberlain," John Chamberlain: Gondolas and Dooms Day Flotilla (New York: Dia Center for the Arts, 1991), 9; Robert Creeley, interview with John Chamberlain, transcript, November 29, 1991, Buffalo, New York, 31 (Dieter Schwarz first cited this source in "To Create the Flow," in Dieter Schwarz, ed., John Chamberlain: Papier Paradisio, Drawings, Collages, Reliefs, Paintings [Winterthur, Switzerland: Kunstmuseum Winterthur, 2005], 9, n. 4); Geldzahler, "Interview," third page; and Hans Ulrich Obrist, John Chamberlain (Cologne: Verlag der Buchhandlung Walther König, 2006), 78. The Smithsonian Institution's Archives of American Art includes a file with a painting signed "to / Franz Kline / Xmas '57 / John Chamberlain" along with Fielding Dawson's essay "Captain America" (also dedicated to Kline), and a matted poem titled "Some Changes" probably by Max Finstein.

lot of white in the color . . . that they mix for putting on cars."<sup>233</sup> Artist Lawrence Weiner commented further in a conversation with Chamberlain: "Color is opaque for a car and for de Kooning as well. . . . In order to get a blue, it had to be a blue based on white. It had to have a white or grey base or it wouldn't cover the metal, and it wouldn't be opaque; it would be translucent."<sup>234</sup> Weiner's assessment holds true for the unaltered commercial enamel on metal in Chamberlain's earliest pieces. Yet in paintings from 1963 to 1965, and in many subsequent sculptures, Chamberlain experimented with visual phenomena and perceptual properties contrary to standard automobile paint-jobs—those arising not from enamel's opacity but instead from lacquer's translucence.

In *Four Seasons* of 1964, Chamberlain sprayed one hundred layers of orange metal-flake lacquer onto a square-foot sheet of Formica (fig. 3.6). He wanted to try "arriving at a color through veils." To achieve this innovative

<sup>&</sup>lt;sup>233</sup> Chamberlain in Sylvester, "Auto/Bio," 14. See also "Art as Invention," 6; an April 2, 1987, conversation with Chamberlain, as cited in Michael Auping, "John Chamberlain," *Structure to Resemblance: Work by Eight American Sculptors* (Buffalo, N.Y.: Albright-Knox Art Gallery, 1987), 23, 25, n. 13; Bonnie Clearwater, interview with John Chamberlain, transcript, January 29, 1991, Sarasota, Florida, (Washington, D.C.: Oral History Project, Archives of American Art), 69; and Geldzahler, "Interview," thirteenth page.

<sup>&</sup>lt;sup>234</sup> Weiner in "Skimming the Water," 9.

<sup>&</sup>lt;sup>235</sup> Chamberlain in "Excerpts from a Conversation Between Elizabeth C. Baker, John Chamberlain, Don Judd, and Diane Waldman," in Diane Waldman, *John Chamberlain: A Retrospective Exhibition* (New York: The Solomon R. Guggenheim Museum, 1971), 19. For Chamberlain's description of his painting technique, see also Tuchman, "Interview," 39; Sylvester, "Auto/Bio," 18; and Francesca Esmay and Adrian Kohn, interview with John Chamberlain, audio recording, March 14, 2006, New York.

kind of hue—pure color with true depth—Chamberlain minimized the ratio of flake to binder. "I was interested in taking a can full of clear glaze and dumping a teaspoon of color into it and then painting and painting," he explained. "It took fifty coats before I got a color." A single coat of the lacquer blend in *Four Seasons* would have appeared transparent, but dozens of overlapping coats accumulated like layered veils into a sparkling orange. The physicality of this depth remains minute and yet the perceptual effects are surprisingly strong. After staring intently at the piece, one begins to sense that there is a bit of depth rather than a flat surface. This discovery in turn encourages one to adjust from looking at the fused layers of lacquer to looking into them, as one would do when inspecting a tridimensional space. These new visual phenomena beget a different mode of viewing painting, and vice versa.

As the lacquer piled up, Chamberlain often complicated its shallow thickness. Midway through the layers of *Four Seasons*, he painted two sets of nine squares, one with a translucent red lacquer and the other with a more opaque violet, before covering the entire surface with additional clear coats. <sup>237</sup> "What I wanted to do with those little squares was have them float in there, have them appear floating," he observed, "[so] I put down a lot of veils with the squares

<sup>&</sup>lt;sup>236</sup> Chamberlain in Sylvester, "Auto/Bio," 18.

<sup>&</sup>lt;sup>237</sup> Note that in catalogue reproductions of some paintings, such as *Dee Dee Sharp* (1963) and *Righteous Bros* (1965), one of the two sets of nine squares is often indiscernible.

halfway in, like more veils."<sup>238</sup> A cross-section of *Dee Dee Sharp*'s fused layers measures less than one-sixteenth of an inch, but Chamberlain regarded the surface as "deep at some level with the color build-up" (fig. 3.7).<sup>239</sup> Indeed, the veiled squares, dark and visible though buried within the translucent yellow, confirm that one is seeing into a thin slab of hardened lacquer. Compared to the depicted or chromatic depth of other postwar paintings, the shallow physical depth of *Four Seasons* and *Dee Dee Sharp* registers as surprisingly different since it is real. Many paintings from the 1960s and 1970s share a superficial resemblance at first sight; Chamberlain's pieces demonstrate the necessity of scrutinizing works if one hopes to discern and distinguish their unique perceptual properties.

Another series of larger lacquer paintings with four-foot sides have similarly intricate surfaces and complex perceptual effects. For the field in *Rock-Ola* of 1964, Chamberlain sprayed a panel of Masonite with several priming layers, then dozens of coats of purple Ditzler metal-flake lacquer, and finally about thirty layers of clear topcoat in order to "bury the flake to make it look suspended" (fig. 3.8).<sup>240</sup> A green and a gray right-angled stripe cut in from either

<sup>238</sup> Chamberlain in Esmay and Kohn, interview; and Chamberlain in Tuchman, "Interview," 39. See also Obrist, *John Chamberlain*, 121–22.

<sup>&</sup>lt;sup>239</sup> Chamberlain in "Excerpts," 19.

<sup>&</sup>lt;sup>240</sup> Chamberlain in Francesca Esmay, notes from a conversation with John Chamberlain, February 25, 2005, Chinati Foundation archives, Marfa, Texas, unpaginated (fourth page). See also Esmay and Kohn, interview.

side. Two angular chromed attachments sit just above the painted surface and reflect it. Chamberlain summarized the diverse visual phenomena that result from these five components:

There was the field, there were two painted bars and then two chrome bars that stood up. But if you counted everything going all the way across, you could count up to thirty: thirty different changes, thirty different notations—how the light struck, how the light changed the field or changed the painted bar, then the bar itself and the reflection, and so on.<sup>241</sup>

Chamberlain's inventory compounds as one draws nearer. At an inch or two away, the previously uniform purple reveals glinting specks of violet, red, and gold. The green stripe turns out to have a great deal of gold glitter and scattered bits of red. And whereas the purple and green hues derive from multicolored metallic particles in colorless lacquer, the gray stripe consists of far fewer and solely gray flecks in gray binder, tinted purple by

<sup>&</sup>lt;sup>241</sup> Chamberlain in Sylvester, "Auto/Bio," 18. Earlier, Chamberlain quipped, "Five units, two angles, 30 changes." (Elizabeth C. Baker's account suggests that the "two angles" here may refer to the shadows cast by the chromed attachments. Presumably, those attachments, the two painted angles, and the field constitute the "five units," as they did in Chamberlain's later statement.) See Baker, "The Chamberlain Crunch," *Art News* 70, no. 10 (February 1972): 60. Chamberlain's rough formula was that "you take five parts and make interchanges that multiply by six" to get thirty changes. See Chamberlain in Sylvester, "Auto/Bio," 18.

the underlying ground but otherwise opaque. All in all, the green and purple have more sparkle than sheen, the gray more sheen than sparkle.

Moving sideways in front of the paintings brings about additional optical variation. The pieces "change color as the light changed [and] as you walk past them," Chamberlain noted.<sup>242</sup> In an untitled large work from 1964, the ground's green, gold, and red flakes twinkle erratically since suspended within the lacquer facing every direction (fig. 3.9). Even so, the surface darkens in unison as one's viewpoint swings from front to side (fig. 3.10). To further multiply the versatility of his paintings, Chamberlain recommended experimenting with their orientation on the wall, turning the support ninety-degrees and hanging it sideways or rotating it forty-five degrees to sit at an angle (figs. 3.11, 3.12). "It alters your perception," he said, "if you need it altered."<sup>243</sup> Looking anew can mean making

<sup>&</sup>lt;sup>242</sup> Chamberlain in "Excerpts," 19.

<sup>&</sup>lt;sup>243</sup> Chamberlain in Esmay and Kohn, interview. Turning a printed reproduction of a large lacquer painting in his hands, Chamberlain asked, "Did you ever hang them this way [turned ninety-degrees]? Have you ever hung them on the corner [turned forty-five degrees]? Hang them like that. I always liked them that way. ... It alters your perception—if you need it altered." For instance, *Conrad* (1964) appears to be hung parallel to the floor in Lippard, "New York Letter," 53, and in Robert Smithson, "Entropy and the New Monuments," *Artforum* 4, no. 10 (June 1966): 30, but turned 135 degrees counterclockwise and sitting at an angle in *Documenta* 7, 2 vols. (Kassel: Paul Dierichs GmbH & Co KG, [1982]), 1:36.

The smaller lacquer paintings, named after rock-and-roll bands, have two possible rotations. Chamberlain said that they should be "hung east to west," with the two sets of nine squares to the left and right (Steve Cossman, John Chamberlain studio, statements to author, April 18, 2007). *Righteous Bros*, *The Rain Drops* (1965), *Four Seasons*, and *Ray Charles* (ca. 1964) are turned 180 degrees from Sylvester, "Auto/Bio," 18–19, to Schwarz, *John Chamberlain*, 48–51. However, Sylvester also switched the paintings' titles by mistake: *Righteous Bros* is listed as "*Raindrops*," *The Rain Drops* is listed as "*Four Seasons*," *Four Seasons* is listed as "*Ray Charles*," and *Ray Charles* is listed as "*Righteous Brothers*." As far as inconsistency in the titles

discoveries about the ways things look and the ways things are, as Chamberlain attested. "Art," he declared, "is one of the few things in the world that is never boring. . .. You just have to perceive it." 244

## II. Intellectual Thinking and Intuitive Thinking

Intellect comprises reason, judgment, cogitation. Intuition encompasses instincts, quick impressions, instantaneous cognition. These two methods of knowing remain intertwined and largely indistinguishable when an artist manipulates material and when a viewer perceives phenomena. Nevertheless, Chamberlain proposed a provisional separation and acknowledged the paramount importance of intuition in his artmaking: "I deal with new material as I see fit in terms of my decision making, which has to do primarily with sexual and intuitive thinking. . . . The intellectual and emotional aspects have little role in my work." But Chamberlain neither celebrated intuition nor dismissed intellect

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themselves—*Righteous Bros* versus "*Righteous Brothers*," *The Rain Drops* versus "*Raindrops*"—Schwarz confirmed that the first version in both of these pairs matches Chamberlain's inscriptions on the back of the paintings (statements to author, April 16, 2007). Finally, note that *Righteous Bros* and *The Rain Drops* are twelve-by-twelve-inch squares hung at an angle, making their height and width close to seventeen inches.

<sup>&</sup>lt;sup>244</sup> John Chamberlain, 1982 statement for visitor information sheet, Chinati Foundation, Marfa, Texas.

<sup>&</sup>lt;sup>245</sup> Chamberlain, 1982 statement. In a later interview, Chamberlain said, "I always get the feeling that I just run on intuition and use that as a general mediator among emotion and

outright. Instead, he implied a subtler distinction between intuitive thinking, where intellect evaluates intuitions against visual and material facts, and intellectual thinking, where intellect comes unmoored from the evidence before one's eyes.

As a student at Black Mountain College in the mid-1950s, Chamberlain practiced an extreme form of intuitive thinking. "I had this collection of words that I liked to look at," he recounted. "It didn't matter what they meant, I liked the way they looked [. . . for instance,] with a lot of p's or o's." 'If the word is 'beauty,'" he ventured, "it can become 'beautiful.' Then it can become 'beauteous,' can't it? Or 'beautification.' [. . .] The word looks nice to you. Maybe you don't even care what the word means." Chamberlain's straightforward explanation downplays his striking inversion of printed text, a mode of communication that usually solicits intellectual thinking to convert letters into ideas. Upon seeing the word "beauty," for example, most of us comprehend

sexuality and drive. (We have to leave out intelligence, because I really don't exercise too much of that.)" See Chamberlain in Sylvester, "Auto/Bio," 24. While Chamberlain minimized the significance of intellect and intelligence in both quotes, he seems to have reconsidered the importance of emotion in his working process.

<sup>&</sup>lt;sup>246</sup> Chamberlain in Sylvester, "Auto/Bio," 11; and Chamberlain in Paul Gardner, "Do Titles Really Matter?," *Art News* 91, no. 2 (February 1992): 95. See also Michael Auping, "An Interview with John Chamberlain," *Art Papers* 7, no.1 (January–February 1983): 2; Clearwater, interview, 24; and Obrist, *John Chamberlain*, 69, 111.

<sup>&</sup>lt;sup>247</sup> Ibid., 16 (phrases reordered). Chamberlain offered another example: "'The Vocabulary of Red,' 'The Oyster of Nonsense.' The words look good and they have a nice feeling together but no one quite knows what the meaning is, which is really what I want." See Chamberlain in Esmay and Kohn, interview.

one or more aspects of its dense meaning as opposed to concentrating upon and continuing to ponder its visual form on the page. We fail to notice a word's p's and o's whereas Chamberlain cultivated his intuitive attraction to the look of these letters. In so doing, he engaged intellect to halt interpretation rather than to start it. He kept looking, longer and closer than usual, at something that we do not normally pay much attention to.

Some art critics and historians, on the other hand, may be tempted to instantly interpret unfamiliar art as they would a word, using intellect not to grasp the singular qualities of a painting or sculpture but to assimilate the work with visual phenomena they have seen before. In the early 1960s, some writers read in Chamberlain's early constructions a narrative concerning car crashes and a trite rebuke of Americans and their automobiles. Responding to pieces such as *Hidden Face* and *Velvet White* of 1962 (figs. 3.13, 3.14), one reviewer commented:

[Chamberlain] translates painting into a fantastic collage medium (insulting the car, our hallowed status symbol) that is recalcitrant and must be hammered, ripped, squashed, etc. Each fragment of automobile is made an extreme of human exasperation, torn at and fought all the way, and has its rightness of form as if by accident. Any technique that requires order or discipline would just be the

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human ego. No, these must be ego-less, uncontrolled, undesigned and different enough to give you a bang—fifty-miles-an-hour around a telephone pole.<sup>248</sup>

Treating the art as a car became a frequent conceit, ostensibly validated by the automotive origin of some of the scraps.<sup>249</sup> At first sight, colored sheet metal bent in a hydraulic press just might resemble a wreck.<sup>250</sup> Intellect can then either test this impression through closer visual examination or turn at once to exploring its evocations without taking another, closer, and longer look.

Chamberlain preferred the former choice, intuitive thinking. He noted how upon seeing the sculptures, "people say, 'Oh, that looks like my old Mustang

<sup>&</sup>lt;sup>248</sup> E[dgar], "John Chamberlain," 15.

<sup>&</sup>lt;sup>249</sup> See, for instance, J[udd], "John Chamberlain" (1960), 57; Barbara Butler, "Movie Stars and Other Members of the Cast," Art International 4, nos. 2–3 ([February–March] 1960): 52; Françoise Choay, "Lettre de Paris," Art International 4, no. 9 (December 1, 1960): 36; and "Chamberlain's Automobiles," Metro 2 (May 1961): 90–91. Irving Sandler's art criticism identified this trend and rejected it. Chamberlain's "pieces might be witty and mordant monuments commemorating highway crashes, the tragic evidence of man's inability to cope with the machine. [Yet] the images suggested by industrial wreckage are as unimportant as the geological associations evoked by the marble in classical Greek statues." See Sandler, "In the Art Galleries," 12; and similar discussion in I[rving] H[ershel] S[andler], "John Chamberlain," Art News 58, no. 9 (January 1960): 18; Irving Hershel Sandler, "Ash Can Revisited, a New York Letter," Art International 4, no. 8 (October 25, 1960): 28-30; Irving H. Sandler, "New York Letter," Art International 5, no. 9 (November 20, 1961): 54; and I[rving] H[ershel] S[andler], "John Chamberlain and Frank Stella," Art News 61, no. 8 (December 1962): 54. Early on, Barbara Rose wrote a corrective essay in which she cited and blamed a Museum of Modern Art placard placed next to Chamberlain's Essex, which read: "Excepting the American woman, nothing interests the eye of an American [man] more than the automobile, or seems so important to him as an object of aesthetic appreciation. Like men, automobiles die." See Barbara Rose, "How to Look at John Chamberlain's Sculpture," Art International 7, no. 10 (January 16, 1964): 36.

<sup>&</sup>lt;sup>250</sup> See footage of Chamberlain and an assistant operating his press in "Walking Tour Dia," video recording, Chinati Foundation archives, Marfa, Texas, at 15:46, 17:40, 50:32.

there." His reply: "It doesn't look like their old Mustang at all." Intuition can be wrong. A sense of seeming similarity or apparent disparity arising from a quick glance may collapse after more thorough perceptual investigation of an object's material properties and visual phenomena. After all, it must be said that the sculptures do not resemble wrecked cars in the least. There are no seats or upholstery, no tires or axles, no glass or plastic, no engine or instruments. When encountering Chamberlain's sculptures, one may feel an urge to grasp after familiarity at any cost rather than acknowledging the novelty of the unaccustomed visual phenomena (and also one's inevitable and blameless ignorance when faced with such sensory input).

Perhaps the most likely reason for this response is that most of the time such shortcuts work perfectly well when perceiving the world in the course of everyday life. Roger Fry, for one, identified extreme perceptual economizing as a fundamental and indeed necessary property of what he termed practical, ordinary, and everyday vision. Mostly, we look only to identify meaningful objects amid the chaotic visual flux. We glance about and trust casual inferences, the quicker

<sup>&</sup>lt;sup>251</sup> Chamberlain in Marcia Corbino, "Creating Art from Industrial Waste," *Florida West* (January 18–24, 1981): 16, in *Sarasota Herald-Tribune* (January 18, 1981). Michael Auping first cited this source in "John Chamberlain: Reliefs 1960–1982," *John Chamberlain: Reliefs 1960–1982*, 12, n. 16.

<sup>&</sup>lt;sup>252</sup> See Roger Fry, *Vision and Design*, 1920 (Reprint, New York: Meridian Books, Inc., 1956), 18–20; and related discussion in the "Development of Vision" section in Chapter 1 above.

the better for making decisions and taking action. And the fact that we collapse all manner of distinctions proves to be no cause for alarm since we have years of experience in the world to help us fill in the gaps.

As this perceptual economizing becomes habitual and instantaneous, we end up paying very little attention to what is really out there and how it actually looks. Fry recognized the risk of such a utilitarian way of seeing: he believed that one will rarely study an object unless it exists for no other reason than to be studied.<sup>253</sup> But herein lies the problem. Practical, ordinary, everyday vision may continue to prevail even when we look at art, thereby concealing extraordinary visual phenomena, obscuring discovery, and smothering new knowledge.

Chamberlain offered one solution to avoid this objectionable result when perceiving new visual phenomena in art: you just have to perceive. Whether one sees a sculpture or a Mustang at first glance, take another look. Chamberlain tested and corroborated his intuition with intellect, confirming the physical incongruities between his sculptures and wrecked cars. "None of [the pieces] really look like they're smashed together," he pointed out. "What it looks like, to me, is that they were put together." Here intuitive thinking vets the allusions

<sup>253</sup> For Fry, an object to be studied, such as a work of art, "invites pure vision abstracted from necessity." Fry, *Vision and Design*, 24–25.

<sup>&</sup>lt;sup>254</sup> Chamberlain, 1982 statement.

<sup>&</sup>lt;sup>255</sup> Chamberlain in Creeley, interview, 19.

that overexcite intellectual thinking. Just painted metal put together, Chamberlain insisted, not car parts smashed together. <sup>256</sup> If ignored, this and other material attributes and visual phenomena may begin to seem negligible and escape notice entirely. Chamberlain's work then starts to look like what it is not—a de Kooning painting, a car accident, an old Mustang—instead of what it is. And so one learns nothing new. The eyes fail to perceive unfamiliar phenomena and the work looks ordinary, a rehashing of themes investigated earlier by others. "My idea about art was that it was unprecedented knowledge," Chamberlain submitted, refuting even the possibility of such responses to his own art. "I make something [and] I really get the feeling that I haven't seen that before."

<sup>256</sup> "It's just painted sheet metal," Chamberlain claimed. "No engines, no tires, no wheels, no drive chains." See Grace Glueck, "Art People," *New York Times* (January 5, 1979): C16. Chamberlain also identified his material as "painted metal" in a 1982 statement and "colored metal" during an interview in which he expressed frustration at the persistent readings of car wrecks:

The only response I ever got was that I was making automobile crashes and that I used the automobile as some symbolic bullshit about our society. ... Everyone kept insisting it was car crashes. ... It seems no one can get free of the car-crash syndrome. For twenty-five years I've been using colored metal to make sculpture, and all they can think of is, "What the hell car did that come from?" Who gives a shit what car it came from?

See Chamberlain in Sylvester, "Auto/Bio," 21. In other interviews, Chamberlain acknowledged the metal's origin but also his efforts to neutralize this aspect. "The fact that I used car sheet metal and bumpers had a lot to do with people deciding that they were car crashes, which actually they weren't. [...] I try to suppress some of the idea about where this material comes from." See Chamberlain in *Who Gets to Call it Art?*, Arthouse/Palm Pictures film, 2005, at 29:48; Chamberlain in Corbino, "Creating Art," 16; as well as "Art as Invention," 4, and Obrist, *John Chamberlain*, 102.

<sup>&</sup>lt;sup>257</sup> Obrist, John Chamberlain, 90.

When confronted with an unknown work, just perceive it. The tacit restriction of intellectual thinking in Chamberlain's advice unsettles ingrained habits of vision. <sup>258</sup> Preoccupied by what art means, writers may distrust the immediacy of unstructured perceptual phenomena or worry about missing some hidden significance. To hedge, they sometimes contrive meaning—ostensibly profound readings that only refashion commonplace knowledge. With Chamberlain's pieces, intellectual thinking seems especially appealing because the materials themselves are more suggestive than most. Likewise, the rich connotations of Chamberlain's words may distract from the actual objects. "The assembly is a fit, and the fit is sexual," he said of the sculptures. "If you look at them carefully, they have a certain erotic tone to them." <sup>259</sup> Chamberlain was specific—a sexual *fit* and an erotic *tone*, qualities of his metal sculptures in particular as opposed to everything else the words "sex" and "erotica" evoke. Aroused by such concepts, art critics and historians often pass up a careful look in favor of overwrought and yet reductive explanation, as with the frequent mentions of car crashes.

<sup>&</sup>lt;sup>258</sup> See related discussion in the "Development of Vision" section in Chapter 1 above, particularly regarding Roger Fry's distinctions between four kinds of vision. Roger Fry, *Vision and Design*, 1920 (Reprint, New York: Meridian Books, Inc., 1956), 48–51.

<sup>&</sup>lt;sup>259</sup> Chamberlain in an October 1, 1981, conversation with Michael Auping, as cited in Auping, "John Chamberlain: Reliefs," 12; and Chamberlain in *Who Gets to Call it Art?* at 30:04. See also "Excerpts," 17–18; Corbino, "Creating Art," 16, 21; Chamberlain, 1982 statement; Sylvester, "Auto/Bio," 24; Clearwater, interview, 13–14; Creeley, interview, 22; "John Chamberlain in Conversation with Klaus Kertess," 11; and Obrist, *John Chamberlain*, 39, 115.

Chamberlain warned against this routine. "If a thing is made intuitively, then why look at it intellectually?," he mused. "You may be missing the point. In order to be intellectual, you want to make up a point which is not really there."<sup>260</sup> Thinking and reasoning can serve other ends. As one perceives a work of art, intellect may affirm the complexity and uniqueness of visual phenomena while also considering underlying premises—in part by attending to intuitive impressions. Chamberlain's description of his large lacquer paintings provides a model of intellect examining and refining intuition of what is really there, instead of retreating to cultural or art-historical clichés. Some general notion of Rock-Ola's visual intricacy is immediately evident. Chamberlain's parsing of this cursory impression into "thirty different changes" constitutes discovery of new knowledge about its perceptual properties. Of course, intellectualizing about intuition enables intuition itself to escape one's grasp. Asked, "have you developed your sense of intuition, or just your ability to follow and trust it?," Chamberlain found the question wrongheaded. He answered, "I've gotten to the point where I don't even trust intuition. It just happens."<sup>261</sup> Unlike Chamberlain, most of us need intellectual resolve to heed intuition when viewing art. Just perceive it, he said; take a look and then take another.

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<sup>&</sup>lt;sup>260</sup> Chamberlain in Corbino, "Creating Art," 17.

<sup>&</sup>lt;sup>261</sup> Kohn and Chamberlain in Esmay and Kohn, interview.

#### III. Judd on Chamberlain

Donald Judd refuted the separation of intellect and intuition—which he called thought and feeling, respectively. "All thought involves feeling. All feeling is based on experience, which involves thought. [. . .] It's all one," he contended. This account of how one starts with sensory phenomena and arrives at knowledge resembles the interplay that Chamberlain called intuitive thinking. Exercising intellect and intuition in tandem, Judd studied the visual features of Chamberlain's art, which then guided ensuing inquiry into its wider propositions. Nine writings between 1960 and 1989 demonstrate Judd's sustained

<sup>&</sup>lt;sup>262</sup> Donald Judd, "Yale Lecture, September 20, 1983," *Res: Anthropology and Aesthetics* 7/8 (Spring/Autumn 1984): 150; and Judd in Jochen Poetter, "Back to Clarity: Interview with Donald Judd," *Donald Judd* (Baden-Baden, Germany: Staatliche Kunsthalle Baden-Baden, 1989), 91. See also Judd, "Yale Lecture," 147; Donald Judd, "Abstract Expressionism," BBC Television program for The Open University, 1983, at 7:50; Donald Judd, "A Long Discussion Not About Master-Pieces but Why There Are So Few of Them, Part 1," *Art in America* 72, no. 8 (September 1984): 11; Angeli Janhsen, "Discussion with Donald Judd," *Donald Judd* (St. Gallen, Switzerland: Kunstverein St. Gallen, 1990), 51, 54, 55; Donald Judd, "Josef Albers," *Josef Albers* (Marfa, Tex.: The Chinati Foundation, 1991), 11; and *Donald Judd's Marfa Texas*, Arthouse/Palm Pictures film, 1997, at 18:12.

<sup>&</sup>lt;sup>263</sup> Judd remarked that philosopher Benedetto Croce "considers intuition cognitive in its own way, which improves the word enormously." See Judd, "Yale Lecture," 150.

interaction with Chamberlain's work, including paintings and sculptures in his personal collection and at the Chinati Foundation in Marfa, Texas.<sup>264</sup>

Judd perceived phenomena in Chamberlain's art that other commentators overlooked, but he always had difficulty finding words to suit his experience.

Concepts he primarily felt and intuited became communicable in language only after much intellectual deliberation. In his preface for Chamberlain's 1989 exhibition catalogue, Judd declared, "I write, but for myself; with some difficulty I've worked that [writing] around to where it[']s mine, as has to happen in [one's

<sup>&</sup>lt;sup>264</sup> The nine sources are: J[udd], "John Chamberlain" (1960), 57; J[udd], "John Chamberlain" (1962), 48; Judd, "Chamberlain: Another View," 38–39; [Donald Judd], "John Chamberlain," in Philip Johnson, "Young Artists at the Fair and at Lincoln Center," *Art in America* 52, no. 4 (August 1964): 117; D[onald] J[udd], "John Chamberlain," *Arts Magazine* 38, no. 10 (September 1964): 71; Donald Judd, "Local History," *Arts Yearbook* 7 (1964): 31–32; Donald Judd, "Specific Objects," *Arts Yearbook* 8 (1965): 82; Donald Judd, "John Chamberlain," *7 Sculptors* (Philadelphia: Institute of Contemporary Art, [1966]), 8–9; and Donald Judd, "John Chamberlain," *John Chamberlain: New Sculpture* (New York: The Pace Gallery, 1989), i, x–xi. Note the different placement of discussion on Chamberlain in "Specific Objects" as reprinted in Donald Judd, *Complete Writings* 1959–1975 (Halifax: The Press of the Nova Scotia College of Art and Design, 1975), 183. Also, Philip Johnson seems to have composed the introduction to "Young Artists at the Fair and at Lincoln Center" but Judd, uncredited, wrote the brief entries for each artist, as reprinted in Judd, *Complete Writings* 1959–1975, 130–31.

Judd owned several works by Chamberlain, including the metal sculptures *Mr. Press* (1961), *Hollywood John* (1962), *Buckshutam* (1963), and *Calla Look* (1980); a small square-foot lacquer painting titled *Miracles* (1964); *Rock-Ola*, *Toureiro*, *Zia* and three other untitled large lacquer paintings with four-foot sides, all from 1964; an immense urethane foam piece titled *Judd's Couch* (1967); and a lacquer on board *Morgansplit Painting* (1970). From the beginning, Judd envisioned the Chinati Foundation as a means to permanently install a large number of Chamberlain's pieces. The former Marfa Wool and Mohair Building now houses twenty-three objects made between 1972 and 1982. See [Donald Judd], "A Portrait of the Artist as His Own Man," *House & Garden* 157, no. 4 (April 1985): 220; Don Judd, "The Chinati Foundation," *The Chinati Foundation* (Marfa, Tex.: The Chinati Foundation, 1987), unpaginated (third page); Julie Sylvester, "Catalogue Raisonné of the Sculpture," in Sylvester, *John Chamberlain*, 63, 68, 74, 175, 219, nos. 83, 117, 151, 644, and appendix no. I; *Post-War and Contemporary Art (Morning Session), Wednesday 10 May 2006* (New York: Christie's, 2006), 66, lot 139; and Craig Rember, Judd Foundation, statements to author, August 25, 2006.

personal encounter with] art, but, ambiguously, since writing remains communication." There's a big difference between thinking about someone's work and thinking about it in a way that others can understand," he maintained. 266

By looking closely, intently, and repeatedly, Judd ensured that the phenomena before his eyes guided his experience. He focused on the unconventional and therefore almost ineffable visual properties of Chamberlain's objects. For instance, Judd never arrived at the right word to relate how the large lacquer paintings are, as he put it, "not austere," a phrase at which he immediately wavered, "or whatever that quality is" (fig. 3.15). 267 These pieces struck Judd as "immoderate" and "elegant in the wrong way," which in his art-critical lexicon counted as high praise, that is to say, the right way. 268 Judd redefined common words and improvised new ones to help intellect communicate intuitions about

<sup>&</sup>lt;sup>265</sup> Judd, "John Chamberlain" (1989), i (supplemented for clarity).

<sup>&</sup>lt;sup>266</sup> Don Judd, "Jackson Pollock," *Arts Magazine* 41, no. 6 (April 1967): 32. Along with his writings on Chamberlain, Judd selected several passages from his article "Jackson Pollock" to be reprinted in the 1989 Pace Gallery catalogue. He did not include this sentence, however.

<sup>&</sup>lt;sup>267</sup> Judd, "John Chamberlain" [1966], 9. Earlier, Judd said of his own art, "I certainly want it to be austere somewhat but that's a very loose word." See Judd in Bruce Glaser, "New Nihilism or New Art," audio recording, February 15, 1964 (North Hollywood, Cal.: Pacifica Radio Archives, Archive Number BB3394), at track 4, 0:58. Caroline Jones first cited the audio recording of this source in *Machine in the Studio: Constructing the Postwar American Artist* (Chicago: The University of Chicago Press, 1996), 169, 415, n. 152.

<sup>&</sup>lt;sup>268</sup> Ibid. For examples of Judd's pejorative use of "moderate" and "elegant," see Judd, "Jackson Pollock," 34; and D[onald] J[udd], "N. Fukui" *Arts Magazine* 39, no. 6 (March 1965): 68.

what he perceived. "It's necessary to build ways of talking about the work[, . . .] to isolate and construct verbally communicative ideas," he explained. 269

In order to articulate his perceptual experience of Chamberlain's sculptures, such as *Miss Lucy Pink* of 1962, Judd developed the idea of a "three-way polarity" among their "neutral, redundant[,] and expressively structured" aspects (figs. 3.16, 3.17).<sup>270</sup> He described these three properties and their polarity further:

[First,] a piece may appear neutral, just junk, casually objective, pretty much something as anything is something. [Second,] the sculpture is redundant, voluminous beyond its structure, obscured by other chances and possibilities. There is more metal and space than the structure requires. [Third,] much of that metal becomes simply expressive, through its structure and details and oblique imagery.<sup>271</sup>

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<sup>&</sup>lt;sup>269</sup> Donald Judd, "Jackson Pollock," *Complete Writings 1959–1975*, 195; and Judd, "Yale Lecture," 149. In the original version of "Jackson Pollock," the sentence reads, "it's *not* necessary to build ways of talking about the work...." (emphasis added). As printed, this phrase contradicts the previous claim in the text: "Discussion ... should be something of a construction." In the reprint of this article, there is no "not," apparently confirming that the word was an error in the original. Compare Judd, "Jackson Pollock," 32. See also Don Judd, et al., "Portfolio: 4 Sculptors," *Perspecta* 11 (1967): 44 (*Complete Writings 1959–1975*, 196, incorrectly lists the "March/May 1968" issue of *Perspecta*).

<sup>&</sup>lt;sup>270</sup> Judd, "Chamberlain: Another View," 39.

<sup>&</sup>lt;sup>271</sup> This quotation combines two similar passages on Chamberlain's "three-way polarity." See Judd, "Local History," 31; and Judd, "Chamberlain: Another View," 39.

Neutrality, redundancy, expressiveness, and three-way polarity serve as ad hoc art-critical concepts with which to convey perceptual knowledge. As with "Rooseveltianly," these quirky terms address both the appearance and basic principles of the art at hand. Neutral means both made of junk and "casually objective" like junk, instead of composed and contrived like many other artworks. Redundant means voluminous and billowing while also implying that a piece's final form suggests innumerable alternative "possibilities," as Judd put it. 272 And, expressive means expressionistic as well as illusionistic. The sculptures' nonfigurative "tumescent planes," "passionate" structure, and "turbulent" metal can also invoke "organic [...] imagery."<sup>273</sup> Only once, and in his first review, Judd compared Chamberlain's work to an "ordinary wreck" so as to emphasize the scrap metal's neutrality. 274 In later accounts, he seemed wary of unintended associations diverting discussion from the object one perceives. Judd improvised terms to characterize Chamberlain's sculptures, but, contrary to many writers, he then resisted the temptation to let language itself generate the art's meaning.

Unlike the metal constructions, Judd found no imagery in Chamberlain's lacquer paintings. He discussed these pieces with more reserved and exact words:

<sup>2</sup> Judd wrote that "the parts are not abso

<sup>&</sup>lt;sup>272</sup> Judd wrote that "the parts are not absolute definitions of their space but appear capable of change and of expansion and contraction." See Judd, "Chamberlain: Another View," 39.

<sup>&</sup>lt;sup>273</sup> Judd, "Chamberlain: Another View," 38–39 (phrases reordered).

<sup>&</sup>lt;sup>274</sup> Judd, "John Chamberlain" (1960), 57.

"just the paint," "just plain surface," "just a case of one thing over another." 275

Here, speaking about the paintings in 1971, Judd struggled to restrict language, to avoid abstractions, and to establish the visual and material attributes of the pieces in preparation for contemplating the broader meanings he intuited. In a 1966 catalogue essay, for example, he examined the "neutrality, chance and disorder" of the large lacquer works (figs. 3.18, 3.19). 276 Chamberlain placed Zia's chromed angles in a simple "arrangement" with more chance and less order, Judd argued, than the "somewhat traditional [. . .] rationalistic structure" of the sculptures' fitted scraps. 277 The various components of the paintings manifest a curious neutrality, a different sort than the neutrality of crumpled metal. Although Zia's protruding chromed elements command attention, Judd regarded them as "less important than they are conspicuous" since from some positions they are "diminished considerably in reflecting the surface of the square [and] of the painted angles." Zia's metal attachments, red and orangy-brown painted bars,

<sup>&</sup>lt;sup>275</sup> Judd in "Excerpts," 19–20.

<sup>&</sup>lt;sup>276</sup> Judd, "John Chamberlain" [1966], 9. In this essay, Judd called the large lacquer paintings "reliefs" because of their attached metal angles, a confusing practice given that Chamberlain made so many sculptural works such as *Essex* and *Dolores James* that hang from the wall and seem a better fit for that word. See also Judd, "John Chamberlain" (1989), x, xi.

<sup>&</sup>lt;sup>277</sup> Ibid.

<sup>&</sup>lt;sup>278</sup> Ibid.

and red field all stay "fairly equal" and "neutral." <sup>279</sup> In Judd's opinion, this equitable combination constituted an advance over the hierarchical balancing of "traditional form" in previous painting. <sup>280</sup>

Intuitive thinking, both thought and feeling together, allowed Judd to comprehend and communicate what he perceived when studying Chamberlain's paintings. His inquiry moved from visual facts to wider significance, from reflections off chrome to Zia's neutrality, chance, and disorder. Yet there he stopped. Judd's terms retain incidental connotations as all words do, but he limited their scope as best he could to what perceiving the work would verify. The appeal of intellectual interpretation often lures viewers away from such precision. Take a paragraph on the large lacquer paintings by another artist-writer, Robert Smithson:

Chamberlain's use of chrome and metal-flake brings to mind the surfaces in "Scorpio Rising," Kenneth Anger's many-faceted horoscopic film about constellated motorcyclists. Both

Chamberlain and Anger have developed what could be called

California surfaces. In a review of the film, Ken Kelman speaks of "... the ultimate reduction of ultimate experience to brilliant

<sup>&</sup>lt;sup>279</sup> Ibid.

<sup>&</sup>lt;sup>280</sup> Ibid.

chromatic surface; Thanatos in Chrome—artificial death . . ." in a way that evokes Chamberlain's giddy reliefs. 281

Chrome and metal-flake, real material features of *Conrad* and *Zia*, inspired Smithson's intriguing chain of allusions—first motorcycles' surfaces, next a motorcycle film, then a film review, and finally the film reviewer's theme of death by decadence. This enticing fluidity of meaning has a downside, however. Words suggest other words, deceptively insinuating visual parallels where in fact discrepancy predominates. In order to explore these rich associations, Smithson had to forswear some of "what is there" (to use Judd's words, and echo Chamberlain's) such as the visual disparity between Chamberlain's nonobjective paintings and Anger's narrative film. In his own commentary on Chamberlain's art, Judd distinguished features and works that seem similar at first glance. This approach enabled him to make unexpected

<sup>&</sup>lt;sup>281</sup> Smithson, "Entropy and the New Monuments," 30 (ellipses in original). See also Ken Kelman, "Thanatos in Chrome." *Film Culture* 31 (Winter 1963–1964): 7.

<sup>&</sup>lt;sup>282</sup> Richard Shiff defined the rhetorical phenomenon and art-critical strategy of "metonymic drift" as "the capacity for the meaning of an event or sign to pass readily from what appears to be its initial context or location to another location that is in some sense contiguous or adjacent. There need be no essential connection other than the fact that the two locations are aligned, perhaps only by chance." See Shiff, "Breath of Modernism (Metonymic Drift)," in Terry Smith, ed., *In Visible Touch: Modernism and Masculinity* (Chicago: The University of Chicago Press, 1997), 189.

<sup>&</sup>lt;sup>283</sup> Judd, "Jackson Pollock," 34. See also Chamberlain in Corbino, "Creating Art," 17, as cited above.

discoveries instead of explaining away new phenomena through ostensible similarity with prior experience.

# IV. Three Kinds of Depth

One of Judd's discoveries in particular sets Chamberlain's lacquer pieces apart from most other paintings. An expanse of stretched canvas or fiberboard tends to appear slightly spatial once painted, as if one can see into it. This strictly visual depth belies the actual thinness of the support and paint. For instance, Willem de Kooning's untitled oil on canvas work of 1962 depicts an abstracted and flattened but still seemingly tridimensional landscape in perspective (fig. 3.20). In contrast to de Kooning's representation of space, Josef Albers' *Homage to the Square: Awakening* of 1963 gives rise to a non-imitative chromatic space between a projecting yellow and a receding gray (fig. 3.21). Judd argued that Chamberlain's paintings diverge from both of these examples. To his eyes, *Ray Charles* and *Rock-Ola* have neither perspectival depth nor chromatic depth but rather a third kind, real depth (fig. 3.22). When Judd looked closely, the accumulated lacquer in Chamberlain's paintings looked only as deep as it really is.

Prior encounters with other artworks helped Judd locate unfamiliar sensations in Chamberlain's paintings. For others, existing art-critical terminology concealed the disparity between the varieties of space Judd perceived. Critic Lucy Lippard thought she recognized a familiar technique in *The Rain Drops* of 1965 and the other small lacquer paintings, a "use of close-valued or contrasting colors for recession or projection from the glinting surface" (fig. 3.23). <sup>284</sup> In a 1971 roundtable on Chamberlain's work, art critic Elizabeth Baker also remarked on "a kind of optical depth" in the paintings. <sup>285</sup> Judd, another participant, disagreed:

If you add a slight layer [of lacquer] here, you've got something to see into. But that's a physical thing, it's not that you're creating two or three inches of illusionary space alongside. [. . .] Like putting a little liquid on the table, you don't change the surface, it's just a case of one thing over another and it's the same surface. . . .

What you're looking into is really just the paint—the two or three layers of lacquer, that's all. 286

<sup>&</sup>lt;sup>284</sup> Lippard, "New York Letter," 53.

<sup>&</sup>lt;sup>285</sup> Baker in "Excerpts," 20. Baker may have been speaking loosely here since in a later article she agreed with Judd that the lacquer paintings' depth is material, not optical: "One looks *into* the surface to see the form [of the small squares]—which nevertheless remains depth-less—a strange effect." See Baker, "The Chamberlain Crunch," 60 (emphasis in original).

<sup>&</sup>lt;sup>286</sup> Judd in "Excerpts," 19–20 (phrases reordered).

Real depth, Judd affirmed, not illusion. Along with the reports of chromatic and optical space that he disputed, Judd's counterexample of an illusionary space several inches deep befits Albers' *Homage to the Square* series. Chamberlain acknowledged the influence of these pieces, saying, "I like Albers['s] work . . . and I felt that [my paintings] came closest to it without any of his problems. [. . . ] I didn't like the dot, dot, dot [stepwise recession]. It took away from being flat." The color relationships and stepped structure of *Homage to the Square:*\*\*Awakening\*\* create the illusion of a space beyond its actual surface. Chamberlain's lacquer appears no deeper than it is and thus looks flatter than Albers' oils.

\*\*Admittedly\*\*, the distinction here is far slighter than the obvious disparity between Chamberlain's sculptures and wrecked Mustangs. And yet common principles abide: discovery results from paying attention to exactly what a work looks like and from engaging intellect to consider intuitive impressions.

Intellectual thinking and art-historical abstractions predominate in Lippard's 1965 account of Chamberlain's paintings, as when she argued that the large pieces' "garish simplicity" exemplified the "absorption of pop art principles into the non-objective idiom." Elsewhere, like Judd, Lippard used connotative

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<sup>&</sup>lt;sup>287</sup> Chamberlain in "Excerpts," 20; and Chamberlain in Esmay and Kohn, interview, (supplemented for clarity). During the interview, Chamberlain moved his straightened hands closer together three times as he said "dot, dot, dot," in imitation of the concentric bands and square in Albers' *Homage to the Square* paintings.

<sup>&</sup>lt;sup>288</sup> Lippard, "New York Letter," 53.

language to describe Chamberlain's palette. The hues of the paintings are those of "restaurant decorators"; their surface calls to mind "House and Garden, kitchenware, ceramic-ashtray[s]."289 Whereas Judd's references to Detroit and Roosevelt led discussion back to color, Lippard's interpretations—like Smithson's—drifted away from the visual and material facts, putting her account at risk of mischaracterizing the phenomena she saw before her. Chamberlain's "use of metal flecks is, finally, just industrial pointillism," she concluded. <sup>290</sup> But tiny metal flakes suspended in the lacquer of *Miracles* seem to have little to do with industry and look quite different from Seurat's larger oil dabs on top of canvas (figs. 3.24, 3.25). Lippard's own invocations of tawdry diner interiors, magazines, utensils, and ashtrays may have lured her into reading the sheen of metal-flake lacquer as a "false richness." Although "all that glitters is not gold," as she put it, lacquer's luster is just as true to its material nature as gold's glitter.<sup>292</sup> Language's natural allusiveness can cause an artwork's visual attributes to resemble anything and everything they are not. Lippard passed up a second look and instead explored associations with things we already know. This mode of

<sup>289</sup> Ibid.

<sup>&</sup>lt;sup>290</sup> Ibid.

<sup>&</sup>lt;sup>291</sup> Ibid.

<sup>&</sup>lt;sup>292</sup> Ibid.

looking at and thinking about art often hinders perceptual discovery—as here, preventing one from learning what makes Chamberlain's paintings new, that is to say, everything about them that does not evoke what already exists.

When art criticism addresses unknown and unprecedented phenomena in a piece, both the reader and writer may make discoveries. Judd had asserted in his 1964 essay "Specific Objects" that "anything on a [painted] surface has space behind it. Two colors on the same surface almost always lie on different depths. [. . .] It's possible that not much can be done with both an upright rectangular plane and an absence of [illusionary] space." In Judd's own estimation,

Chamberlain's paintings proved him wrong. *Zia* is upright and rectangular but lacks the chromatic space he anticipated. "They're just plain surface," Judd said of the large lacquer paintings, "the colors of the painted angles don't react to the color they're on in the usual way; they don't come forward or recede." Using intellect to scrutinize his intuition of a different kind of spatiality, Judd made an

<sup>&</sup>lt;sup>293</sup> Judd, "Specific Objects," 76 (phrases reordered and supplemented for clarity). Regarding the date, Judd stated that this article "was published [in 1965] perhaps a year after it was written." See D[onald] J[udd], "Introduction," *Complete Writings* 1959–1975, vii.

<sup>&</sup>lt;sup>294</sup> Judd in "Excerpts," 19; and Judd, "John Chamberlain" [1966], 9. Elsewhere Judd was ambivalent. In late 1966, art critic and curator Barbara Rose asked him, "Do you think there is such a thing as a flat painting?" Judd answered, "No, there isn't, so far. I think it's probable that someone will manage to make one … but so far, no one has." In his 1989 catalogue essay, however, Judd recalled, "I wrote in '66 that Chamberlain's paintings and reliefs suggested alternatives to all the dead ideas of what to do with a discrete flat surface. They still do." See "Is Easel Painting Dead?," symposium transcript, November 1966, New York (Washington, D.C.: Barbara Rose Papers, Archives of American Art), 30; and Judd, "John Chamberlain" (1989), x. Also, see related discussion in the "Phenomena in Painting" section in Chapter 2 above.

innovative perceptual distinction. De Kooning's untitled painting has several feet of perspectival depth; Albers' *Homage to the Square: Awakening* has a couple inches of chromatic depth; Chamberlain's *Zia* has a millimeter of lacquer, real depth, and that is all.

## V. Conclusion: Perceive, Discover, Learn

Few reviewers besides Judd perceived the uncommon depth of Chamberlain's lacquer paintings. Often what is actually there appears on its own terms only for an instant, only as an intuition. If intellect embarks on interpretation without evaluating these impressions, an artwork's unique visual phenomena can begin to pass for those already known and named. Resemblance to other pieces obscures clear disparity. And so Chamberlain's paintings may look "Minimal" and "Minimalis[t]." Circumstantial evidence bolsters this reading inasmuch as Chamberlain exhibited with Frank Stella; he befriended Judd, Dan Flavin, and Larry Bell; the timing is right; and the pieces themselves are nonfigurative and schematic. <sup>296</sup> Curator Julie Sylvester put this question to

<sup>&</sup>lt;sup>295</sup> Ann Goldstein, "John Chamberlain," in Ann Goldstein, ed., *A Minimal Future? Art as Object,* 1958–1968 (Los Angeles: The Museum of Contemporary Art, 2004), 184–85; and Baker, "The Chamberlain Crunch," 60.

<sup>&</sup>lt;sup>296</sup> Chamberlain and Stella had a two-man exhibition at Leo Castelli Gallery from October 16–November 7, 1962. Chamberlain briefly referred to his friendships with Judd and Bell in

Chamberlain, asking, "Was there any conscious adherence to, or involvement with, the minimal art of that time?" He reminded her, "As far as a minimal phase, it wasn't so minimal. Each of the paintings contains about one hundred coats of paint."<sup>297</sup> Deadpan joke or frank reply, Chamberlain construed "minimal" according to its everyday usage as opposed to its clumsy art-historical definition. <sup>298</sup> Defying the allure for art critics and historians of populating such categories, Chamberlain upheld the incongruities between his art's physical properties and verbal classifications. A hundred coats of lacquer exceed a minimal amount so *Righteous Bros* is not a minimal painting (fig. 3.26).

Prior experience and established words serve as guides when coming upon unconventional art. The term Minimalist enables at least some understanding of what one sees when looking at Chamberlain's peculiar paintings: the material and

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Creeley, interview, 15, 21. Some artistic cooperation occurred as well. In 1970, Chamberlain started a group of tinted Plexiglas pieces using Bell's vacuum-coating chamber. Also, Sylvester asserted that Chamberlain made *Tippecanoe* (1967) out of stainless and galvanized steel from objects Judd had fabricated but discarded. Chamberlain himself remained ambiguous on the point. And, around 1985, Judd's unhappy relationship with the Dia Foundation brought Bell, Chamberlain, and Flavin together with Judd in Marfa, Texas. See Sylvester, "Catalogue Raisonné," 117; Sylvester, "Auto/Bio," 21; and Larry Bell, statement in *Artforum* 32, no. 10 (Summer 1994): 73, 114.

<sup>&</sup>lt;sup>297</sup> Sylvester and Chamberlain in Sylvester, "Auto/Bio," 18. Chamberlain continued, "Art is not minimal only because there is not a great deal of garbage involved in it."

<sup>&</sup>lt;sup>298</sup> See Richard Shiff, "Willem de Kooning: Same Change," in Karen Painter and Thomas Crow, eds., *Late Thoughts: Reflections on Artists and Composers at Work* (Los Angeles: Getty Research Institute, 2006), 37. Shiff related how de Kooning "us[es] the obvious meaning of a term to deflate pretentious notions[, which] implies that theories of art are absurdities and only obstruct work." Asked by filmmaker Emile de Antonio what "painterly" painting meant, de Kooning replied, "well, that you can see it's done with a brush."

visual properties of lacquer paint, juxtapositions of color unusual in both art and in the world, and non-representational imagery. But this intellectual shortcut can thwart perceptual discovery. Forcing unaccustomed phenomena to fit existing categories insinuates that nothing exists new of different enough to warrant new knowledge, a situation that seems unlikely ever to be the case with art or in life.<sup>299</sup> Chamberlain observed that using language to define his pieces can ruin the surprise of personal investigation, of just perceiving:

I never like to explain my work. I think that if I explain something, [a viewer might say,] "well, okay, that's it, I don't have to think anymore." If I don't explain anything, you still have your own act of discovery to exercise. . .. You're supposed to discover. There is no other place where you can exercise this facility. 300

Sustained perceptual investigation renders abstract terms inadequate and verbal explanations superfluous. Attending to phenomena themselves, as directly as

Our sense of history looks for conformities of act and effects, and in that respect does us poor service in the arts. ... You will not live long if you look always for what was there, assuming the world to be no more than the time track of your familiarities. ... What things are is, again, more complex, and more distinct than some incidental violence done you.

See Robert Creeley, "John Chamberlain," *Recent American Sculpture* (New York: The Jewish Museum, 1964), 17.

<sup>&</sup>lt;sup>299</sup> Poet Robert Creeley described the habit of mistaking new experience for previous knowledge when viewing Chamberlain's sculptures:

<sup>&</sup>lt;sup>300</sup> Chamberlain in Esmay and Kohn, interview, (supplemented for clarity). See also Clearwater, interview, 16, 27–28, 38; and Obrist, *John Chamberlain*, 39, 63.

possible, yields discovery. For curious viewers, Chamberlain recommended a failsafe alternative to relying on words—dust one of his sculptures.

I sort of advise anybody who takes one of my pieces [to] clean it at least once themselves because it's a form of gaining familiarity and knowing just what it is you've got. [...] Whoever does it is fortunate in one sense. They go slowly through everything so it's like they are actually going in and finding out little places and all of that, and they find out about how the sculpture is constructed.<sup>301</sup>

The examination Chamberlain describes is practical and physical, meticulous yet intuitive. In thinking through the variable visual and material qualities of the metal, one exercises a capacity for discovery that is, unlike language, inseparable from what one can see. Chamberlain's advice suits his paintings as well. Parsing *Rock-Ola*'s thirty changes and peering into the real depth of *The Rain Drops* provide a fresh visual experience, an encounter unlike looking at other paintings. As Chamberlain said, one just has to perceive.

Knowledge founded on perception must always stay flexible. Imposed intellectual interpretations often remain rigid, eliminating discrepancies if visual phenomena vary from that which is expected. Chamberlain insisted that when viewing his art, as with everyday existence in the world, a willingness to just

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<sup>&</sup>lt;sup>301</sup> Ibid., (phrases reordered).

perceive means learning, again and again, what one did not know before, even though things seem perplexing at first. Recognizing this potential for confusion, Chamberlain claimed that "a work of art can give you a lot [of] things you don't need. . .. But you can also savor it and keep it in reserve because tomorrow you may need it." When experiencing the lacquer paintings and the metal sculptures, discovery begins with an intuitive insight. Then, it takes careful looking and thinking to gauge new phenomena's similarity, difference, or distinction of degree from those we have seen before and already understand. As intellect admits exceptions, one adjusts trusted generalizations and, in so doing, learns. Viewing Chamberlain's art shows how to learn one must discover, and to discover one must perceive.

<sup>&</sup>lt;sup>302</sup> Chamberlain in Creeley, interview, 31–32.

### **CHAPTER 4**

# **To Perceive Like Robert Irwin**

I. Introduction: Taking Time, Paying Attention

I examine Robert Irwin's development of a hypersensitive mode of perception in this chapter, and evaluate the works he made that demand and reward such unusually acute observation. In order to register the extraordinary phenomena his pieces bring about and make apparent, one must pay closer attention to surrounding stimuli and for longer than usual. Everyday seeing, on the contrary, with its economy and efficiency, will inevitably miss such subtle sensations. In his later installations, Irwin increasingly extended his perceptual sensitivity beyond works of art to encompass experience of the world at large, enabling discoveries about it. As I analyze his pieces and projects, I repeatedly test the straightforward principle that Irwin came to realize about perceiving sensory phenomena in art and in the world: the more you look, the more you see.

Irwin made a refreshing claim at a symposium organized by the Philadelphia College of Art in 1976 (fig. 4.1). "I don't think there's anyone who

knows as much about what I do as myself," he submitted, "and there's nobody who's more conscientious about it than I am." <sup>304</sup> The declaration was bold, blunt, and also self-evident. All the same, Irwin felt it necessary to make the point explicit: we do well to remember that artists tend to be the experts on their own art, a truism that nevertheless escapes some reviewers and many scholars. With few exceptions, no one looks more closely at an artwork than its creator. And, likewise, the artist's descriptions of the aesthetic problems that prompted the piece would seem to be invaluable. Most works are best understood visually and not verbally, of course, and the translation into language of thoughts inextricably tied to material, space, and phenomena presents additional difficulties. Nevertheless, many postwar artists discussed their work in interviews and some even composed their own essays about it. The candor and assurance of Irwin's statement at the PCA symposium came easy given the rigor of his work habits, which, inside the studio or within a public gallery, surrounded by desert or amid a garden, involve hours and hours of perceiving.

Artists by and large demand such exertion from themselves. Sometimes, though, they fail to receive it in turn from those ancillary to the creative act.

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<sup>&</sup>lt;sup>303</sup> For related discussion and an earlier version of the argument put forward in this chapter, see Adrian Kohn, "See Like Irwin," *Chinati Foundation Newsletter* 12 (2007): 20–31.

<sup>&</sup>lt;sup>304</sup> Robert Irwin, et al., "A Symposium," *Projects for PCA: Anne Healy, Patrick Ireland, Robert Irwin, Charles Simonds* (Philadelphia: Philadelphia College of Art, 1976), 20.

Unaccustomed sensory phenomena elicit a range of reactions from the viewing public, often indifference, at times hostility, but seldom wide-eyed curiosity. Irwin complained that "we don't pay attention[,] we don't look and we don't open up to the idea that art really does inform us," perhaps about profound universal concepts, he might have added, but also about the extraordinary phenomena in our ordinary visual and physical environment. <sup>305</sup> During the 1960s, Irwin created successive series of artworks in order to see something he had not seen before. The mid-1970s marked the culmination of this thinking and a change in tack—Irwin began to examine the world itself with the intensive mode of perception he had developed through and reserved for his art. The phenomena all around, he found, were more complex than anything he could fabricate and so he began to examine them anew. <sup>306</sup> Accordingly, later works by Irwin focus one's attention on pre-existing but very subtle perceptual stimuli instead of showcasing their own visual or material properties.

There is a catch, however. To learn, one must trust both art and artist; resolute skepticism only obstructs meaningful engagement. Irwin's work makes for good practice in this regard since his straightforward premises can be tested

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<sup>&</sup>lt;sup>305</sup> Milton Esterow, "How Public Art Becomes a Political Hot Potato," *Art News* 85, no. 1 (January 1986): 79.

<sup>&</sup>lt;sup>306</sup> For example, Irwin admitted that a "shadow was more interesting than any mark I could make." See Kate Horsfield, "On Art and Artists: Robert Irwin," *Profile* 2:4 (July 1982), 10.

with ease. Take a closer look somewhere familiar and judge whether or not you perceive anything new. "What I'm really trying to do," Irwin summed up, "is to draw your attention to, my attention to, looking at and seeing all those things that have been going on all along, but which have been previously too incidental or too meaningless to really seriously enter into the dialogue of our whole visual structure, our picture of the world." This mode of engagement enabled Irwin to perceive the often perplexing appearances of art and everything else, and to make discoveries about his surroundings instead of dismissing new phenomena because of their ostensible similarity with prior experience.

Admitting ignorance may sting at first for savvy viewers but doing so enables one to learn. Irwin knows something most of us do not, a skill he taught himself, has investigated for the last five decades, and remains willing to share—a different way to perceive. The inevitable obscurity of the art he has made in pursuit of this capacity has put him at risk of misplaced accusations of elitism. In the 1970s, innovation seemed undemocratic to some. Irwin responded deftly: "The obscurity of this original act . . . is often thought of, from social views, as elitism[, which] is simply not true[.] Ideas and inquiry are always obscure to begin with and the accusation of elitism is totally incorrect [because] elitism is the

<sup>&</sup>lt;sup>307</sup> Frederick S. Wight, "Robert Irwin" interview transcript, 1975–76, in "Los Angeles Art Community: Group Portrait" (Los Angeles: Oral History Program, University of California, Los Angeles, 1977), 112.

private use of ideas for personal gain and power."<sup>308</sup> Far from an exclusionary project, Irwin seeks heightened perception, a goal everyone can attain, put to use, and enjoy. "This thing is totally free. Anybody can participate, and it's totally available if you're interested."<sup>309</sup> "My highest ambition," he pledged, "is, in a sense, to make you see a little bit more tomorrow than you saw today."<sup>310</sup> Sensory richness exists all around, just overlooked. Developing the obscure, not elitist, ability to perceive more of it requires only curiosity, time, and attention.

In daily life, however, we tend to lack all three. Navigating the world demands efficient handling of a constant flood of sensory phenomena. Recall Roger Fry's concept of "perceptual economizing." Since discerning everything is neither possible nor desirable, definite goals help us allocate concentration and determine what to ignore. "If I want to go from here to the door," Irwin ventured, "certain pieces of information are critical to my getting there. Other pieces of

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<sup>&</sup>lt;sup>308</sup> Lyn Blumenthal and Kate Horsfield, "On Art and Artists: Robert Irwin," video recording, 1976 (Chicago: Video Data Bank, School of the Art Institute of Chicago, 1978), at 36:03. See also Robert Irwin, "Twenty Questions," *Vision* 1 ["California"] (September 1975): 39; Irwin, et al., "A Symposium," 17; Wight, "Robert Irwin," 119–20; Robert Irwin, "The Process of Compounded Abstraction—Notes Toward a Model," *Robert Irwin* (New York: Whitney Museum of American Art, 1977), 31.

<sup>&</sup>lt;sup>309</sup> Blumenthal and Horsfield, at 36:24.

<sup>&</sup>lt;sup>310</sup> Esterow, 79. See also Robert Irwin, "Introduction: *Change, Inquiry, Qualities, Conditional*," *Being and Circumstance: Notes Toward a Conditional Art* (Larkspur Landing, Cal.: The Lapis Press, 1985), 25.

<sup>&</sup>lt;sup>311</sup> See Roger Fry, *Vision and Design*, 1920 (Reprint, New York: Meridian Books, Inc., 1956), 18–20; and related discussion in the "Development of Vision" section in Chapter 1 above.

information are peripheral. So, I will set up, or define, or distinguish those things which are critical to that act."<sup>312</sup> The floor between here and there, the table in the way, and the doorknob would rank high in priority among objects in the proposed visual field. Scrutinize these, maybe glance over whatever lies adjacent, and disregard the rest for the sake of economy.

With frequent repetition from infancy on, such perceptual paring comes to happen in an instant and we get very good at seeing only what we need to make it from here to the door. The problem lies in extending this successful technique to everything else all the time. "We block out that information which is not critical to our activities[,] and after a while, you know, you do that repeatedly, day after day after day, and the world begins to take on a kind of fairly uniform look to it," Irwin warned. Fry conceived of perceptual economizing as a property of everyday vision but not other more attentive modes of seeing. His concern that viewers will only ever carefully examine artworks assumes that they in fact can do so in the first place. The situation may be even bleaker if, out of habit, perceptual economizing remains the default in all circumstances, when seeing art as well as the world. If this turns out to be the case, we are at risk of missing

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<sup>&</sup>lt;sup>312</sup> Blumenthal and Horsfield, at 21:35. See also Blumenthal and Horsfield, at 25:15; and Horsfield, "On Art and Artists," 9. See related discussion in the "Semiotics" section in Chapter 1 above.

<sup>313</sup> Wight, "Robert Irwin," 163.

many of the phenomena such scenarios have to offer. Perceptual efficiency has a profound downside: very little of what is in front of the eyes at any moment registers, and yet we count this diminished view as accurate knowledge of the things we see. Irwin proposed the alternative approach of observing the objects and phenomena around us far more carefully than we usually do. Perceiving more constitutes the payoff for the considerable time and effort involved.

### II. Inches, Millimeters, Mils

Viewing art, like approaching a door, may resemble an automated routine at times. Spend a few moments observing, compare and contrast with something seen before, then press on to the next piece. Many artworks of the 1960s and 1970s, although they may appear both basic and obvious at first sight, require more vigilance than that. Irwin's own exhaustive methods demonstrate another possible mode of perception, inefficient to be sure but also far more acute than usual. With his late oil-on-canvas line paintings under way in the studio between 1962 and 1964 (fig. 4.2), Irwin recalled how he "started spending this time just sitting there looking": "I would look for about fifteen minutes and just nod off, just go to sleep. And I'd wake up in about fifteen minutes, and I'd concentrate and

<sup>&</sup>lt;sup>314</sup> Fry, Vision and Design, 24–25.

look, sort of just mesmerize myself, and I'd conk off again. . . . I'd look for a half an hour, sleep for a half an hour. [. . .] I just literally went to the studio at eight o'clock in the morning, and I came out of there at twelve midnight, and I did it seven days a week."

Needless to say, maintaining an uninterrupted gaze for fifteen or thirty minutes demands a great deal of effort. Often the mind lurches after just a few seconds, clutching at anything to ponder besides the artwork or, more subtly, mulling over what significance the act itself of staring so intently might have. Either reflex amounts to abandoning careful examination, as Irwin learned. He had trouble mustering the necessary focus at first. "I just did not have that kind of attention span, that kind of intensity," he admitted. Soon after, though, Irwin persevered through a withering regimen to elevate his sensitivity to phenomena previously indiscernible. "Time became the one ally: that I would spend time looking," he remembered. "I just forced myself to stay there in the beginning, . . . ] whether I did anything or didn't do anything, whether I was able to work or not able to work, I simply would not let myself leave." As he practiced and

<sup>&</sup>lt;sup>315</sup> Wight, "Robert Irwin," 43–44; and Lawrence Weschler, partially processed interview transcript, 1977, in "Robert Irwin Project Interviews" (Los Angeles: Oral History Program, University of California, Los Angeles), 44.

<sup>&</sup>lt;sup>316</sup> Weschler, interview transcript, 45.

Wight, "Robert Irwin," 40–41 (phrases reordered); and Weschler, interview transcript, 45.

developed this new way of seeing, Irwin came to realize a general rule: the longer he observed a piece of art or the world at large, the more he would perceive.

Uncommon discoveries and new knowledge ensued. When Irwin began experimenting with his line paintings, he picked up on distinctions previously invisible (figs. 4.3–4.5). "The senses are fantastically severe instruments if you really start letting them read," he attested. "I would sit there and look at these two lines. Then I'd move one of them up an eighth of an inch . . . and I could see that there was a difference." He went even further in a 1971 interview: "If I raised the width of a line by the thickness of a piece of paper it actually changed the whole physical structure of the painting." It is tempting to treat these statements as exaggerated for rhetorical effect. After all, an eighth-inch discrepancy may have serious consequences in many circumstances outside art, but a paper-thin deviation of four mils—four thousandths of an inch, the thickness of typical office letterhead—amounts to an unacceptable margin only in the most technical operations. Nevertheless, Irwin intended his words to be perfectly literal.

<sup>&</sup>lt;sup>318</sup> Frederick S. Wight, "An Interview with Robert Irwin," *Transparency, Reflection, Light, Space: Four Artists* (Los Angeles: The UCLA Art Galleries, 1971), 69.

<sup>319</sup> Wight, "Robert Irwin," 40–41.

<sup>320</sup> Wight, "An Interview," 69.

Spotting an eighth-inch divergence sounds feasible with practice; perhaps detecting an alteration thirty times smaller and at the limits of unaided sight is indeed possible, as Irwin claimed. He remarked on his last series of paintings that "the lines [were] spaced such that your eye could not really ever read the two lines simultaneously."321 Attaining this delicate suspension of focus required weeks of trial and error—repositioning the horizontals a millimeter higher and then lower, making them a few mils taller then shorter. "I don't know if anybody else would ever look at them long enough to arrive at that," Irwin conceded, "but time was certainly necessary for judgment."322 Perceiving only a tad more takes far longer but Irwin's findings seem to warrant the effort. The minute distinctions that he discovered constitute new knowledge, visual facts he had never seen before despite years as a practicing painter. Even more significantly, Irwin taught himself how to begin to notice these and other stimuli that fall well below the threshold of everyday seeing. New realms of sensory input become accessible when you try to perceive more than you usually do, both in unaccustomed situations as well as when looking at something or someplace ostensibly familiar.

<sup>&</sup>lt;sup>321</sup> Wight, "Robert Irwin," 27.

<sup>322</sup> Wight, "An Interview," 69.

And as Irwin emphasized, this potential exists for everyone: it is always available if one is interested.<sup>323</sup>

In the line paintings, Irwin experimented with his recalibrated perceptual sensitivity and the new kinds of visual phenomena that started to register. For instance, Crazy Otto of 1962, an early piece casually named after a local pub, brings about intriguing visual effects (fig. 4.6). Eighteen inches or so above the bottom edge of the greenish-brown, mustard-yellow canvas lies a pale powder blue stripe, about a quarter-inch tall. A second line of the same height and hue rests twenty-one inches higher and a third twenty inches above that. Up another three inches, a darker blue horizontal extends across the piece. The glossy finish and tiny edgewise lip sharpen these hand-painted lines against the uniform brushy and matte surface. Irwin sought a bit of roughness for the lines and ground, an appearance he considered more neutral than either machined perfection or expressive handling. "If I put [the lines] on, which I tried, like ruling them on in a way," he recalled, "they had an image to them of geometry; and if I put them on too crudely, they were like the older paintings, having all that kind of emotive thing."324 When seeing so acutely, otherwise negligible visual incidence reads as

<sup>323</sup> Blumenthal and Horsfield, at 36:24.

<sup>&</sup>lt;sup>324</sup> The grounds of Irwin's paintings from 1962 to 1964 have a neutral coarseness. "The late line paintings would have an orange ground [with] a texture to it, but not a real obvious texture," he added. See Wight, "Robert Irwin," 21, 27.

meaningful and may come to dominate attention. Irwin did not want to let the eyes settle on any particular mark. As a result, he sought the tenuous neutrality of a ground midway between immaculacy and roughness, which forces the eyes to explore the chromatic and spatial relationships throughout.

When compared, the lines and ground of *Crazy Otto* manifest a wide scope in their degrees of difference. For instance, as exact chromatic complements, the colors of the mustard canvas and three powder blue stripes could not contrast more. And yet the blue of these three horizontals could hardly be closer to that of the darker topmost line, painted the same hue but an adjacent gradation of value. The spacing of the stripes generates curious phenomena as well. The heights of the lower three mustard regions vary while remaining too alike to see as stable ratios, such as one-to-two or two-to-three. Rather, the divisions by turns suggest and contradict a ratio of one-to-one-to-one. Put another way, the area under the middle pale blue line is the largest of the three but also, because of its size and centrality, most susceptible to the tendency of flat painted surfaces to appear somewhat concave. Its shallow recession restores a rough parity to the height of the smaller and less affected sections above and below it. Still, this apparent correspondence holds true only from a head-on viewpoint—an oblique angle verifies the actual incongruity. These are strange phenomena to be

sure, discoveries about the complicated visual behavior of a conceptually (and verbally) straightforward scenario: four lines on a canvas.

Compounding the spatial oscillation in *Crazy Otto*, Irwin accentuated the "interplay between [its] lines" and "sense of perspective" by shortening the stripes toward the top of the painting. 325 The horizontal at the bottom is about fifty-four inches long. The line near the center, also fifty-four inches, stretches a quarter-inch farther on both ends than the one above it. That stripe, in turn, reaches beyond the upper darker blue horizontal by the same amount. The slight disparity between the top pair flickers into and out of perceptual recognition: you seem to get an intuition of their unequal lengths as opposed to seeing this outright. The second and third line, separated by twenty inches rather than only three, are all the more difficult to apprehend together and compare—maybe even impossible, without additional practice and another spike in visual acuity. The result is that each mustard expanse retains its own curiously indefinite sense of pictorial space.

A 1993 essay by Irwin returns to the phenomenon of space in paintings. In "The Hidden Structures of Art," he considered how we surmise recession in tridimensional depth from a bidimensional canvas. Jacques Louis David's 1805–07 masterpiece titled "*The Coronation of Napoleon and Josephine* provides us with a classic illustration of the consequences of this concept of 'figure and

<sup>325</sup> Wight, "Robert Irwin," 26.

ground' carried to its extreme—of how in pictorial art an abstract hierarchy of mark, frame, and meaning content translates structurally as deep pictorial space" (fig. 4.7). Some of the same standard "accounterments," as Irwin called them, remain in *Crazy Otto* and the early line pieces. "These were still paintings in a traditional sense," he acknowledged. "You had a sense of composition, a sense of perspective, and there was an interplay between these lines, the blue ones playing against the softer ones and coming forward, and the other ones going back." More and more, however, the line paintings appealed to a different mode of observation, one unlike our accustomed techniques for perceiving both paintings and also the world.

Irwin's late line paintings with two orange horizontals on an orange ground continue his investigation of and experimentation with how we perceive pictorial space. Whereas *Crazy Otto* retains spatial interplay, Irwin felt that his orange-on-orange paintings from 1963–64 eliminate it altogether. "Those lines had no actual focal aspect to them at all. There were no real figure-ground relationships," he maintained. "Your eye, in the late line paintings, tends to become caught up in a sort of so-called negative space[, . . . that is to say,]

<sup>&</sup>lt;sup>326</sup> Robert Irwin, "The Hidden Structures of Art," in Russell Ferguson, ed., *Robert Irwin* (Los Angeles: The Museum of Contemporary Art, Los Angeles, 1993), 23.

<sup>&</sup>lt;sup>327</sup> Wight, "Robert Irwin," 26 (phrases reordered).

suspended in the space between [stripes]."<sup>328</sup> Familiar modes of perception fall short. The untitled late line paintings stray from what one already knows, resembling neither real tridimensional space nor its common pictorial analogies such as figures on a ground. Even when observing Irwin's paintings with intense concentration, certain kinds of sensory incidence remain unmanageable. You notice these phenomena—your eye getting "caught up" in spacelessness—but the mind often grinds to a halt if you try to translate what you see or feel into language. The oddity of firsthand experience eludes metaphor. Nevertheless, the failure of language seems to coincide with the discovery of unprecedented phenomena and of the impending limits to one's present perceptual capacity. Probing this threshold remains a promising way both to encounter fresh sensations and to continue heightening one's sensitivity to even subtler phenomena.

### III. An Investigation of Phenomena

Ten subsequent dot paintings Irwin made between 1964 and 1966 overwhelm the capabilities of human eyesight (fig. 4.8). In one such work, he dabbed on no less than a hundred thousand millimeter-wide lavender and kelly-

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<sup>&</sup>lt;sup>328</sup> Blumenthal and Horsfield, at 9:30; and Wight, "Robert Irwin," 27–28. See also Horsfield, "On Art and Artists," 4.

green dots (fig. 4.9). The green marks cease at a radius of thirty inches from the center; the lavender spots extend another six inches; and, encircling these, a band of underlying lead white primer continues to the edge of the rectangular support. Like the stripes in the line paintings, the arrangement of dots and the dabs of paint themselves are nondescript: the rows and columns lean a bit and the marks are circular but not circles. Again Irwin identified the necessity of avoiding both painterly incident and mechanical perfection. "The dots had to be put on so they were not too uniform," he found. "I couldn't lay out a grid because the grid becomes identifiable in itself; on the other hand if they were too irregular, then [they] became patterns of focal spots," which Irwin found to be objectionable because they encouraged the eyes to settle on a particular area. 329 He wanted to continue his experimentation with the rootless spatiality and other puzzling phenomena in the late line paintings, but also now to eliminate visible marks entirely. In concept, hand-painting thousands upon thousands of dots so that they might better disappear seems like a "bizarre act," Irwin acknowledged. 330 Not for the eyes, however. Creating extraordinary visual phenomena requires such exotic methods.

<sup>&</sup>lt;sup>329</sup> Horsfield, "On Art and Artists," 5.

<sup>330</sup> Ibid.

Irwin also adhered to a complicated coloration scheme in the dot paintings. As with *Crazy Otto*, he started out with precise complements, lavender and kelly-green in one painting, orange and blue for another, yellow and violet in a third. Dots in and around the center have high saturations of these hues but steadily lightening tints the farther out they lie. "I put on the dots, say, starting with very strong red, as rich as possible, [and] moving out to the edge, becoming less and less intense," Irwin recounted. "Then I took the exact opposite color and put a green dot in between every one of the red dots."<sup>331</sup> Each of these paintings required a hundred thousand hand-painted dots, neither too messy nor too mechanical, in a regular arrangement but not a grid. Small wonder Irwin made only ten of these works. "The dot paintings took forever. It took three years to do 10 of them, and that's on a fifteen hour a day schedule, seven days a week of just pure labor," he remembered. "They took so much time. [...] They were the hardest things I ever had to do, physically. . . . I mean, it was actually painful work to do."332

An unusual support accompanied this arduous painting technique. Irwin spent a year perfecting the interior latticework needed to hold a cambered shell. "I

Wight, "Robert Irwin," 49–50. See also Jan Butterfield, "The State of the Real: Robert Irwin Discusses the Activities of an Extended Consciousness—Part 1," *Arts Magazine* 46, no. 8 (June/Summer 1972): 49; Blumenthal and Horsfield, at 11:19; Horsfield, "On Art and Artists," 4.

<sup>&</sup>lt;sup>332</sup> Horsfield, "On Art and Artists," 5; Weschler, interview transcript, 111; and Wight, "Robert Irwin," 51.

wanted the canvas to have a slightly convex surface to it—in other words, slightly curving, bowing towards you," he explained. 333 "Built and strutted like an airplane wing," as he put it, the structure swells on both sides, with a rear brace securing it "off from the wall just enough so that you couldn't compare it to the wall. 334 The frontal rounding measures about two inches at its highest point and remains indiscernible from more than a couple feet. "You didn't say, ah, a curved canvas, and attach it to an idea," Irwin emphasized. "You only picked up, very subliminally, this added energy." The word "subliminal" is apt. Sensory stimuli in Irwin's art often fall below the threshold of perceptual awareness but elicit a response all the same. Of course, the ability to identify a particular phenomenon as subliminal negates its present status as such. And therein lies confirmation of discovery—you perceive more now than you once could.

Perplexing phenomena in the dot paintings waver between reality and illusion while fluctuating into and out of conscious perception. The teeming specks, too tiny and numerous to process one by one, trigger localized visual breakdowns throughout the painting. "In the center, they essentially cancelled each other out," Irwin noted. "You didn't see either green or red but rather . . . the

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<sup>333</sup> Wight, "Robert Irwin," 45.

<sup>334</sup> Wight, "Robert Irwin," 45; and Butterfield, "The State of the Real," 49.

energy generated by the interaction between the two."<sup>336</sup> A thin translucent plane, grayish in hue, whose soft glow also emits periodic incandescent sparkles, seems to float within the canvas but then beyond it in the gallery as well. Squarish shapes shimmer and circulate like phosphenes. Oddly, these hotspots change scale in inverse proportion to the painting's size in the visual field: when you stand ten feet away, they look smaller and, at twenty feet, larger. To Irwin's eyes, these manifold illusions "creat[e] physical space which is occupied by a physical kind of energy."<sup>337</sup> "If you took a little time," he advised, "this energy . . . would actually grow and get stronger and stronger."<sup>338</sup> What Irwin described as energy is decidedly not metaphysical, which the word can sometimes suggest. The overloaded eyes see actual phenomena in real space despite what the mind thinks it knows to be so. Sensations for which we have no good name begin to register when one takes a little time to look more closely than usual.

Illusions continue to intensify and flourish in Irwin's next series of disc paintings, which coalesce with ambient light and shadow (figs. 4.10, 4.11). The

<sup>&</sup>lt;sup>335</sup> Wight, "Robert Irwin," 48. See also Butterfield, "The State of the Real," 49; Blumenthal and Horsfield, at 10:47; Horsfield, "On Art and Artists," 4.

<sup>336</sup> Wight, "Robert Irwin," 50.

<sup>&</sup>lt;sup>337</sup> Ibid., 68. See also Irwin, et al., "A Symposium," 15–16; Blumenthal and Horsfield, at 11:32; Horsfield, "On Art and Artists," 4; and Vivian Sobchack, "From Space to Place: Vivian Sobchack Talks to Robert Irwin," *Artforum* 32, no. 3 (November 1993): 73.

<sup>&</sup>lt;sup>338</sup> Butterfield, "The State of the Real," 49.

circular supports, fabricated in two materials and three sizes, have a shallow camber. The earlier aluminum discs have a diameter of either four or five feet and the later acrylic plastic works measure fifty-four inches wide. Irwin again used an innovative painting technique. The front of the disc accumulated between fifty and a hundred coats of lacquer as he "sprayed on thin, transparent layers of color over a silver-white metallic ground . . . from just enough distance to cause it to become slightly grained." "This grain," Irwin added, "faceted and diffused the light to create a matte finish, as opposed to a hard, shiny automotive surface." "Gallery lighting disperses across, around, and behind a disc, giving it a glow of sorts.

The subtly modulating hues of the grainy paint served Irwin's separate aims for the center and circumference of these paintings. "At the edges I made a very slight color and value change, to lose the edge in the shadow space [behind it]," he recalled.<sup>341</sup> A large 1966–67 aluminum work is painted a cream-white faintly tinted with pink, violet, blue, green, yellow, and grayish purple in successive rings from hub to lip (fig. 4.12). Irwin then suspended this support

<sup>&</sup>lt;sup>339</sup> Jan Butterfield, "Robert Irwin: The Subject of Art Is Aesthetic Perception," microfilmed manuscript of unpublished article, 1977 (Washington, D.C.: Jan Butterfield Papers, Archives of American Art), roll 2787, frame 874. See also Wight, "Robert Irwin," 92.

<sup>&</sup>lt;sup>340</sup> Butterfield, "Robert Irwin," frame 874. See also Wight, "Robert Irwin," 92. Compare Irwin's technique to Chamberlain's; see related discussion in the "Introduction" of Chapter 3 above.

<sup>&</sup>lt;sup>341</sup> Butterfield, "The State of the Real," 49. See also Irwin, et al., "A Symposium," 16; and Butterfield, "Robert Irwin," frame 875.

twenty inches out from the wall, the distance he judged most effective after empirical experimentation. "I tried every different kind of distance until I found the ones that seemed to make the most sense," he explained. "There's a point where if it sticks out too much you become really conscious of it being out from the wall. And there's a point where if it's not out far enough it tends not to really get under way, as it were." <sup>342</sup> The discs appear translucent though also opaque, reflective yet absorptive, discrete but then indistinguishable from the wall. Perception has little experience handling sensations this contradictory in concept. But the eyes are fantastically severe instruments, as Irwin said. They will register the enigmatic phenomena created by the discs if we allow (or force) ourselves to pay close attention.

For starters, the projection of the pieces from the wall plane and chromatic fluctuations magnify the two-inch swell of their surfaces. Staring at a disc head-on, one may see instead a sphere, mistakenly construing five feet of nonexistent depth to correspond with its real five-foot diameter. Phenomena abound as the eyes begin losing focus and retinal fatigue sets in. Shadows gleam and project rather than withdrawing. Pulses of light race around the rim. And then, like Irwin intended, one's ability to differentiate the disc, shadows, and wall falters. Large

<sup>342</sup> Wight, "Robert Irwin," 91–92 (phrases reordered).

swathes of all three dissolve into and emerge from each other every so often as one's perceptual acuity slumps and recovers.

Other aspects of these paintings likewise bring about curious phenomena. At the center of a disc, Irwin identified a so-called "[visual] field density that operated on the eye similar to a ganz field" or *Ganzfeld*, a featureless optical environment that he in turn likened to "putting your head inside a ping-pong ball... that's lit evenly, so that you have no visual point [of] focus." A *Ganzfeld*, a ping-pong ball interior; Irwin tried a third analogy to convey phenomena without commonplace precedent. "The center has a density that would be like reaching your hand into and meeting the resistance of, say, water," he proposed. "And the space around it has slightly less, as if you were reaching your hand into a windy day." The leap from touch to sight notwithstanding, the disparity in material density between two fluids, water and air, resembles the incongruity in so-called visual density between the disc's inner and outer phenomena. Irwin could only formulate and communicate this new knowledge gleaned from intense

<sup>&</sup>lt;sup>343</sup> Butterfield, "The State of the Real," 49 (supplemented for clarity); and Wight, "Robert Irwin," 166. See also Butterfield, "Robert Irwin," frame 875. Irwin worked with Ganzfeld environments as part of the "Art and Technology" program organized by the Los Angeles County Museum of Art from 1968 to 1971. See discussion in the following section, as well as Irwin's list of potential topics compiled for Lockheed's public affairs office, "Project with Garrett 1-15-69" notes, and a description and reproduced image of a three-foot illuminable Ganzfeld, as reprinted in Jane Livingston, "Robert Irwin / James Turrell," 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), 127, 130, 136–37.

<sup>&</sup>lt;sup>344</sup> Wight, "Robert Irwin," 70. See also Butterfield, "The State of the Real," 49.

observation by deploying somewhat tortured analogies. Often, with his art, the phenomena one perceives ultimately defy direct description.

The late discs made of clear acrylic plastic offer yet more unusual phenomena. Irwin varied the white lacquer's opacity (a fourth quality of applied color) in place of the modulating hues, values, and saturations on the aluminum pieces (fig. 4.13). "I sprayed out from the center, working from an opaque white through a translucent one so that they became completely transparent around the edge," he commented. A gray band across the face of the discs, which tapers off and vanishes before the adjacent white does, seems far behind or else ahead of where it in fact is. The disc, wall, light, and dark converge and separate; the gray band advances and recedes. As you keep peering ahead, these phenomena continually alter.

And lastly, Irwin's specialized but uncomplicated lighting set-up enhances the puzzling visual behavior of both the early and late disc paintings. Four 150-watt floods, two above and two below, at the left and right about six feet out in front, cast a complex of light and dark back onto the wall (fig. 4.14). He emphasized, however, that "in the best installations I've ever done, on a couple of

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<sup>&</sup>lt;sup>345</sup> Butterfield, "Robert Irwin," frame 875. See also Wight, "Robert Irwin," 107.

<sup>&</sup>lt;sup>346</sup> See Lawrence Weschler, *Seeing is Forgetting the Name of the Thing One Sees: A Life of Contemporary Artist Robert Irwin* (Berkeley: University of California Press, 1982), 105.

occasions, I've done them without the four lights, just simply in the natural light of the room. . . . The reason for floor lights is that . . . there had to be some uniform solution."<sup>348</sup> When lit, four arced shadows, each constituting three-quarters of a full circle, rest beyond the four quadrants of the disc. These lobes have shadowy perimeters but also a dim inner glow. Darker arches also arise at the top, bottom, and both sides of the disc where the circular forms overlap. Slivers of these layered shadows intersect yet again in spots (as in the lower right corner of one work, fig. 4.15). Irwin's disc paintings offer a bonanza of unusual visual input. By perceiving phenomena so unlike what we normally apprehend, we learn about the novel sensations themselves but also discover the existence of vast amounts of sensory data that go unremarked in art objects and in the world at large.

To witness these exceptional phenomena, one must monitor more of the visual field and for longer than usual. With its narrowness and haste, everyday seeing cannot but overlook such subtleties. Concerning fruitless attempts to view the dot paintings in particular, Irwin acknowledged that "for a lot of people—it's like there's nothing there."<sup>349</sup> He felt that his own level of awareness was

<sup>&</sup>lt;sup>347</sup> See Wight, "Robert Irwin," 76; and Weschler, *Seeing is Forgetting*, 103–104.

<sup>348</sup> Wight, "Robert Irwin," 87.

<sup>349</sup> Wight, "An Interview," 96.

improving with practice however, unveiling rare sensations that in turn redoubled his curiosity and scrutiny. "I became . . . able to discern a little bit more than I did originally[,] therefore I had more interest, or more to look at," he explained. "Second, I developed a better attention span[.] I was able to sustain my attention longer than I did in the beginning and began to develop or extend that time."350 Expectations of expediency ruin an opportunity to let the eyes linger on Irwin's art. If you do so, he felt certain, you will make discoveries. The dot and disc paintings refine acuity across the board, eliciting unaccustomed examination of sights thought already familiar, first glimpses of phenomena heretofore subliminal, and newfound sensitivity—albeit unconscious—to stimuli altogether imperceptible before.

#### IV. Recalibrating the Senses

Beginning in November 1968, the Los Angeles County Museum of Art's blockbuster exhibition program titled "Art and Technology" gave Irwin a chance to investigate visual phenomena and perception with artist James Turrell and Ed Wortz, head of life sciences research at a local aerospace firm. 351 "We had

350 Wight, "Robert Irwin," 44.

<sup>&</sup>lt;sup>351</sup> According to a brochure introducing the "Art and Technology" project to corporate executives,

ourselves, one at a time, put in an anechoic chamber[,] a totally sound-dampened space," Irwin reported. "They would put us in there, turn the lights off, and then close the space" (fig. 4.16).<sup>352</sup> The team used the facility at UCLA, which minimized several kinds of sensation: "it was suspended so that even the rotation of the earth was not reflected in it, or any sounds being bounced through the earth—a jackhammer five miles away or something. Nothing went into that space. And no light at all. . . . You had no visual and no audio input." As when studying his paintings for days on end, Irwin spent outlandish lengths of time in this stark space. "We made one basic rule," he mentioned. "In the beginning, say, we would not move from the chair. We'd just simply sit in the center of the room. And we got so that we'd spend maybe six or eight hours in there alone, each of

International developments in art have provided the impetus for this project: much of the most compelling art since 1910 has depended upon the materials and processes of technology, and has increasingly assimilated scientific and industrial advances. Nevertheless, only in isolated circumstances have artists been able to carry out their ideas or even initiate projects due to the lack of an operative relationship with corporate facilities. Our objective now is to provide the necessary meeting ground for some eminent contemporary artists with sophisticated technological personnel and resources.

See the brochure text, as reprinted in Maurice Tuchman, "Introduction," in Tuchman, A Report on the Art and Technology Program, 11.

<sup>352</sup> Wight, "Robert Irwin," 159 (phrases reordered).

<sup>&</sup>lt;sup>353</sup> Ibid. See also "Part 2: Sensory Deprivation" in the team's January 1969 statement, their questionnaire for anechoic chamber test subjects, and "Project with Garrett" notes from January 15 through February 10, 1969, as reprinted in Livingston, 130–36, 139. See images of the UCLA facility in Livingston, 133, 135.

us."<sup>354</sup> These extreme conditions and durations affect one's perceptual acuity both inside the chamber and then also upon leaving it. Strange phenomena appear before the eyes and other senses—some caused by real stimuli, others pure hallucination, and a few seemingly the result of both.

After less than fifteen minutes, one of the team's test subjects described vivid illusions including "blue-gray after-images on a darker-grey field," "rod-shaped blue things and lights swelling in from [the] sides," and "faces from weird angles." Over the course of several hours in the chamber, Irwin said he experienced full-blown "retinal replay," ongoing hallucinations that duplicate previous optical responses. Confronted with a severe diminution of activity, the ravenous senses recalibrate to detect something, anything, from the dark silent stillness. If they still fail to find stimulation, it seems that the sensory faculties will begin to create their own phenomena.

When exiting such spare conditions at long last, a profound perceptual boost occurs. The eyes, now hypersensitive, stay retuned for a while. "I'd walk down the same street that I'd walked down coming in, and the trees were still trees, and the street was still a street, and houses were still houses, but the world

<sup>354</sup> Ibid.

<sup>&</sup>lt;sup>355</sup> See a test subject's responses to the team's questionnaire, as reprinted in Livingston, 136.

<sup>356</sup> Wight, "Robert Irwin," 159.

did not look the same," Irwin remembered. "It was very, very noticeably altered." In short, his senses registered more. Perception takes time to recover its efficient editing after long periods of limited excitation. Everything pours in, and with overwhelming detail. "There is a certain way you look and see every day," Irwin posited, "but when you're suddenly cut off for six or eight hours and then come back to it, there's a kind of change in the threshold [and] the acuity of the mechanism." The threshold at which phenomena lose visibility plummets. Acuity soars. Bounding back outside with the standard perceptual shortcuts in check means beholding the world's mesmerizing lushness in full.

In the forty years since his anechoic chamber experiments, Irwin has modified dozens of locations to accentuate their perceptual nuance. "To just treat the environment itself," he summarized his goals, "to deal with the quality of a space in terms of its weight, its temperature, its tactileness, its density—all those semi-intangible things, in a sense, that we don't normally deal with."<sup>359</sup> At this point, my examination of Irwin's art jumps from the principal period of time under discussion in this thesis to the year 2007. I believe that this discontinuity is justified, even necessary, given that brief verbal descriptions and photographic

<sup>357</sup> Ibid., 160.

<sup>&</sup>lt;sup>358</sup> Ibid., 161.

<sup>359</sup> Ibid., 110.

documentation (if either exist at all) in magazines and exhibition catalogues from the 1960s and 1970s fail to convey very much about the pieces and spaces Irwin designed—and certainly little of the "semi-intangible" qualities that most interested him. <sup>360</sup> Rather than compounding my account's distance from actual perceptual phenomena by trying to analyze artworks I have not experienced in person, I have decided to focus on a temporary 2006–7 project in Marfa, Texas, to which I did have firsthand access.

At the Chinati Foundation, Irwin altered a rectangular barracks with long wings on the north and south, a shorter connecting hall along the west, and an open courtyard to the east (fig. 4.17). Inside the north wing, two parallel planes of black scrim halve the corridor lengthwise by stretching floor to ceiling and almost end to end between two wood beams. This partition has the effect of regulating the incoming natural light. Whereas a single layer of scrim allows plenty of the desert sun to pass through, Irwin's structure traps and dissipates much of it in the five-inch gap between the dual sheets (fig. 4.18). He also added a dark tint to the glazing in this corridor, diminishing the interior brightness even more. The

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<sup>&</sup>lt;sup>360</sup> For examples and discussion of Irwin rejecting photographic documentation of his works, see Manfred de la Motte, *USA: West Coast, 1972* (Hamburg: Kunstverein Hamburg, 1972), 66–67; Jane Livingston and Maurice Tuchman, *11 Los Angeles Artists* (London: Hayward Gallery, 1971), unpaginated; *Kompas 4: West Coast USA* (Eindhoven, Netherlands: Van Abbemuseum Eindhoven, 1970): 32; *Looking West 1970* (Omaha: Joslyn Art Museum, 1970), 8, 24; "Robert Irwin" in John Coplans, *West Coast, 1945–1969* (Pasadena: Pasadena Museum of Art, 1969), 13; Walter Hopps, *The United States of America, VIII São Paulo Biennial* (Pasadena: Pasadena Arts Museum, 1966): unpaginated; Robert Irwin, "Robert Irwin," *Artforum* 3, no. 9 (June 1965): 23.

perimeter, for instance, maintains a soft luster except where three passageways in the scrim barrier align with three glass doors to the courtyard. Here, rhombuses of light unfurl over the floor and fold up onto the opposite wall (figs. 4.19, 4.20). These forms shift in dimension (length, width, incline) and appearance (color, brilliance, sharpness) as the sun arcs across the sky. Complementing the black median, a white divider cuts through the building's south wing (fig. 4.21). The white scrim reflects direct and ambient sunshine to a greater degree, retaining various hues as well. The material flushes yellow and pink in the late morning of a clear spring day, deepens to gold and rose in the afternoon, and blanches to pale blues and grays during early evening (figs. 4.22, 4.23). A third, black-and-white double partition bisects the shorter west corridor (fig. 4.24). With no glazing, this area ranges from dim to dark.

"A lot of people will just say, 'Oh, it's an empty room," Irwin noted of his spaces in general. "All those things going on in that room, all that physicality in that room, somehow does not exist." "Actually," he pointed out, "the room is not empty. I mean, on any kind of perceptual level, that room is very complex. It's loaded with shapes, edges, corners, shadows, surface, you know, textural changes." These are the elusive and ephemeral phenomena that intrigue Irwin

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<sup>&</sup>lt;sup>361</sup> Wight, "Robert Irwin," 110.

<sup>&</sup>lt;sup>362</sup> Ibid., 110–11. Irwin continued: "If you were to take all those changes, let's say, and put them into a painting, you'd have something very complex."

most. To catch sight of them at Chinati and everywhere else, scrutiny must trump efficiency when perceiving what is around you. Recall Irwin's exertion with his line paintings: "It was even a question of staying in the studio and simply not going out. . . . After a while, when you don't leave and you're there, you begin to occupy yourself either in looking or beginning to try and think about it." It may become necessary to will oneself to stay put and keep looking. Multiple visits and hours of observation reveal a staggering complexity in fits and starts. Again and again, however, you perceive what had escaped notice earlier.

English lacks a common word for the sunlit shapes inside the Chinati building, for example (figs. 4.25, 4.26). They are the counterparts of shadows in a way—areas that remain illuminated where an interposed opaque object (such as a wall) does not deflect light. Short gleaming bars shine onto the black scrim, repeating the intervals of the glazing opposite them (fig. 4.27). More rhombuses overlay the floor's gridded concrete slabs by the east windows of both wings (fig. 4.28). Roiling schlieren waves teem within these forms due to a differential between the air and ground temperatures outside that generates optical distortion. All the edges seem fuzzy and shimmering and the shapes themselves

<sup>&</sup>lt;sup>363</sup> Ibid., 40.

<sup>&</sup>lt;sup>364</sup> Schlieren are regions of a transparent medium, such as of a flowing gas, that are visible because their densities differ. In other words, the varying densities of the transparent gas transmit light more and less directly, an effect that appears to the eyes as roiling waves. Common examples

dim and brighten with passing clouds and windswept dust. "If [the] light changes in the day, or simply changes as it did now when a cloud went by, . . . everything in that room is altered," Irwin contended.365 The bars vanish at mid-morning until the next day. Each rhombus narrows, elongates, and warps, tilting ever more northeast during the afternoon. At sunset, sparkling peach silhouettes of the west doors modulate from pinkish yellow through pale orange before fading from the inner wall of the west corridor. These sunlit shapes are familiar in concept; we see similar instances every day but think little of it since their shape, color, and location modulate too slowly for ordinary perception. But if we pay closer attention than usual, Irwin believed, they may stoke our interest by giving us more to look at than we anticipate.

Many other phenomena start to register once the senses adjust to this level of stimulation. Mundane interior features all of a sudden appear striking. In the south wing, for example, the opaque white wood beams and strips blaze against the duller translucent white scrim that they anchor to the ceiling and floor (fig. 4.29). Moiré patterns flow between the scrim sheets as you walk about (figs. 4.30, 4.31). Splayed web-like cracks in the concrete slabs contrast with recurrent wiry hairline fissures on the walls. The other senses share in this increased acuity as

include the visible though transparent vapor that emanates from gasoline, and the flickering streaks over a hot road.

<sup>365</sup> Wight, "Robert Irwin," 212.

well. Footsteps echo; the wind groans and whistles between the louvered vents on the exterior gables. The concrete floor is cool, the untinted windows warm. As a newly sensitive mode of perception develops, entire realms of unaccustomed phenomena become available for discovery. Experiencing these sensations, and relearning how things look and how they are, amounts to new knowledge about a world that can sometimes seem exceedingly familiar when we cannot take the time to scrutinize it.

## V. Conclusion: Perceiving Anew

The test of Irwin's art may be how much more it enables you to perceive, both in its vicinity and elsewhere. He described how a gallery of Chicago's Museum of Contemporary Art had looked all along, prior to his 1975–76 installation: "You have a white wall, a white floor, and a white ceiling. [And] you have a black kickboard [...] so that when the janitor mops the place he doesn't get the wall dirty" (fig. 4.32). "Graphically-speaking, that's a powerful element," Irwin insisted. "In an all-white environment, you have this black line racing all the way around the room. . . . It should hit you hard, because it's far and away the

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strongest visual element in the situation."<sup>366</sup> Given a finite amount of time and effort, it seems reasonable to conserve concentration for the art on the walls and not the mopguards. Perhaps so, but this mindset allows phenomena no less intriguing to slip away unnoticed. Or, Irwin might have argued, the risk is in never seeing the mopguards at all, that is, the tendency to overlook certain phenomena altogether as opposed to making a conscious decision to ignore them.

His building at Chinati brings about a similar visual effect. A slit, one-sixteenth of an inch wide, contours the interior where the walls meet the ceiling and floor, broadening to a quarter-inch at the east end of both corridors. In Chicago, after laying a band of black tape across the floor to connect the left and right mopguards, Irwin noticed that "you became aware of that black line running through the entire museum, which you were not that aware of on the way in." Likewise at Chinati, Irwin's work in a particular barracks also reveals the tiny channel circumscribing the interiors of those nearby. Spotting this oddity might seem a trivial discovery were it not that the line demonstrates potential to overwhelm other visual events, including exhibited artworks. In the south wing of Irwin's building, the jet-black groove radiates and zooms through the utter whiteness. In the north wing, one can see the chromatic variance possible with

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<sup>&</sup>lt;sup>366</sup> Blumenthal and Horsfield, at 29:40; and Wight, "Robert Irwin," 226. See also Wight, "Robert Irwin," 215; and Horsfield, "On Art and Artists," 12.

<sup>&</sup>lt;sup>367</sup> Wight, "Robert Irwin," 229.

black—the scrim's translucent darkness, the opaque paint's absorption of light on the bidimensional surfaces of the wood beams, and the sheer absence of light in the tridimensional crevice (fig. 4.33). The ability to pick up on these chromatic distinctions confirms a newly sensitive mode of perception. And there remains much more to see if a viewer learns how to put that to use.

Exiting Irwin's building resembles his emergence from the anechoic chamber. Perception registers phenomena with little regard for efficiency. At night, for example, the typical street lamps on South Yale (just west of Chinati) appear astonishingly beautiful due to their assorted heights, spacing, brilliance, and hues including pink, violet, and white. Becoming more aware of the world at large constitutes the reward for perceiving so intently somewhere in particular.

Irwin learned to perceive more by studying the stripes in *Crazy Otto* for days, gazing at different visual densities in front of the dot and disc paintings, and staring for hours into the silent darkness of an anechoic chamber. One can develop similar perceptual skills at the Chinati installation. Having accumulated

<sup>&</sup>lt;sup>368</sup> In fact, municipal lighting proved to be one of Irwin's favorite sources of phenomena. "I just look out the back window where I live," he recounted in 1977. "There's a parking lot behind the tree there, and there are two lights that are on all night, two overhead lights which are a kind of blue in color. And one small light, down low, is an incandescent, like a yellow light. I really love the look of that at night." Also, part of Irwin's project at the Whitney Museum the same year was to "indicate . . . the recently installed line of pink mercury vapor lights that inscribed the green/black rectangle of Central Park." See Wight, "Robert Irwin," 277; Marianne Stockebrand, "Robert Irwin with Marianne Stockebrand: A Dialogue," *Chinati Foundation Newsletter* 6 (2001): 19; Butterfield, "Robert Irwin," frame 886; and a reproduction of an overhead photograph of Central Park at night in *Robert Irwin* (1977), 18–19.

this knowledge, though, Irwin warned against attempting to distill or translate it. He proposed a thought experiment: "Name all the events in a moment of perceptual experience. Do we have enough words to adequately reflect such a moment's real complexity?" To get from here to door, yes, we probably have a satisfactory vocabulary. However, if the moment in question was spent perceiving for its own sake, sensing as much as possible, then certainly not. "The real actual phenomenon," Irwin held, "does not really exist in the painting [or] in the photograph [or] in the retelling." Words do not suffice when trying to convey the strange findings made available by an intensive mode of perception. "A lot of people look at you like you've dropped your cookies," Irwin found. "It's not a verbal experience. . . . When you spend this long playing with non-verbal forms, it gets hard to talk. You don't have a *desire* to talk about it. It doesn't work, and it doesn't feel right." At some point, words must cease and one's own senses take over.

<sup>&</sup>lt;sup>369</sup> Robert Irwin, "Some Notes on the Nature of Abstraction," in Calvin F. Nodine and Dennis F. Fisher, eds., *Perception and Pictorial Representation* (New York: Praeger Publishers, 1979), 219.

<sup>&</sup>lt;sup>370</sup> Wight, "Robert Irwin," 128.

Robert Irwin, September 1970 statement, as reprinted in Livingston, 139 (emphasis in original).

#### **CHAPTER 5**

# Volume and Vision in Larry Bell's Art

# I. Introduction: Learning What Art Teaches

In this chapter, I analyze how Larry Bell's pieces assay our perceptual expertise. We are used to forming conclusions about material reality on the authority of visible phenomena but, as a result of Bell's use of glass in his paintings and his tridimensional constructions, several seemingly contradictory appearances frequently coexist and even coincide. It turns out to be surprisingly difficult to parse the physical, pictorial, and reflected visual information one finds when closely examining his work, a fact that complicates our casual confidence in the sensory faculties. Also, I examine Bell's intriguing distrust of language, especially his suspicion that its inevitable distortions offset any gain in communicability of perceptual experience. Phenomena themselves promise more profound discoveries than do words.

By the late 1980s, Bell had new insight into his works from twenty-five years before. "As I look back on the early pieces," he remarked, "the thing that is most dramatic about them to me is how much I learned from them, how much I

learned on my own about things that I never before even considered relevant."<sup>372</sup> Envisioning and creating an art object, then conscientiously perceiving the phenomena it brings about or draws attention to, can yield new knowledge about the piece itself, of course, but also to some extent about the world in which it exists. Bell attested to such discoveries: "The work . . . taught me not only to believe in myself, but it also taught me a vast amount about light, physics, matter in general. [. . . ] Since I left school, my work has been my teacher."<sup>373</sup>

This realization prompted Bell to make another, broader claim both on behalf of his own projects and creative activity at large. "Art is the manifestation of learning," he contended. "We can perform in any way we see fit, as long as our work teaches us something every day." By regarding new knowledge as ample

<sup>&</sup>lt;sup>372</sup> Larry Bell, "First Person Singular," *Larry Bell: Works from New Mexico* (Lyon, France: Musée d'Art Contemporain, Lyon, 1989), 16. Spelling and capitalization have been regularized in all quotations.

<sup>&</sup>lt;sup>373</sup> Bell, "First Person Singular," 16; and Larry Bell, "Light Vs. Weight," *Larry Bell: Light on Surface* (Laguna Beach, Cal.: Laguna Beach Museum, 1988), 22. See also Bell in Michele De Angelus, "Larry Stuart Bell" interview transcript, 1980, in "Archives of American Art Oral History" (Washington, D.C.: Archives of American Art, Smithsonian Institution, 1980), 50–51.

Bell endured especially disheartening experiences in school. A teacher at the Chouinard Art Institute sent him to see an "aesthetic advisor" at the school, who turned out to be a psychiatrist. "My whole world just collapsed," Bell recalled upon discovering the deception. "I had thought for once I was making decisions about my work and where I was going and this guy had just set me up because he thought I was some kind of nut." Bell in Douglas Kent Hall, "Strange Days: Conversations with the Doctor," *Zones of Experience: The Art of Larry Bell* (Albuquerque: The Albuquerque Museum, 1997), 22. See also Dean Cushman, "Chouinardtime," *Zones of Experience: The Art of Larry Bell* (Albuquerque: The Albuquerque Museum, 1997), 15. Perhaps as some sort of corrective, Bell raised money to help found the Taos Institute of Arts in the early 1970s.

<sup>&</sup>lt;sup>374</sup> Larry Bell, "In Reflection," *Larry Bell: New Work* (Yonkers, N.Y.: The Hudson River Museum, 1980), 77. In this and another catalogue essay, Bell also related how "John Chamberlain

justification for a single piece as well as an entire practice, Bell in turn implied principles for artmaking that he summarized as "an openness toward searching." After all, art can teach and an artist can learn innumerable lessons. To encounter these unprecedented experiences, it is often necessary to observe works and the sensory phenomena they effect with an usually acute mode of vision. If you want to learn then you must find what makes an artwork different from that which you already know.

Art critics and historians, however, at times manifest extraordinary assurance in likening unfamiliar pieces and perceptual experience to what they have seen and learned before. Acquaintance with some artworks can hide from oneself and from others a natural and blameless ignorance in front of different objects. Bell conceived of an alternative approach to dealing with the new phenomena one perceives when entering a gallery of new art. Rather than evaluating these sensations in terms of prior knowledge, one can respond above

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told me that art is a teacher. [...] I like that thought." See Bell, "In Reflection," 1980, 76; and Larry Bell, "On the Ellipse," *On the Ellipse* (Newport Harbor, Cal.: Newport Harbor Art Museum, 1982), 3 (phrases reordered). Several interviews with John Chamberlain corroborate Bell's account. "I never like to explain my work," Chamberlain explained. "I think that if I explain something, [a viewer might say,] 'well, okay, that's it, I don't have to think anymore.' If I don't explain anything, you still have your own act of discovery to exercise.... You're supposed to discover. There is no other place where you can exercise this facility." John Chamberlain, statements to author, audio recording, March 14, 2006, New York. See also Bonnie Clearwater, interview with John Chamberlain, transcript, January 29, 1991, Sarasota, Florida, (Washington, D.C.: Oral History Project, Archives of American Art), 16, 27–28, 38.

<sup>&</sup>lt;sup>375</sup> Bell, "In Reflection" (1980), 77.

all with curiosity. Scrutinize an object in itself. Try to make discoveries instead of reconfirming what you already know. Again Bell insisted, art will inform if you let it. "The importance of the work is in whether it teaches you something, and leads to the next step," that is to say, further investigation and yet more unaccustomed perceptions.<sup>376</sup> If at first a piece seems not to do so, Bell counseled, remain open anyway. "I am in a position of having a lot of esoteric knowledge," he admitted. "I learned a great deal about all kinds of things that I wasn't able to assimilate until much later in my life." It may take a while, but studying the esoteric phenomena Bell's art brings about can teach one a great deal.

## II. Sensation and Material

Things consist of matter and matter has sensible properties. To learn about objects then, art or otherwise, one can rely in whole or in part on the usual five categories of perceptual phenomena. Visual, tactile, aural, olfactory, and gustatory characteristics each constitute a subset of a substance's material reality: how it looks, feels, sounds, smells, and tastes amount to different sensate aspects of how it is. From birth, we painstakingly learn to make connections between these

<sup>376</sup> Ibid., 74.

<sup>&</sup>lt;sup>377</sup> "Larry Bell: An Interview with Alastair Mackintosh," *Art and Artists* 6, no. 10 (January 1972): 40; and Bell, "First Person Singular," 18.

modes of perception and, by adulthood, we have a dependable backlog of empirical experience to guide us.<sup>378</sup> To put it another way: one can take shortcuts. We often must infer something's physical qualities from its visual features alone over the course of daily life, determining how a thing is solely from how it looks.<sup>379</sup> This leap accompanies another. We make the blanket assumption that the correspondence between the visual and the material in what we are seeing for the first time approximates the analogous relationship in what we have seen before and had the chance to verify by touch. I look and then believe that I know, trusting in my ability to instantaneously judge the physical nature of visible objects.

This process of perceiving requires cognitive interpretation in addition to initial sensation. The brain must handle raw data pouring in from the sensory organs. Strangely, though, the phenomena one sees need not even be accurate to remain useful. Visual information that in similar circumstances predictably strays from reality still informs comprehension of it. Take, for example, how circles can resemble ellipses. "We view most circular objects from an oblique angle of about forty degrees," Bell noted. "The tires of our car, the dishes on our dinner table, are

<sup>&</sup>lt;sup>378</sup> See related discussion in the "Development of Vision" and "Empiricist Trial and Error" sections in Chapter 1 above.

<sup>&</sup>lt;sup>379</sup> See related discussion in the "Semiotics" section in Chapter 1 above.

rarely viewed directly at ninety degrees."<sup>380</sup> We learn to disregard the illusion of elliptical wheels and saucers since time and again they turn out to be circular after either a more thorough look or else tactile examination. And, anticipating this same incongruity in new scenarios, we may find ourselves confidently concluding that tires and dishes never seen before are circular on the very authority of their appearing elliptical.

The underlying assumption here—that we can surmise material characteristics from the phenomena we perceive despite such disjunction—saves us from having to test and confirm all that we see in any given moment. Everyday perception is efficient at all costs, always streamlining sensory input. We tend to forego subtlety for speed, which, in the case of sight, may mean just glancing about and inferring the rest. Yet an undue reliance on past experience implies that nothing exists that is new enough to require new knowledge. Bell's art proves that, on the contrary, we all have much to learn.

The paintings and several kinds of glass constructions Bell has made elude the perceptual shortcuts we have depended upon for decades, throwing doubt on whether appearances can undergird assessments of materiality after all.

Sometimes when looking at Bell's pieces you cannot tell what you are seeing. In

<sup>380</sup> Larry Bell, "In Reflection," *Zones of Experience: The Art of Larry Bell* (Albuquerque: The Albuquerque Museum, 1997), 55. See also Bell, "On the Ellipse," 3.

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<sup>&</sup>lt;sup>381</sup> See related discussion in the "Introduction" of Chapter 4 above.

the catalogue for a 1970 exhibition at the Tate Gallery, for example, curator Michael Compton wrote that "things seem to have material existence which do not and things which do have a material seem not to. Break down can occur in either direction." <sup>382</sup> Critic Douglas Kent Hall described how, "constantly in flux, the pieces flow, they appear to liquefy; they seem to disappear, then re-form."<sup>383</sup> Curator David Willard found that "planes of glass which seem to be solid vanish from view; our senses are deceived, and what appears to be present is not, and what is physically in front of us ostensibly disappears as we shift our position." <sup>384</sup> Illusions proliferate and phenomena are neither accurate nor straightforwardly inaccurate. The frequency of such perceptual conundrums demands that we turn to an intense and inefficient mode of visual scrutiny—a kind of viewing often underdeveloped, for the most part unused, and perhaps altogether untried. Gazing with extreme concentration promises new findings but first takes practice. Bell himself started developing this skill early on, both in and out of the studio, by experimenting with material while paying very close attention to precisely how it looked.

<sup>&</sup>lt;sup>382</sup> Michael Compton, "Three Artists from Los Angeles," *Larry Bell, Robert Irwin, Doug Wheeler* (London: The Tate Gallery, 1970), 8.

<sup>&</sup>lt;sup>383</sup> Douglas Kent Hall, "Shaping Light: Light & Illusion in the Work of Larry Bell," *Zones of Experience: The Art of Larry Bell* (Albuquerque: The Albuquerque Museum, 1997), 48.

<sup>&</sup>lt;sup>384</sup> David Willard, "Foreword," *Contained Space and Trapped Light: Larry Bell's Sculptural Environments* (Boise: Boise Gallery of Art, 1986): unpaginated (first page).

### III. First Lessons

In 1957, when Bell was eighteen, he enrolled at the Chouinard Art

Institute in Los Angeles. One of his teachers, twenty-eight-year-old Robert Irwin,
emphasized a fundamental lesson, Bell recalled: how "not to be afraid of your
materials by bringing the cost of them down to where it's workable for you to
experiment a lot." For example, Bell continued, Irwin "showed people... how
to buy colors cheap, colors in oil from Standard Brands for 39¢ for a pint instead
of \$1.50 for a little 50 c.c. tube. How to buy real syrupy cheap paint and add
cornstarch to it to make it just the same consistency as the paint out of the tubes. [.
..] That was really important stuff for most people." During Irwin's watercolor
class a year or so later, Bell enjoyed a rare triumph in art school—the out and out
praise of an instructor. "One night we all did a still-life, and Bob got excited about
what I'd done, and called everyone over and carried on about the spirit of it, and
the looseness, how I had really started to break free of the fear of this very loose

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<sup>&</sup>lt;sup>385</sup> Bell in De Angelus, "Larry Stuart Bell" interview transcript, 10. Bell described his friendship with Irwin in De Angelus, 84–85. In 1997, Irwin remembered Bell's "extremely good intuition and great instincts" as a student at Chouinard. See Irwin in Wesley Pulkka, "Evolving Visions," *Albuquerque Journal* (February 16, 1997): D12.

<sup>&</sup>lt;sup>386</sup> Ibid., 10–11 (phrases reordered). Bell confirmed that "the biggest thing that I got out of studying with Irwin was the confidence to become an artist." See Pulkka, "Evolving Visions," D12.

medium."<sup>387</sup> Watercolor turns out to be a surprisingly demanding substance and well worthy of students' anxiety. Nimble handling seems one's only hope against the paint's tendency to run but then also promptly dry, depositing time and again an ungenerous register of awkward strokes. The common advice is to embrace the fluidity of the solution: depict an arrangement of flowers or fruit yet also let the paint do what it will. Bell's still-life that day achieved this tricky balance of image and medium, of representation and reality.

Around this time, Bell's job at The Picture and Frame Mart in Burbank allowed him to experiment with other possible kinds of material and visual phenomena. He adapted several so-called shadow boxes, shallow rectangular wood structures with a glass front used for displaying and protecting items inside (fig. 5.1). Instead of adhering to this conventional usage, Bell recessed the glass face, scored its surface with a stylus to create a meandering horizontal crack, and laid blue paper atop the inner rear panel. True to Irwin's lessons at Chouinard, Bell experimented with a common material and, as a result, discovered its uncommon visual possibilities.

Light shining into one box from 1959 brings about intriguing phenomena. The solitary crack, for instance, casts two parallel striations behind it. "When you looked into the box," Bell observed, "you would see three lines: the crack, the

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<sup>&</sup>lt;sup>387</sup> Bell, "First Person Singular," 14.

reflection of the crack, and the shadow of the crack, all visible against the single piece of paper."388 These three lines can also appear oddly incommensurable despite their ultimate correlation. The crack itself is thin, sharp, and distinct while its reflection and shadow are softer and fainter. Tiny faceted scallops where the glass sheared off or splintered yield small hazy pools of dark and light upon the blue paper. These and other corresponding features of each contour fall out of sync as the viewer or the source of illumination changes position. And while the reflection is pale blue and the shadow dark blue (the predictable increase and decrease in value proportionate to the added and reduced amount of light striking the blue paper), the crack itself seems colorless, difficult to assign a hue with certainty. Usually we get cracked glass fixed; there is no time to stand around examining its capacity to cast both reflections and shadows. Bell, however, decided to break a pane on purpose because he was curious to see how it would look. The phenomena he discovered exemplify what we do not normally give ourselves a chance to see.

A second shadow box from 1959 demonstrates Bell's growing interest in a particular visual phenomenon similar to the incongruity between the figurative image and the aqueous paint in his watercolor: the disparity between pictorial and

<sup>&</sup>lt;sup>388</sup> Ibid. See also Larry Bell, "Another Lesson," *Larry Bell: The Sixties* (Santa Fe: Museum of Fine Arts, Museum of New Mexico, 1982), 4; Bell, "In Reflection," 1997, 54; and Larry Bell, audio recording of lecture, Museum of Contemporary Art, Los Angeles, April 1, 2004.

physical volume (fig. 5.2). On the box's transparent front pane, Bell incised what he called a "tessera," a hexagonal outline that reads as the axonometric projection of a cube, in other words, as a representation of a cube whose angled sides are receding into non-existent depth. On the rear mirrored glass, he scraped away a silhouette of the same form turned upside down. <sup>389</sup> Confusingly, pictorial and physical depth seem to coexist and perhaps even to intersect before the eyes. The tessera in front appears to recede into the four inches between glass panels while the one behind it seems to project into the same volume of space. Other puzzling phenomena further jumble any stable perceptual understanding of this box's interior. From head-on and at eye-level, it is possible to mistake the contour and cracks in front as features of the rear mirror reflecting them.<sup>390</sup> In this case, the two glass surfaces appear to be one, eliminating the distance between them and compressing the box. At an angle, however, the inside looks deeper than it is, not shallower. The inner wood frame doubles in the mirror and seems to extend beyond the actual back. Examining this object accentuates the considerable effort that perceiving phenomena in Bell's art may entail. His works may teach but learning from them is not easy.

<sup>&</sup>lt;sup>389</sup> Bell applied the shiny specks of mirroring scraped from the rear onto the painted frame. See *Larry Bell: The Sixties* (Santa Fe: Museum of Fine Arts, Museum of New Mexico, 1982), 6.

### IV. Pictorial Volume

Experimenting with the shadow boxes got Bell interested in volume and vision, which he then investigated further with the more established medium of paint on canvas. He made pieces with spatial imagery deriving from two sources, an irregular support and colored forms upon it.<sup>391</sup> "I started painting a simple volume with one color onto the shaped canvas," itself already a "geometric illusionary volume," he recounted.<sup>392</sup> *My Montauk* of 1960, for instance, is the same hexagonal form as what Bell called a tessera and, like that shape, suggests a depicted cube with foreshortened sides (fig. 5.3). Varying kinds of pictorial space clash when one perceives the piece. As you run your eyes up the upper right

<sup>&</sup>lt;sup>390</sup> Bell had a practical attitude toward the cracks that emerge from the corners of the hexagon. "I was trying to cut the tessara shape but the lines just happened at the time and I left [them]." Larry Bell, statements to author, October 25, 2007.

<sup>&</sup>lt;sup>391</sup> For brief discussion of the similarities between Bell's and Frank Stella's shaped canvases, see Donald Bartlett Doe, "Rational Illusion: Larry Bell's Works in Glass," *Larry Bell: Major Works in Glass* (Lincoln, Neb.: Sheldon Memorial Art Gallery, University of Nebraska, Lincoln, 1983), 3. Michael Fried analyzed Stella's shaped canvases and developed the concept of "deductive structure" wherein the bands on the surface of a painting derive from its framing edge. See Michael Fried, "Shape as Form: Frank Stella's New Paintings," *Artforum* 5 (November 1966): 18–27; and Michael Fried, *Three American Painters: Kenneth Noland, Jules Olitski, and Frank Stella* (Cambridge, Mass.: Fogg Art Museum, 1965). For William Rubin's response to Fried's concept, see William Rubin, *Frank Stella*, 1970–1987 (New York: Museum of Modern Art, 1987), 15–20; as well as Frances Colpitt, "The Shape of Painting in the 1960s," *Art Journal* 50, no. 1 (Spring 1991): 52–56.

diagonal edge, it appears to recede back and to the left, away from the black (which seems to be the front) toward an unseen rear. Looking down the lower left diagonal reveals another sort of withdrawal. It seems to descend off to the right, from the black (now, the top) toward a bottom face. And both these readings of foreshortened edges vanish at the upper left and lower right corners. Here the painting stays flat, nothing more than white adjoining black on the canvas surface. It is curious to see an expanse of color alter so profoundly—here receding left, there right, and elsewhere lying flat. To be able to discern these multiple spatial possibilities and other visual phenomena in the painting, one must be willing to experiment a bit with an exceptionally attentive mode of vision. By studying the piece from different angles, by concentrating upon it for longer than usual, one can acquire knowledge beyond that which everyday seeing makes available.

The interior black rectangle in *My Montauk* does not look volumetric on its own but a red irregular hexagon in *Little Blank Riding Hood* of 1961–62 resembles a brick on its side. Although elongated, this tridimensional form is somewhat similar to what Bell described as "straightforward definitions of the

<sup>&</sup>lt;sup>392</sup> Bell, "First Person Singular," 15 (phrases reordered). Bell also described these pieces as "efforts to define the cubic volume by the canvas shape" and the interior painted forms as "an attempt to alter the volume [from] within the canvas plane." See *Larry Bell: The Sixties*, 12.

<sup>&</sup>lt;sup>393</sup> Note that both diagonals participate in both views of spatial recession. Likewise, looking up or down either diagonal can suggest either view. However, given the placement of the black rectangle, looking up the upper right diagonal and looking down the lower left diagonal will most often convey, respectively, the front-to-back view and the top-to-bottom view.

diagrammatic volume of a cube" (fig. 5.4). 394 The solid seems to sit in an ambiguous location, either below and to the left of the viewer (with its top and right side showing) or above and to the right (with its bottom and left side visible). Or, the red form may appear as just what it is, flat. Attempts to pinpoint where the projective views flip-flop and flatten out in these paintings only result in additional intriguing phenomena. How the eyes pass across My Montauk matters, making one or another kind of space more likely to register. The upper white band maintains its bidimensionality from the corner almost to the opposite diagonal edge as one's gaze sweeps right. Yet if the eyes start at that diagonal and inch to the left, a contrary perception of depth holds up almost to the far corner. Little Blank Riding Hood's red hexagon appears as such when close to the work, then suddenly volumetric as you step backward. With both paintings, incongruous spatial possibilities continually supplant one another. This visual ambiguity strays from the everyday. Usually, when studying a piece of art or anything else in the world from several distances and positions, one becomes better prepared to sort out optical illusions and to home in on a single correct understanding of what lies before the eyes. Bell's paintings stave off such clarity. Intensive perception of

<sup>&</sup>lt;sup>394</sup> Bell, "Another Lesson," 4. A reproduced image of *Little Blank Riding Hood* is turned 90 degrees counterclockwise from *Larry Bell: The Sixties*, 12; to Claudine Humblet, *The New American Abstraction*, 1950–1970, 3 vols. (Milan: Skira Editore S.p.A., 2007), 2:1142. Bell confirmed that he permits such rotation. "There is no prescribed orientation to the works," he wrote. "I have always striven for that kind of symmetry. In the case of horizontal images

their phenomena puzzles the mind, and, for that very reason, constitutes new knowledge.

Another painting offers a different spatial paradox. Contrary views sit side by side in *Lux at the Merritt Jones* of 1962, instead of replacing one another in turn (fig. 5.5). Bell commented that for this painting he "altered the space inside to create a volume in a volume"—as with *Little Blank Riding Hood*—but in addition "made the canvas the shape of the image."<sup>395</sup> In other words, edges align from the outer contour of the inner beige strip of unpainted cotton duck, to the surrounding painted white band, to the stretcher bars themselves. Image and support coincide. The central blue hexagon offers still another likeness of the canvas, except flipped over, listing left, and a bit askew. As with this shape, the numerous diagonals throughout the piece seem foreshortened, encouraging one to understand the areas of color they delimit as spatial solids receding into depth. Three nested blocks then, blue inside beige inside white, exemplify the volumes in volumes Bell sought for this painting.

When examining *Lux at the Merritt Jones*, these nested forms draw the eyes and mind into conflict. What we see fails to abide by previous experience

[paintings wider than they are tall], they work flipped 180 degrees but do not work so well flipped 90 degrees." Bell, statements to author, January 11, 2008.

<sup>&</sup>lt;sup>395</sup> Bell, quoted in Melinda Wortz, "In Consideration," *Larry Bell: New Work* (Yonkers, N.Y.: The Hudson River Museum, 1980), 11 (phrases reordered).

and cognitive understanding of the world at large. The apparent encasement of rectangular solids implies a unified, consistent space and yet the central blue form seems to contradict this conclusion. The white and beige diagonals in the piece convey recession up and left or else down and right whereas the shortest blue diagonals suggest a contrary withdrawal, up and right or down and left. As one perceives these phenomena, it becomes necessary to consider the odd possibility that the painting accommodates multiple versions of space, all visible at once.

Stepping through the discordant combinations that *Lux at the Merritt Jones* offers makes for an arduous perceptual exercise. First, hold the blue steady in your view and make the white flip back and forth between its two receding trajectories (again, either up and left or down and right); repeat this shifting of the white with the blue's other orientation; now, halt the white and move the blue this way and that; then, invert the blue and white in unison so that both go up or down while one goes left and the other right; and, finally, try the other coupling where both go left or right together as one goes up and the other down. Involving the beige as well—it too can reverse along with or against the white—adds even more variety. Graphic elements such as lines (either painted or an actual edge) and polygons (a field of applied color or the contour of the support on the wall) by turns corroborate and contradict one another's pictorial depth. The visual

phenomena and the autonomous versions of space made manifest by the painting alter nonstop. 396

Aloft one moment and recumbent the next, the bobbing viewpoint and other mutable phenomena in *My Montauk*, *Little Blank Riding Hood*, and *Lux at the Merritt Jones* may trouble the eyes little. Nonetheless, this instability startles the mind to be sure. Solids should not rock to and fro; things are supposed to stay put. Not so here, as volumes inside volumes prove incompatible with a single setting. This discovery undermines the common assumption that paintings, figurative or not, depict an expanse that obeys the usual physical laws with which we are familiar. Indeed, close examination of the phenomena to which Bell's pieces give rise entails the opposite conclusion: If anything, it seems curious that color atop stretched canvas should ever resemble the uniformity and coherence of real space or, for that matter, be expected to do so. Careful study of Bell's works leads one to this knowledge, startling if for other reason than that it makes clear how many paintings do adhere to the spatial behavior one finds in the everyday world.

<sup>&</sup>lt;sup>396</sup> See *Larry Bell: The Sixties*, 12; and Bell, quoted in Melinda Wortz, "Larry Bell: Through the Looking Glass," *Larry Bell: Works from New Mexico* (Lyon, France: Musée d'Art Contemporain, Lyon, 1989), 62.

# V. Physical Volume and Reflected Volume

In the course of making paintings to learn about pictorial volume, Bell grew dissatisfied with the illusionism of colored forms on canvas. "Two-dimensional shapes were not strong enough for me. They needed something else to strengthen the imagery," he determined. Prior experiments with esoteric phenomena provided a solution: "One thing that came back to me was the glass I had played with in the frame shop." Bell had noted how this commonplace material offers rare combinations of appearances. "The surface quality was different from anything else I had been familiar with[.] Hard, reflective, transparent, and it was possible to make it all of those things at one time." Glass can sustain varied types of visual appearances—its own physical aspect (a pane's flawless finish, say); added imagery on either or both sides; and views of its surroundings from the reflection, refraction, or transmission of light. But, as Bell noted, such parsing of the visible flux belies one's actual experience. Observing how a pane looks means perceiving this all together and at once. In

<sup>397</sup> Bell, "Another Lesson," 4.

<sup>&</sup>lt;sup>398</sup> Bell, "First Person Singular," 15.

<sup>&</sup>lt;sup>399</sup> Ibid., 16.

several of his subsequent paintings, Bell fortified pictorial imagery with real space and the nonpictorial phenomena glass makes possible.

Consider Conrad Hawk of 1961 (fig. 5.6). At the back of its open core, a transparent glass panel rests against and exhibits the color of the surface upon which the painting hangs (white, assuming standard gallery walls). Bell remarked that he "liked the work's feeling of simplicity, and the fact that the imagery now included the wall behind."400 The piece does look simple enough at first glance—just the white square of wall and the two black angles on otherwise unpainted canvas. A closer look reveals considerable complexity, however. Together, the black areas resemble the tessera shape with which Bell had experimented in the shadow boxes. One sees a hollow cube that shifts from side to side, receding up and right then down and left. The central recess and glass converge with this pictorial form, participating in its illusions. For example, the support's shallow physical depth seems to substantiate the cube's deeper illusionistic depth: it can be hard to tell where the former ends and the latter begins. And the glass appears to oscillate as well. Under ambient illumination, the square looks matte white and stays put at the rear of the cube; when struck by direct light, a brilliant sheen seemingly makes the shape emerge and sit up front. The real space and luster in the center of *Conrad Hawk* make its pictorial illusions

<sup>400</sup> Bell, "In Reflection" (1997), 54.

stronger, that is to say, both more ambiguous and more convincing. Various kinds of visual phenomena heighten one another.

Works with mirror followed soon after, complicating pictorial and physical volume with another kind of phenomena—reflections. "Rays [of light that strike a mass and then mirrored glass] create a picture that looks just like the original object and appears to be just as far behind the mirror as the object is in front of it," Bell observed, pointing out one exception. "There is, however, a subtle difference between object and mirror-image, as we all know: you brush your teeth with your left hand, but that mirror person seems to be a righty.",401 Such doublings and reversals multiply the paradoxical phenomena typical of Bell's paintings, as in A Wisp of the Girl She Used To Be of 1963 (fig. 5.7). Bell lined the interior edges and rear of this work's central bay with mirror. In front and flush with the canvas surface, he placed an intricate eighth-inch-thick sheet of glass—a tessera-shaped panel with opaque mirrored bars on the side facing inward, sandblasted contours around transparent areas on the side facing outward, and, also on the exterior, the sandblasted latticework of a smaller transparent tessera. Pictorial, physical, and reflected volume jostle among each other as a result of this complicated treatment, bringing about odd visual phenomena and the chance to discover something new about how things can look.

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<sup>&</sup>lt;sup>401</sup> Larry Bell, *Chairs in Space: The Book of the Game* (Taos, N.M.: Webb Design Studio, 1984), 22 (supplemented for clarity).

To begin with, two pictorial volumes vie in *A Wisp of the Girl She Used To Be*. The canvas's acrylic white and black regions and the glass's mirrored and clear sections suggest embedded cubes withdrawing in opposite directions. Elsewhere, physical space and pictorial space collide. The three inches behind the glass at first evince but then ultimately deny the tessera's apparent extension into a much deeper field. And, throughout the piece, reflections duplicate and displace both physical and pictorial volume. The rear mirror reflects the small tessera in the very center of the front panel, giving rise to imagery of a receding cube three inches beyond the back of the painting, as Bell said, as far behind the mirror as the original sandblasted lines are actually before it.

Curious phenomena also arise where the mirrored areas of the two central panes face one another. Some light rays enter the transparent openings in front, bounce off the back mirror, and then rebound off the inside of the front panel rather than passing through, only to return to the rear mirror and ricochet again. As these beams zigzag about, they create the appearance of an infinitely compounded space on both sheets of glass. One even finds other effects around the support itself. Bell commented on how its perimeter, sheathed in mirror as well, "reflect[ed] the wall the piece was hung on[, causing] the appearance of the

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image floating away from the wall plane."<sup>402</sup> Precedents for these phenomena are rare. <sup>403</sup> What prior visual experience we do happen to have often provides little help. One can only continue perceiving as closely as possible in order to learn why things appear how they do, arriving at conjectures after strenuous examination, then testing those with additional observation. The reward for this effort is new knowledge, some experience of the striking visual phenomena made possible by ostensibly mundane glass and mirror.

Bell considered art justified if the artist learns from it, but comprehending the wider implications of raw phenomena can be difficult. "The fact that mirrors could contain the depth of whatever they reflect was something that was intriguing," he realized, "although I wasn't quite clear about what that meant." Discovery outpaces your ability to communicate it to others and even to ponder it yourself. New language, lines of inquiry, distinctions, and principles need to be developed alongside new knowledge. Short of such solutions at first, Bell's intuitive curiosity in the peculiar visual and spatial properties of glass sufficed. He

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<sup>&</sup>lt;sup>402</sup> Bell, statement in *Larry Bell: The Sixties*, 14 (supplemented for clarity). Bell described using the same technique for an untitled 1962 painting in this exhibition catalogue.

<sup>&</sup>lt;sup>403</sup> Note, however, the mirrored glass and resultant optical displacement in works by Robert Morris (such as *Untitled (Mirrored Cubes)* of 1965), Robert Smithson (such as *Enantiomorphic Chambers* of 1965), and by many other artists during this time.

<sup>&</sup>lt;sup>404</sup> Bell, "First Person Singular," 16.

kept experimenting with and then perceiving the unaccustomed phenomena his art brings about.

## VI. New Constructions

Touch can usually differentiate objects and illusions with ease. Vision seldom has any trouble either, given the customary successes of everyday seeing. Bell's art, however, assays our expertise in making such determinations. After introducing clear and mirrored glass into the paintings, he used the same materials to fabricate a series of tridimensional constructions in which the dissimilarities between physical, pictorial, and reflected phenomena turn out to be surprisingly elusive. The resulting moments of perceptual confusion, when you find yourself unable to offer a confident and instantaneous assessment of material nature based upon visual appearances, confirm the unfamiliarity of the encounter. When trusted shortcuts flounder, one can only look that much harder, and, as Bell said, try to perceive something new by letting the art teach.

This strategy of patient yet intense perceptual openness helps with the curious phenomena one finds when observing *Death Hollow*, *The Aquarium*, and an untitled piece, all from 1962–63 (figs. 5.8–5.10). These objects resemble enlarged shadow boxes seen in axonometric projection. Both physical and

pictorial, fully volumetric and yet also imagistic, they look as if Bell has relocated forms from his paintings into real space. That is to say, if a tessera pictorializes a cube (inasmuch as it can be seen as a bidimensional representation of tridimensional solid), *Death Hollow* appears to hypostatize a tessera (as if it were a tridimensional representation of that bidimensional representation of a tridimensional solid). "I started working on constructions that were the same shape as the canvas cubic volumes, but didn't hang on the wall," Bell recounted. "They were free-standing pieces, but still about the illusion of the volume of the cube." Making physical objects in order to investigate pictorial imagery may seem an odd choice, but Bell wanted to perceive phenomena out of the ordinary.

Physical and pictorial space compete anew in Bell's constructions. When viewing a tall, wide, and thin stretched canvas against the wall, illusionistic volume tends to predominate. A tessera's obtuse corners convincingly suggest a cube's right angles seen from an oblique position; the short diagonal sides imply a length understood to be equal to the others, just pivoted and receding into depth. By contrast, the squat bulk of *Death Hollow* confirms its own real volume. The diagonal edges of the tessera-shaped front and back panels appear as they actually are—short, not foreshortened; physical and not pictorial. And yet you cannot shake a sense of depth when examining the inner concentric tesserae upon the

<sup>&</sup>lt;sup>405</sup> Ibid., 15.

glass, which look like nested cubes. The various phenomena one perceives when studying Bell's constructions convey opposed understandings of their ultimate material reality. Instead of a headlong effort to settle upon one solution as quickly as possible (the protocol for everyday vision), one can instead slow down and keep looking in order to appreciate the unusual visual experience of opposed kinds of space.

But more than setting real and depicted space at odds, the constructions begin to fuse them. While the incongruity between a three-inch-thick support and a tessera's deeper illusionistic volume remains discernible in *Lux at the Merritt Jones*, the swept boxy form of *Death Hollow* seems about as deep as some of the cubes suggested by the tesserae upon its panels. Physical and pictorial volume coalesce as opposed to openly conflicting. The resultant visual parity feels very strange, as if some tesserae are both bi- and tridimensional at once. Of course this proposition cannot be true, but therein lies discovery. Bell's works frequently demonstrate that their peculiar phenomena do not always adhere to the pat laws of physics.

Along with the tessera-shaped glass constructions that may suggest cubes, Bell also fabricated actual cubes. "I decided to stop making illusions of the volume of the cube, that it was not taking me anywhere," he acknowledged. "I

wanted to make the volumes themselves, make the cubes."406 In an untitled 1962 example, the six panes have a mirrored ring and ellipse on the inside and sandblasted counterparts on the outside (fig. 5.11). These forms may stay flat and still. Or, a combination of pictorial illusion and anamorphosis can occur: "As your eye moved," Bell found, "the ellipse divided into combinations of interlocking shapes."407 First off, the ellipse on each panel calls to mind a foreshortened circle set inside a circular opening, a disc angled half within the cube and half without. Then, when you shift from one position and line of sight to another, the ordinary distortion of human vision animates this illusion. The ellipse distends as if it were a rotating circle—just short of perpendicular to the pane when seen straight on and increasingly coplanar as one takes an extreme raking viewpoint. "Which side was forward, which side was back?," Bell mused. "[The early cubes] created a spatial or visual flip-flop . . . that was quite similar visually to what the flat diagrams of the cubes had done."408 Pictorial imagery on this cube (the ellipse, inasmuch as it suggests a pivoted circle) anticipates anamorphosis (the warping of that same ellipse when seen from the side). This is an odd phenomenon: a depiction of distortion itself distorts. By studying such esoteric appearances, more

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<sup>&</sup>lt;sup>406</sup> Ibid., 15–16.

<sup>&</sup>lt;sup>407</sup> Bell, "On the Ellipse," 3.

<sup>&</sup>lt;sup>408</sup> Bell, "First Person Singular," 17 (phrases reordered).

carefully than we tend to see the world around us in the course of everyday life, Bell thought that we could discover a bit of new visual knowledge.

Perhaps some of what you learn by scrutinizing Bell's objects and the phenomena they create remains esoteric. Examining volumetric paintings and pictorial volumes teach you about how physical, depicted, and reflected space can interact and intersect before the eyes. Sheets of glass—mirrored on one surface and sandblasted on the other, with transparent areas alongside—beget uncommon phenomena as images form and deform. The practice itself of perceiving with heightened sensitivity, however, is far from esoteric. Taking a closer look at something well-known or completely new can lead to unexpected knowledge about it. Having learned by thoroughly perceiving his artworks, Bell felt ready to put his discoveries to use by asking and answering new questions. Art, as his work demonstrates, is both the manifestation and the means of learning.

#### VII. Light

Thinking back on the constructions, Bell maintained that "it wasn't long before I realized that volume was my main concern, but sadly it was still only an illusion."409 Some features of these works are not pictorial, however, and

<sup>409</sup> Bell, "Another Lesson," 4.

demonstrate the beginning of a shift in Bell's interests away from apprehending imagery and toward perceiving the behavior of light itself. Reflections contribute to the mutable spatiality of *Death Hollow* and *The Aquarium*, for example. Also, inside the untitled 1962–63 construction, Bell recounted that "silverleaf was applied to the surface to reflect and diffuse the interior light." This work's glowing center seems to expand beyond its exterior, an effect of ambient illumination rather than representation. Thanks to several series of works up to this point, Bell had made discoveries about pictorial space. With the ensuing cubes, he instead privileged light in hopes of learning as much about it.

Starting with the painting *Ghost Box* of 1962–63 (fig. 5.12), Bell used the industrial process of vacuum-coating to create imagery and tweak the visual phenomena glass creates (fig. 5.13). When I discovered the subtle visible changes possible using this technique, I became fascinated with it. 'Charmed' is a better word," he wrote. In this procedure, high-voltage electric current vaporizes aluminum (or other metals and minerals) within an airless chamber. A thin film settles onto anything placed inside as the gaseous substance disperses.

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<sup>&</sup>lt;sup>410</sup> Bell, statement in *Larry Bell: The Sixties*, 18 (supplemented for clarity).

<sup>&</sup>lt;sup>411</sup> Bell identified *Ghost Box* as his first use of vacuum-coated glass in *Larry Bell: The Sixties*, 14.

<sup>&</sup>lt;sup>412</sup> Bell, "In Reflection" (1997), 56.

<sup>&</sup>lt;sup>413</sup> See [Larry Bell,] "Explanation of the coating process," printed sheet, Larry Bell Studio archives, Taos, New Mexico. See also Bell in De Angelus, "Larry Stuart Bell" interview transcript, 108–19.

The untitled 1962 cube's mirrored rings and ellipses result from the deposition of aluminum onto unmasked areas of glass, saving Bell the trouble of scraping away large areas of a household mirror's reflective surface to bring about the same forms and visual effects (an arduous process he had used to produce the tessera in one of the early shadow boxes and again for the stripes of *Larry Bell's House*, *Part II* [fig. 5.14–5.16]).

Likewise, to make the checkered panels of *Bette and the Giant Jewfish* of 1963 (fig. 5.17), Bell explained that "the pattern was applied by silkscreen, then washed off after the panels were vacuum-coated with aluminum, leaving the screened areas open for visual access to the interior." Years of looking at mirrored glass and through transparent glass do not quite prepare one for the phenomena that result when these same surfaces are juxtaposed in an alternating arrangement. Gazing head-on at any single panel of *Bette and the Giant Jewfish* yields a disjunctive field. A view of the space actually before you recurs in every transparent square, interrupted by sights of the space behind you in each mirrored area. Looking in at an angle reveals the work's complicated interior. At certain points, you see straight through the object. At others, the inner faces of the mirrored squares reflect light entering from the other five sides. Or these shiny surfaces may reflect the mirroring opposite them, and those areas the surfaces

<sup>414</sup> Bell, statement in *Larry Bell: The Sixties*, 20.

opposite them, and so on. These visual phenomena can challenge or even overwhelm one's understanding of the fixity and solidity of the glass; the volume within the cube appears to extend far beyond its material confines. Perceiving these intriguing visual effects can amount to new knowledge. An uncommon mode of perceptual scrutiny may expose one to phenomena that had previously escaped notice.

Bell's elimination of imagery from the cubes was gradual. Some of the works fabricated between 1962 and 1965 retain it, but as Bell pointed out, one also finds a new nonpictorial function (figs. 5.18–5.21). "I began with . . . a pattern that would break up the space of the cubes, that would let your eye settle on or look through them [. . . and] give a depth reference to what light was reflected off the surface and what light was transmitted through." A mirrored ellipse on the inside of a given panel and sandblasted counterparts on the exterior situate otherwise transparent glass, providing some perceptual confirmation of a cube's material structure and actual volume amid all the ricocheting light. One can then follow the reflections of these discrete forms around the piece, unraveling its compounded interior step by step. "Representing volume, created with light, reflected and transmitted, was now part of my process," Bell

<sup>&</sup>lt;sup>415</sup> Bell, "First Person Singular," 17; and Bell, "On the Ellipse," 3.

submitted. 416 Yet the puzzling volumes created through the interplay of light and glass are not representations in the usual sense of that word. Mirrors double and displace; they do not depict. Bell was speaking loosely here, but the distinction remains significant. 417 The ability to differentiate physical, pictorial, and reflected space proves to be one of the central discoveries offered by a close study of his art.

Other odd phenomena likewise reward a viewer's careful perception.

Milky yellow reflections of the gallery floodlamps overhead appear atop the bottom panel of an opalescent and image-less work from 1964 (fig. 5.22). Beside these bright spots lies a series of increasingly smaller, deeper, and darker (shifting from gold to amber to red) compound reflections where light bounces from bottom to top and back again inside the cube before exiting. The regular diminution and color shift of these luminous areas heighten the illusion of depth as one sidles up to the piece and peers down at the steepest of angles. An impossible, bottomless recess appears under or within the base panel, exceeding its true eighth-inch thickness as well as that of the four-foot acrylic stand and even of the surrounding multistory architecture. This illusion recalls pictorial space but results entirely from the physical reflections of light. Panels of coated glass, like

<sup>&</sup>lt;sup>416</sup> Bell, "In Reflection" (1997), 54.

<sup>&</sup>lt;sup>417</sup> On Bell's use of language, see related discussion in the "Conclusion" below.

mirrors, "contain the depth of whatever they reflect," as Bell said, even as they reflect prior reflections and multiply depth far beyond an initial and simple doubling. One seems likely to gain new knowledge from paying attention to these unusual visual experiences. By attending to the cubes with a mode of acute examination, one learns about those works as well as the countless and curious visual phenomena in the wider world. Glass, after all, is almost always around.

By 1965 Bell had eliminated imagery from the cubes altogether. Instead of the incongruities between pictorial and physical volume, he started to examine wholly non-pictorial visual phenomena. "The investigation of the cubic volume with just light passing through it" became Bell's aim, a focusing in on "nothing more than subtle changes in reflected and transmitted light." New materials served these ends. Up to this point, Bell had used surfaces readily distinguishable from one another—glass that is transparent (a store-bought pane as is), translucent (once sandblasted), or opaque (with mirroring). Having purchased his own vacuum-coating tank, he now modified sheets of glass to make their behavior more ambiguous. Just a glimmer of ambient illumination seeps through a 1966 blue-black cube, a strange sight given the proximity to but ultimate lack of true opacity (fig. 5.23). The greenish panels of a 1968 cube reflect about as much light

<sup>418</sup> Bell, "First Person Singular," 16.

<sup>&</sup>lt;sup>419</sup> Bell, "First Person Singular," 17; and Bell, "In Reflection" (1997), 54.

as they transmit, a largely unfamiliar appearance midway between, and in that sense distinct from, commonplace mirrors and windows (fig. 5.24). And the lustrous sides of a second 1968 work modulate through pink, yellow, ocher, purple, and violet from their center to the corners—a peculiar iridescent sheen seemingly unlike the look of most clear glass one encounters in daily life (figs. 5.25).

Bell's growing expertise with the coating process made possible a wider range of visual phenomena, an expanded palette of sorts. "The work began to flow with an ease that I had not experienced before," he remembered. "Most importantly, I was learning something new. The learning curve was dramatic, and in a very short time I produced a vast amount of interesting work." Observing the subtleties of light can spur new knowledge as one comes to see phenomena that usually go unnoticed. These fresh perceptions by turns followed from and led to new pieces. Bell used his objects to probe the strange visual experiences that perception registers when paying close attention.

Bell continued making the cubes through 1968 but, after more than five years, he was losing interest. "The cubes weren't really changing, and I started to feel like I was copying myself," he admitted. "The only thing I could think to do

<sup>&</sup>lt;sup>420</sup> See Bell, statement in *Larry Bell: The Sixties*, 24.

<sup>&</sup>lt;sup>421</sup> Bell, "In Reflection" (1997), 56.

was to stop producing, stop my studio activities, and just look at the work, study the work that I had done over the last year or several months to see what the next step would be. . .. When the work developed and changed without it being an issue, that was great. But when it didn't, it was time to stop and look at it." He stopped, he looked, and he discovered. "As I sat there, day after day, just looking at the work, trying to figure out the next step, I realized how completely my interest had come to be how the colors met at the corners [and] the way the color faded from the corners toward the center of the glass in each piece" (fig. 5.26). 423

Paying heed to this realization, he gave up the form that had structured his practice for years and began to vacuum-coat large sheets of glass, arranging them perpendicular to one another. "It was only natural that I get rid of the cube format and just make big corners," Bell explained. "The simpler construction made it possible to make them larger[,] big enough to include my peripheral vision." The greater scale of the panels in a work such as *The Iceberg and Its Shadow* of 1975 means that a viewer must move throughout the gallery to get a look, as opposed to the tighter circling around a cube or a semi-circular path before the paintings (fig. 5.27). Optical effects arise and vanish as you withdraw from, pass

<sup>&</sup>lt;sup>422</sup> Ibid., 17.

<sup>&</sup>lt;sup>423</sup> Ibid., (phrases reordered). See also Bell, "In Reflection" (1997), 56.

<sup>424</sup> Ibid.

alongside, and approach various sections of this work. Similar phenomena occur in the earlier pieces, too, of course, but the increased height and breadth emphasize the role of the viewer's position and motion. Bell's aim all along was to create, perceive, and learn about esoteric visual phenomena. To keep discovering, he started using glass to alter one's perception of room-sized spaces. 425

VIII. Conclusion: Words

Unfortunately, language often falls short of conveying esoteric discoveries with much accuracy. In late 1969 Bell modified a Museum of Modern Art gallery by painting the walls, floor, and ceiling black and then installing glass rods throughout the space. 426 He set out to construct a similar environment at the Tate

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<sup>&</sup>lt;sup>425</sup> Several artists had begun to enlarge their works to the scale of an entire gallery: Ed Kienholz's *Roxy's with Five Dollar Billy, Cockeyed Jenny, and Miss Cherry Delight* of 1960–61; James Turrell's Shallow Space Constructions of 1968–69; Judd's sheets of galvanized iron lining the walls of the Castelli Gallery in 1970; and Irwin's black line volume, installed at the Chicago Museum of Contemporary Art from 1975 to 1976; among many others. Jennifer Licht's 1969 show "Spaces" at the Museum of Modern Art examined this trend with works by Michael Asher, Bell, Dan Flavin, Morris, Pulsa, and Franz Erhard Walther. See Jennifer Licht, *Spaces* (New York: The Museum of Modern Art, 1969).

<sup>&</sup>lt;sup>426</sup> See Licht, *Spaces*, unpaginated (sixth and fourteenth pages). In his catalogue essay for the Tate Gallery exhibition, Michael Compton included a description of the earlier MoMA piece, which "comprised a room, divided into two by a partition, painted black throughout and in almost total darkness. Glass elements picked up and reflected the faint light source in the doorway but the most conspicuous 'things' in the room were the after[-]images and the flashes and blurs produced by one[']s own optical system—visual noise." See Michael Compton, "Larry Bell," *Larry Bell, Robert Irwin, Doug Wheeler* (London: The Tate Gallery, 1970), 18.

Gallery a few months later, only to find the interspersed glass segments unsatisfactory. Bell tried eliminating the rods altogether, which, strangely enough, restored the character of the perceptual experience offered by the original room. In an interview with Frederick Wight soon after, Bell struggled to articulate this unexpected outcome. "All the elements of discovery and intuition were right there"—a confident explanation, but language gave out as he continued—"I mean they just, you know, I recognized the option, the ability to,"—he muscled through a second adept summary—"I mean that finally what was the art was not the rods, wasn't even the room, it was the ability to say this,"—searching for the word least wrong—"this presence is what I'm, this is my art"—exasperated—"you see I don't know how to say it.""

Bell learned by perceiving phenomena. Not

Bell also painted a room in his 75 Market Street studio black for the "First National Symposium on Habitability." See *First National Symposium on Habitability*, 4 vols. (Los Angeles: Garrett Airesearch Manufacturing Company, [1971]), 4:2, 7; and Ed Wortz in Lawrence Weschler, "Irwin Supplement: Ed Wortz," in partially processed interview transcript, in "Robert Irwin Project Interviews" (Los Angeles: Oral History Program, University of California, Los Angeles), 4

<sup>&</sup>lt;sup>427</sup> Bell in Frederick S. Wight, "An Interview with Larry Bell," *Transparency, Reflection, Light, Space: Four Artists* (Los Angeles: UCLA Art Galleries, 1971), 57. In 1980, Bell confirmed that "I couldn't really talk about my work very well. [...] I just found myself not able to talk at all, about things in my mind. [...] If I knew what I was doing, I knew it only to myself, I couldn't externalize it any way except through the work." See De Angelus, "Larry Stuart Bell" interview transcript, 24, 85 (phrases reordered).

A 1972 interview provides another example. Bell explained to Alistair Mackintosh, "I've been preoccupied with that certain sort of 'look' of mine, if 'look' is the right word. I can't really describe it as sexy or sensual. The word I'm trying to think of is a word which would be contradictory to what the pieces actually are—'soft,' for instance. The pieces feel soft but you don't have to touch them to have that feeling." See "Larry Bell: An Interview with Alastair Mackintosh," 40. Mackintosh closed the printed version of the interview by noting that "Larry seemed glad that the interview was over. One felt that words did not come naturally to him and

surprisingly, he found it difficult to verbalize the process by which he discerned the space's initial unresponsiveness to perception, attributed this problem to the glass, and resolved to remove those heretofore integral forms in order to restore the sensory phenomena he sought. Words could not but distort what Bell discovered about the room, offsetting any gain in communicability.

Nevertheless, the historical recording and critical evaluation of art take place in words, and artists are expected to both endure and participate in the translation of the non-verbal phenomena their work brings about. Bell played along and gave it another go: "There is a complexity of what you are entering into[,] the relationship of the floor to your feet, the relationship of the floor to the wall, the relationship of the wall to the ceiling[.] All of these things become as much of an element of the room as the presence of the whole room." In short, as Bell had ventured earlier, "the room was doing what the rods did without the rods." These sentences must count as a success, about as well as Bell could hope to characterize new knowledge with old words. He had learned something but ordinary language could not quite capture the perceptual experience.

At times Bell went on the offensive. After a few questions from Wight, he considered a caveat necessary. "It doesn't have to do with words. What I say now

that he distrusted them. And his works are possibly less easy to describe and discuss than those of any other artist working today."

<sup>&</sup>lt;sup>428</sup> Bell in Wight, "An Interview with Larry Bell," 57–58.

comes second to what I feel." But even that seemed off, a little too literal. "It's not what I feel, it's another set of symbols." In the end, Bell had all the vowels eliminated from the printed version of this interview, rendering it close to illegible ("td sn'thvtd wth wrds..." instead of "[I]td[oe]sn'th[a]v[e]t[o]d[o]w[i]thw[o]rds..."). In 1967, apparently asked by curator Barbara Rose to identify "the central concern" of his practice for the exhibition catalogue, Bell refused to abide by the constraints of language, to pretend that words suffice. Here is his published response in whole:

Once an artist was having a small cocktail party for some friends. It was in celebration of his recent marriage. He brought out some kind of very expensive, hard to get, imported Danish cheese that he thought was fabulous. He passed a few samples of it to a few other "gourmets" of fine cheese, and they tasted it. Savouring each tiny nibble, rolling their eyes back in their sockets in sheer ecstasy, they finally asked if I wanted a taste. My friend said that would be like "casting pearls before swine." We all laughed and I had my taste.

<sup>&</sup>lt;sup>429</sup> Ibid., 41, 44. Bell made sure to identify graphical depictions as also unsatisfactory. He noted in a proposal that "The representations in this folder are approximate, general and speculative, as it is impossible to reproduce the infinite and varying visual activity of these surfaces by graphic means." See Larry Bell, "Proposal for the San Antonio Museum Association," 1979, 12 (Larry Bell Studio archives, Taos, New Mexico).

<sup>&</sup>lt;sup>430</sup> See ibid., 44.

As it turned out, I didn't like cheese. I'm afraid that is all I can tell you about the "central concern of my work."

Bell later confirmed the truth of this story but preferred to preserve the air of ambiguity about the identities of those involved. After all, his point seems to have been to answer nonsense with nonsense, to demonstrate for critics, curators, and historians in their favored medium of language the incoherence of asking artists to explain their works with words.

A similar coupling of playfulness and mistrust characterizes some of Bell's other experiments with writing. He composed an homage to his own monumental glass structure, *The Iceberg and Its Shadow*, by making substitutions for the main nouns and verbs in a list of celebrated quotations: Wilde's "There is luxury in icebergs [self-reproach]"; Chesterton's "Iceberg [Progress] is the mother of shadow [problems]"; Chekhov's "If you are afraid of shadows [loneliness], don't iceberg [marry]."<sup>433</sup> In 1982 Bell penned a dialogue between his dashing

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<sup>&</sup>lt;sup>431</sup> Larry Bell, statement in Barbara Rose, *A New Aesthetic* (Washington, D.C.: The Washington Gallery of Modern Art, 1967), 22. Bell rephrased this statement for the catalogue of another exhibition later the same year. See *Larry Bell* (Amsterdam: Stedelijk Museum, 1967), unpaginated (third page). Barbara Haskell also addresses this statement and Bell's experimentation with language in her 1972 catalogue essay. She notes that he considered a dedicating an exhibition to "Humpty Dumpty who knew the answer" and that he had an assistant label all of two thousand items in his studio, including "furniture, tools, art, radio, cameras, vases, etc." See Barbara Haskell, *Larry Bell* (Pasadena: Pasadena Art Museum, 1972), 6, 8.

<sup>&</sup>lt;sup>432</sup> Larry Bell, statements to author, December 14–15, 2007.

<sup>&</sup>lt;sup>433</sup> Larry Bell, untitled composition, *Vision* 1 ["California"] (September 1975): 37.

alter ego, "Dr. Lux," and the more reserved and otherwise unnamed "artist," presumably his usual disposition. <sup>434</sup> And Bell named catalogue essays from 1981 and 1997 "In Reflection," a pun on his thoughtful retrospective assessment of the work and the physical bending of light integral to it (a conceit in which these ricocheting interpretations of the title—first this reading, then the other, and back once more—instantiate the pun yet again, as does his reuse of the same title). <sup>435</sup> Bell's apprehension accompanied but never subdued his obvious verve for language.

As for the names of Bell's art objects, they often make associations without providing much in the way of explanation. *The Iceberg and Its Shadow* comprises 56 large rearrangeable panels of clear and gray glass standing side to

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<sup>&</sup>lt;sup>434</sup> See Larry Bell, "Dr. Lux and the Artist" in three sources: *On the Ellipse* (Newport Harbor, Cal.: Newport Harbor Art Museum, 1982), 19–20; part of an advertisement in *Artlines* 3, no. 7 (July 1982): 2; and an audio recording, Larry Bell Studio archives, Taos, New Mexico. The printed versions feature a double exposure photograph by J. Gordon Adams with Bell seemingly performing as Dr. Lux and the artist. See also Adams' cover image of two Bells in *Art News* 81, no. 4 (April 1982).

Bell included in "Dr. Lux and the Artist" a long passage from *Tales of Space and Time*, written by H. G. Wells in 1900. Bell referred to Wells several times and traded artwork to the Tate Gallery for a signed 1926 collection of the author's complete writings. See Wortz, "In Consideration," 23; Bell, "In Reflection" (1980), 76; Bell, "Another Lesson," 5; and Bell, "In Reflection" (1997), 53.

Bell used the moniker "Lux" as a signature in a letter to artist Ed Moses, microfilmed reproduction, [1964] (Washington, D.C.: Ed Moses Papers, Archives of American Art), roll 2033, frame 1214. Also, the symbol preceding "Bell" seems to merge "I," "u," and "x" in his city plan and handwritten statement reproduced in *Projets pour la Défense* (Nanterre, France: Établissement Public pour l'Aménagement de la Région de la Défense, 1974), unpaginated (ninth page). Several artworks contain the word as well in their title, including *Lux at the Ferus* (1961–62); *Lux at the Merritt Jones* (1962); various chairs, sofas, and desks from 1980–82 called the *Furniture de Lux*, and *Hydrolux I* (1986).

<sup>&</sup>lt;sup>435</sup> See Bell, "In Reflection" (1980), 74–77; and Bell, "In Reflection" (1997), 53–63.

side, resulting in a loose resemblance to, but not a depiction of, an iceberg and shadow. "I wasn't really thinking of it as an iceberg, to look like an iceberg," Bell commented. "I thought of the number of combinations of possibilities that were inherent in the entire thing as being sort of like an iceberg in the sense that at any given view of it, you were only seeing the tip of what was possible."

Earlier, Bell called his 1960 painting *My Montauk* in honor of Willem de Kooning's 1958 *Montauk Highway*; *Lux at the Merritt Jones* borrowed the name of a hotel near Bell's studio; and *Bette and the Giant Jewfish* got its title from an old postcard. Most of the glass cubes have no title. Finally, beginning in 1974, Bell also began to express his intentions in more conventional prose. Still wary though, he concluded one early statement with a disclaimer, cautioning that "since these words are only abstract symbols they may or may not be relevant!", 439

Instead of irony or perversity, Bell's tactics seem to stem from genuine frustration, less with language itself perhaps than with others' expectations that he

<sup>&</sup>lt;sup>436</sup> Bell in De Angelus, "Larry Stuart Bell" interview transcript, 79.

<sup>&</sup>lt;sup>437</sup> See *Larry Bell: The Sixties*, 6, 12, 20. In the late 1980s, Bell titled a series of collages according to "whatever came to mind," such as *Chicago Attempt*, *Tarantula!*, *Daisy's Bedroom*, *Measles*, and *Kiss My Bass*. Bell, "In Reflection" (1997), 61.

<sup>&</sup>lt;sup>438</sup> See, for example, Larry Bell, handwritten statement, reproduced in *Larry Bell* (Rome: Marlborough Galleria d'Arte, 1974), unpaginated (fourth and fifth pages); and Bell, city plan with handwritten statement, *Projets pour la Défense*, eighth and ninth pages.

<sup>&</sup>lt;sup>439</sup> Bell, handwritten statement, fifth page.

communicate perceptual experience of his art with words. In Bell's opinion, such translations obscure new sensory phenomena and in so doing mislead viewers. "If I take the position of explaining or clarifying the generalities of what you see when you confront my work, it would be a disservice to both the reader and myself," he submitted. "I cannot explain the energy that is created by your eye contact with these words, or the light reflecting off this paper. To me the joy of the specifics of the work has to do with this non-verbal energy and information transference."

In a sense it seems absurd to search for words when the art sits right there, available to be perceived. One ends up cornered, converting real phenomena into vague constructions such as "non-verbal energy," "information transference," and, as Bell put it, other "abstract symbols." One risks losing much when language structures experience of art. Perceiving the uncommon phenomena art offers, however, yields discovery.

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<sup>&</sup>lt;sup>440</sup> Ibid.

<sup>&</sup>lt;sup>441</sup> Carrying his claims through to their implied end, Bell even cast doubt on his statements casting doubt. "Since these words are only abstract symbols they may or may not be relevant," he warned. See Bell, handwritten statement, fifth page.

## **CONCLUSION**

As an analytical account grounded in the perceptual experience of artworks and in archival research of the claims artists made for their creations, this dissertation is centered around the themes of re-sensitizing one's body and perceptual faculties, the process of empirical learning, and the ultimate inability of language to describe sensory phenomena adequately. In a sense, I have tried to analyze works of art from the position of the artist. The central goal has been to restore the role of heightened sensory engagement and perceptual discovery, experiences that I view as fundamental to one's encounter with some of the art made during the 1960s and 1970s.

This research demanded an exacting account of how artworks look in person and over time, that is to say, from all angles, under various kinds of light, even at different times of the day, during each of the seasons, and under assorted skies and weather conditions. This degree of visual attention seems obsessive and outlandish if we accept most accounts of postwar art as offering a reasonable norm. However, I argue that a kind of visual hypersensitivity is validated, even necessitated, by the ways in which artists themselves describe the process of scrutinizing their own works.

Throughout this project, I have resisted any notion of relying on the visual experience or verbal descriptions offered in prior critical and historical accounts. Instead, I spent as much time as possible with the art and tried to build up my own empirical foundations. After establishing this knowledge to some extent, I then sought to investigate a topic that I would characterize as a step removed from my own sensory experience, namely, the artists' claims for their works as expressed in primary documentation and firsthand statements that often remain unexamined, dismissed, or misinterpreted in existing scholarship. From here, I took another step outward and considered a limited number of contemporaneous critical responses, such as Judd's writing about Albers' paintings and Flavin's objects, and Lippard's and Smithson's responses to Chamberlain's work. Also, I examined the art-historical accounts of Fry, Arnheim, and Gombrich, as well as arguments from the philosophy and psychology of perception put forward by Berkeley, Gestalt theorists, Peirce, and Merleau-Ponty.

In focusing on four artists over the course of this research, I have accepted the practical limitations of my methodology. I could only complete the intensive observation and meticulous description I was seeking by exploring a small number of case studies. The risk, of course, is implying that Judd, Chamberlain, Irwin, and Bell constitute a new category along the lines of "High Perceptualists"

(to adapt a chapter heading from James Meyer's 2000 book *Minimalism.*)<sup>442</sup> This was not my intention and, in fact, contrary to it. Rather, I am interested in the new discoveries we make about familiar artworks when we consider their illusions and nearly indiscernible phenomena to be as ontologically real as what we normally see and touch. Paying attention to the illusions in Chamberlain's lacquer paintings, for example, invites new ways of seeing and thinking about the color effects one notices when viewing his sculptures. The fascinating variability of the metallic paints in Frank Stella's pieces escapes the stasis implied by Michael Fried's reading of "deductive structure" in the works. <sup>443</sup> Jo Baer's and Larry Poons' paintings, and Craig Kauffman's and John McCracken's sculptures, begin to emerge from the periphery of historical accounts of the avant-garde in the 1960s and 1970s.

My research on the topic of visual phenomena and heightened perception makes four contributions to the existing scholarship on mid-twentieth-century American art. First, I have reconstructed the complicated relationship between various theories of perception advanced during the first half of the twentieth century—including contributions from perceptual psychology, philosophy, and art

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<sup>&</sup>lt;sup>442</sup> James Meyer, ed., *Minimalism* (London: Phaidon Press Limited, 2000), 74.

<sup>&</sup>lt;sup>443</sup> See Michael Fried, "Shape as Form: Frank Stella's New Paintings," *Artforum* 5 (November 1966): 18–27; and Michael Fried, *Three American Painters: Kenneth Noland, Jules Olitski, and Frank Stella* (Cambridge, Mass.: Fogg Art Museum, 1965). Compare Judd's account, as discussed in the "Introduction" of Chapter 2 above.

history—in order to understand the intellectual foundations of these artists' investigations, as well as to inform my own analysis of their art. Second, in trying to preserve a sense of the variety of postwar avant-garde art, I have differentiated the works and practices of four artists in great detail while also offering some broader similarities encompassing their pieces and those by other artists as well. Third, and most significantly, I have assessed the role of heightened perception in some art of the 1960s and 1970s by examining artists', critics', and my own visual experience of representative works. And finally, in its broadest ramifications, this dissertation demonstrates the discoveries possible when an analysis of art employs a methodological model based first and foremost on the visual, spatial, physiological, and otherwise experiential effects of the works under consideration.

Judd, Chamberlain, Irwin, Bell, and other American artists working in the 1960s and 1970s made striking discoveries about visual phenomena and perception through their paintings, sculptures, and spaces fabricated during this time. The benefit of developing the heightened perceptual sensitivity that these and other artists investigated is the chance to see what had always remained below one's perceptual threshold, to make discoveries and to compile new knowledge. By making works that bring about peculiar sensations, these artists revealed the potential of extending human vision beyond its traditionally

understood limits. Viewers, including the artists themselves, had to recalibrate their visual sensitivity and engage pieces with a newly acute mode of seeing in order to register such phenomena. From the glimmering corners of Judd's aluminum boxes to the glinting lacquer of Chamberlain's paintings, from the illusory halations in front of Irwin's discs to the coalescence of physical and reflected space in Bell's cubes, an unusually intense mode of observation allows a viewer to discover and to comprehend strange new phenomena.

This dissertation evaluates actual artworks in order to learn precisely what fresh visual phenomena one can see and what exactly one learns from such data. Too often, scholarly accounts of mid-twentieth-century American art fail to convey the necessity of close sensory scrutiny, of extended observation, and of repeatedly checking intellectual conclusions against experiential evidence. Such writers allow readers to remain readers instead of challenging them to become—or to imagine themselves to be—viewers. I have tried to do the opposite here by insisting that language abide by the sensory experience of art. Seeing and otherwise perceiving artworks in person (as opposed to printed reproductions and brief summaries) is crucial to such analysis and, wherever possible, I have included extensive description of and meditation upon the uncommon visual phenomena one discerns when looking so closely. In addition, I have paid particular attention to my own and others' translations of art into words, and

words into other words. Both actions increase the distance from the original sensation, altering the real visual phenomena and the actual perceptual experience.

Throughout this study, I have tried to underscore perceptual discoveries and new knowledge. These constitute the reward that Judd, Chamberlain, Irwin, and Bell conceived for the considerable effort involved in experiencing art and other objects, spaces, and situations in the world with much greater intensity and care than we normally do. By observing in such a manner, we give ourselves the chance to discern strange visual phenomena, to reexamine what we think we know, and ultimately to learn more with the same old senses. This project has begun the process of restoring the role of visual phenomena and perceptual inquiry to the analysis of American art of the 1960s and 1970s.

## **Reproductions for Chapter 1:**

"Twentieth-Century Theories of Perception and Perceptual Phenomena"



Figure 1.1; Michelangelo Merisi da Caravaggio; *The Supper at Emmaus*; 1601; oil on canvas;  $55\frac{1}{2} \times 77\frac{1}{4}$  in.

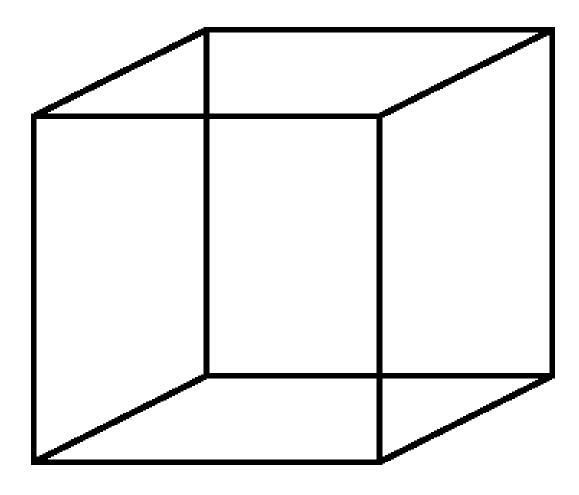


Figure 1.2; the "Necker Cube" optical illusion, first published in 1832 by Swiss crystallographer Louis Albert Necker.

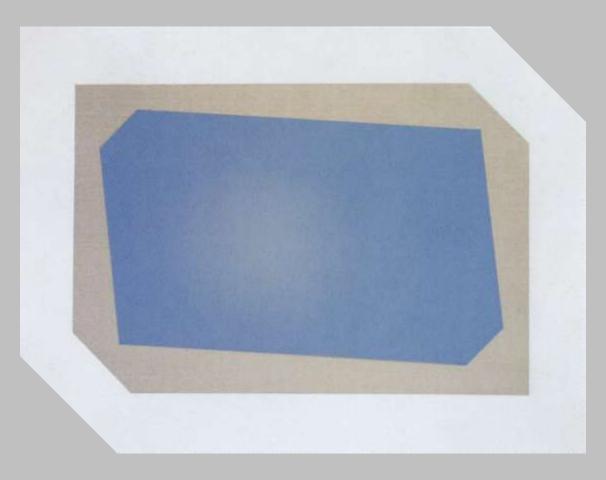


Figure 1.3; Larry Bell; Lux at the Merritt Jones; 1962; acrylic on canvas; 66 x 90 in.

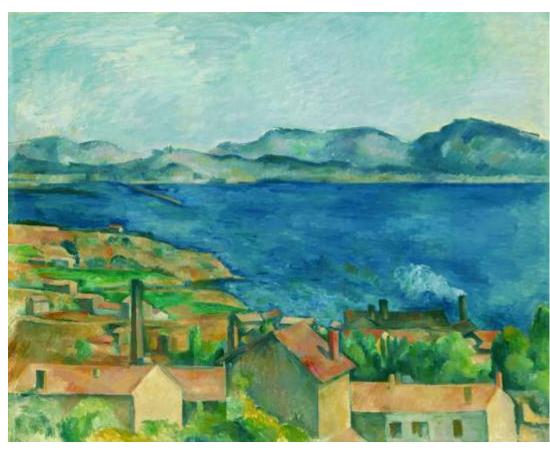


Figure 1.4; Paul Cézanne; *The Bay of Marseilles, View from L'Estaque*; 1885; oil on canvas; 31½ x 39¼ in.



Figure 1.5; Pablo Picasso; *Portrait of Ambroise Vollard*; 1910; oil on canvas;  $36\frac{1}{4} \times 25\frac{3}{4}$  in.



Figure 1.6; Ron Davis; *Spoke*; 1968; polyester resin and fiberglass;  $56\frac{3}{4}$  x  $135\frac{3}{4}$  x  $2\frac{1}{4}$  in.

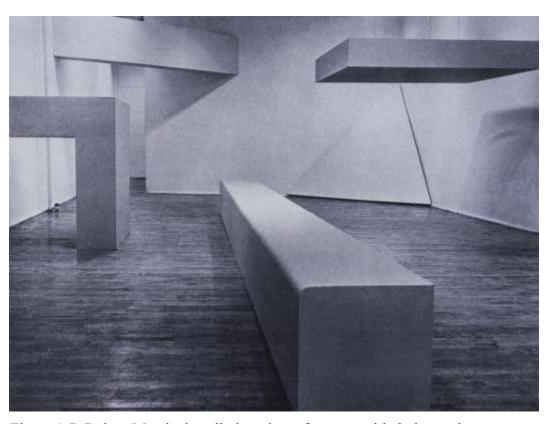


Figure 1.7; Robert Morris; installation view of seven untitled plywood structures; Green Gallery, New York; 1964.



Figure 1.8; Claes Oldenburg; *Bedroom Ensemble*; 1963; vinyl, fake fur, metal, wood; 10 x 17 x 21 ft.

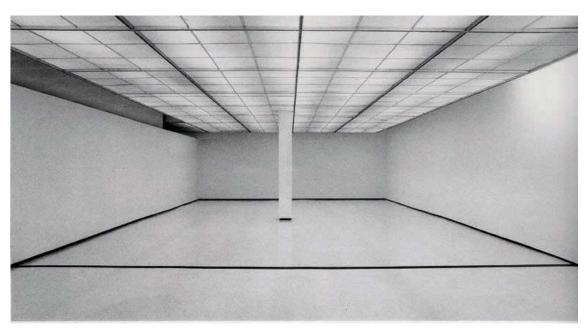


Figure 1.9; Robert Irwin; black line volume, installation at the Museum of Contemporary Art, Chicago; 1975–76; black tape.



Figure 1.10; Carl Andre; *Steel-Magnesium Plain*; 1969; steel, magnesium; 36-unit square, each tile  $^{3}/_{8}$  x 12 x 12 in., overall  $^{3}/_{8}$  x 72 x 72 in.



Figure 1.11; Donald Judd; untitled (DSS 179); 1969; clear anodized aluminum and purple Plexiglas; 33 x 68 x 48 in.



Figure 1.12; Donald Judd; untitled (DSS 271); 1972; copper and light cadmium red enamel on aluminum; 36 x 61½ x 70¼ in.



Figure 1.13; Larry Bell; *Larry Bell's House, Part II*; 1962–63; wood, mirror, epoxy paint; 25 x 25 x 25 in.

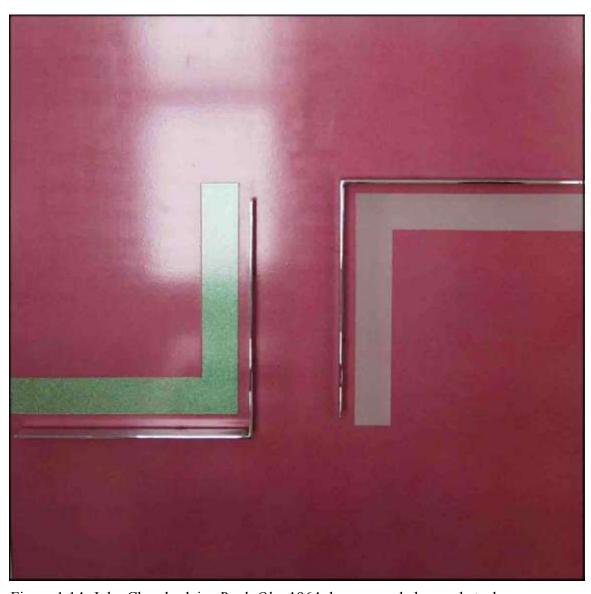


Figure 1.14; John Chamberlain; *Rock-Ola*; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 1.15; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.

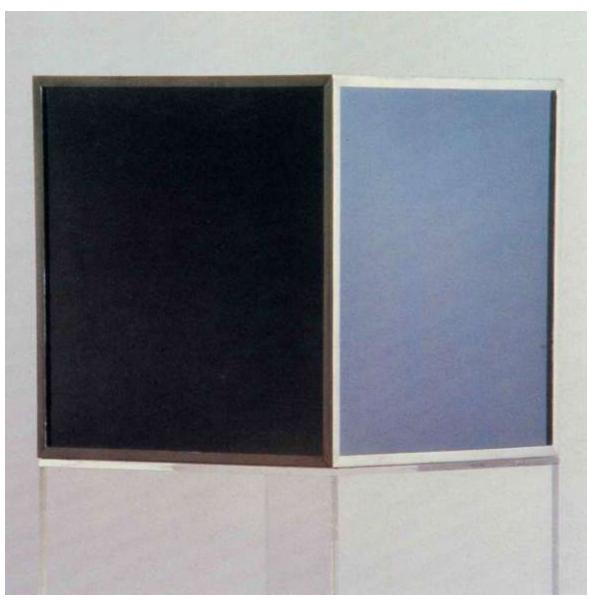


Figure 1.16; Larry Bell; untitled; 1966; vacuum-coated glass, chromium-plated brass;  $12\frac{1}{4} \times 12\frac{1}{4} \times 12\frac{1}{4}$  in.



Figure 1.17; Eva Hesse; *Contingent*; 1969; cheesecloth, latex, fiberglass in eight panels; dimensions variable.



Figure 1.18; Lynda Benglis; *Bounce*; 1969; poured colored latex; dimensions variable.



Figure 1.19; Richard Serra; *Clara-Clara*; 1983; two Cor-Ten steel curves; each 12 ft. x 108 ft. x 2 in.

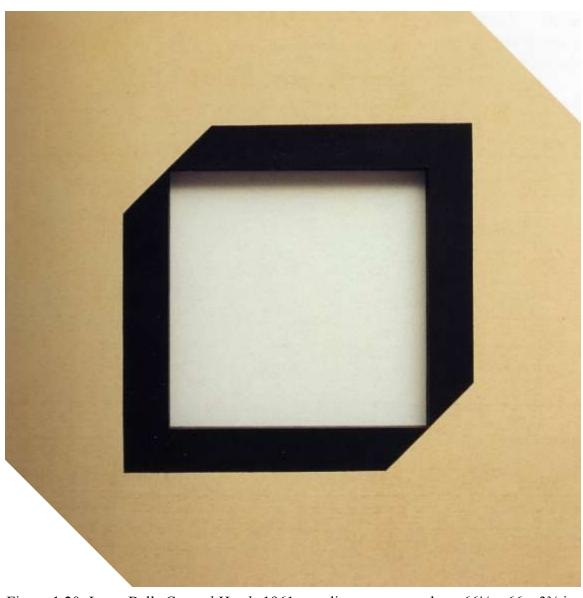


Figure 1.20; Larry Bell; Conrad Hawk; 1961; acrylic on canvas, glass;  $66\frac{1}{4}$  x 66 x  $3\frac{3}{4}$  in.

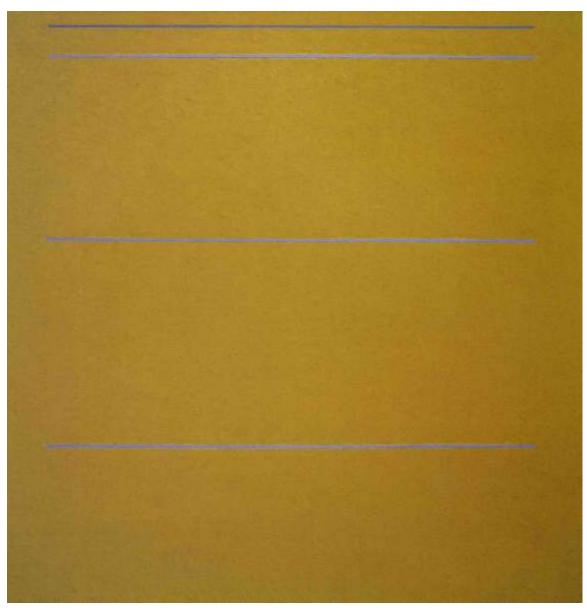


Figure 1.21; Robert Irwin Crazy Otto; 1962; oil on canvas; 66 x 65 in.



Figure 1.22; Robert Irwin; untitled; 1963–64; oil on canvas;  $82\frac{1}{2}$  x  $84\frac{1}{2}$  in.



Figure 1.23; Leonardo da Vinci; *Virgin and Child with Saint Anne and John the Baptist*; c. 1499–1500; black chalk with white chalk on paper, mounted on canvas; 55<sup>3</sup>/<sub>4</sub> x 41<sup>1</sup>/<sub>4</sub> in.

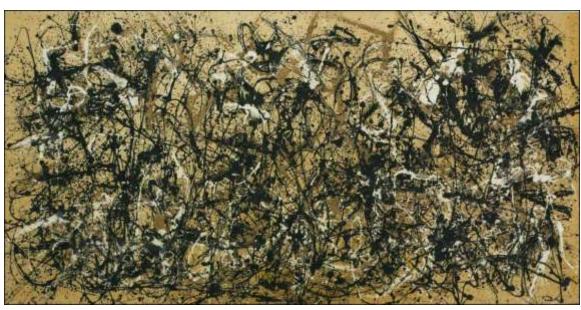


Figure 1.24; Jackson Pollock; *Autumn Rhythm: Number 30, 1950*; 1950; oil on canvas; 105 x 207 in.

**Reproductions for Chapter 2:** 

"Donald Judd on Optical Phenomena"



Figure 2.1; Donald Judd; "Specific Objects"; Arts Yearbook, 1965.



Figure 2.2; Donald Judd; "Local History"; Arts Yearbook, 1964.



Figure 2.3; Alfred Jensen; *Uaxactun*; 1964; oil on canvas; 50<sup>1</sup>/<sub>4</sub> x 50<sup>1</sup>/<sub>4</sub> in.



Figure 2.4; Nina Kogan; Suprematist Composition; 1923; aquarelle on paper; 9 x 71/4 in.

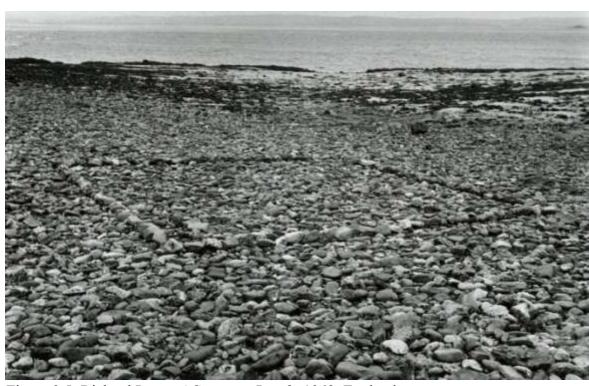


Figure 2.5; Richard Long; A Somerset Beach; 1968; England.



Figure 2.6; John Wesley; Coat of Arms; 1962; Duco on canvas; 48 x 48 in.



Figure 2.7; Frank Stella; *Marquis de Portago* (first version); 1960; aluminum paint on canvas; 93 x 71<sup>1</sup>/<sub>4</sub> in.

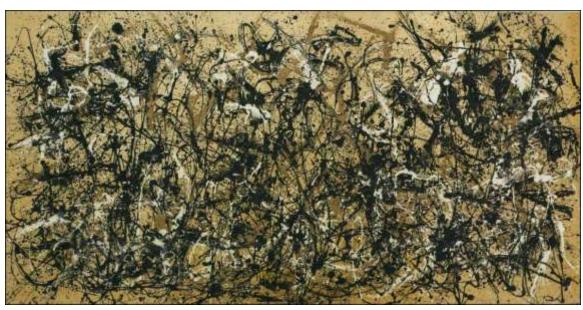


Figure 2.8; Jackson Pollock; *Autumn Rhythm: Number 30, 1950*; 1950; oil on canvas; 105 x 207 in.



Figure 2.9; John Chamberlain; *Hidden Face*; 1962; painted and chromed steel; 41 x 50 x 33½ in.



Figure 2.10; John Chamberlain; *Velvet White*; 1962; painted and chromium-plated steel; 80<sup>3</sup>/<sub>4</sub> x 53 x 49<sup>1</sup>/<sub>4</sub> in.



Figure 2.11; Lee Bontecou; untitled; 1960; welded steel and canvas;  $72 \times 72 \times 18$  in.



Figure 2.12; Claes Oldenburg; *Soft Washstand*; 1966; vinyl filled with kapok on metal stand painted with acrylic; 55 x 36 x 28 in.



Figure 2.13; Roy Lichtenstein; *Tire*; 1962; oil on canvas; 68 x 56 in.

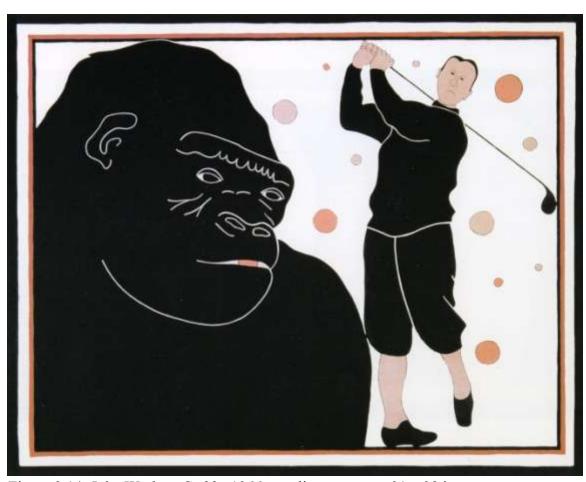


Figure 2.14; John Wesley; *Caddy*; 1966; acrylic on canvas; 31 x 38 in.



Figure 2.15; James Rosenquist; *I Love You with My Ford*; 1961; oil on canvas;  $82\frac{3}{4} \times 93\frac{1}{2}$  in.



Figure 2.16; George Segal; *The Diner*; 1964–66; plaster, wood, chrome, laminated plastic, Masonite, fluorescent light; 93<sup>3</sup>/<sub>4</sub> x 144<sup>1</sup>/<sub>4</sub> x 96 in.

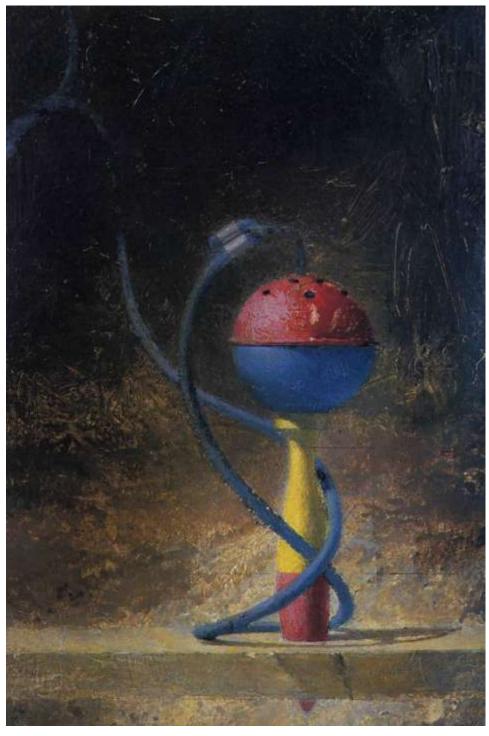


Figure 2.17; Walter Murch; *Dancer*; 1957; oil on canvas; 191/4 x 131/4 in.

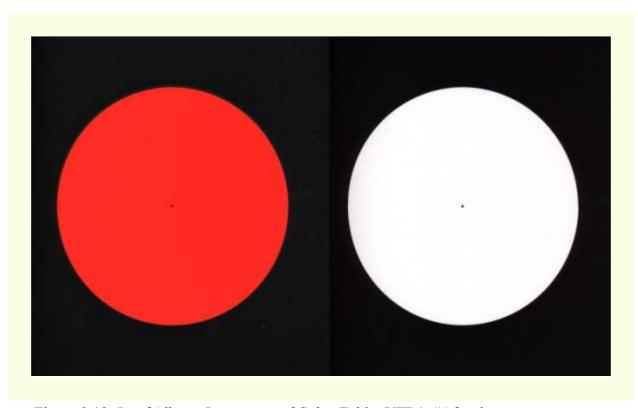


Figure 2.18; Josef Albers; *Interaction of Color,* Folder VIII-1, "After-images"; Yale University Press, 1963; 13 x 20 in.



Figure 2.19; Josef Albers; *Homage to the Square: Awakening*; 1963; oil on fiberboard; 24 x 24 in.

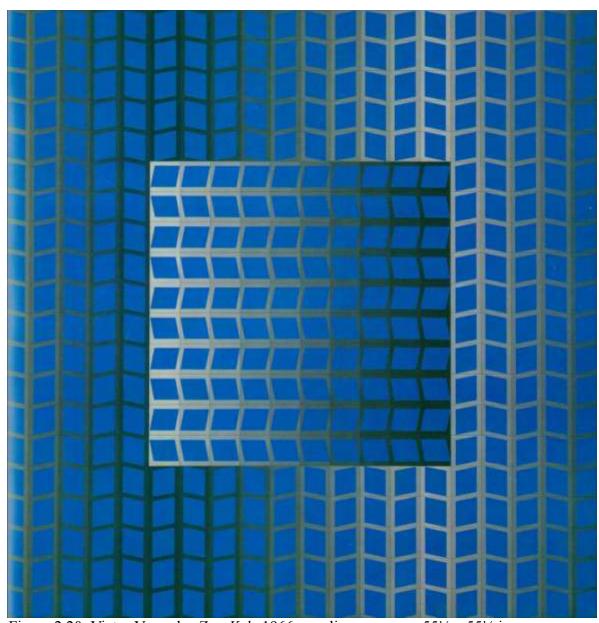


Figure 2.20; Victor Vasarely; Zett-Kek; 1966; acrylic on canvas; 551/4 x 551/4 in.

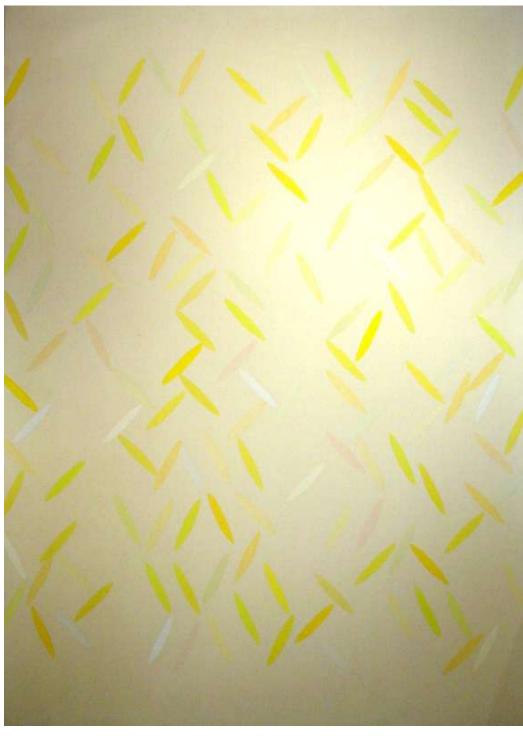


Figure 2.21; Larry Poons; untitled; 1968; acrylic on canvas; 1251/4 in. x 893/4 in.



Figure 2.22; Karl Gerstner; *Lens Picture No. 15*; 1964 Plexiglas lens mounted on painted Formica; 28¼ in. x 281¼ in. x 7¼ in.

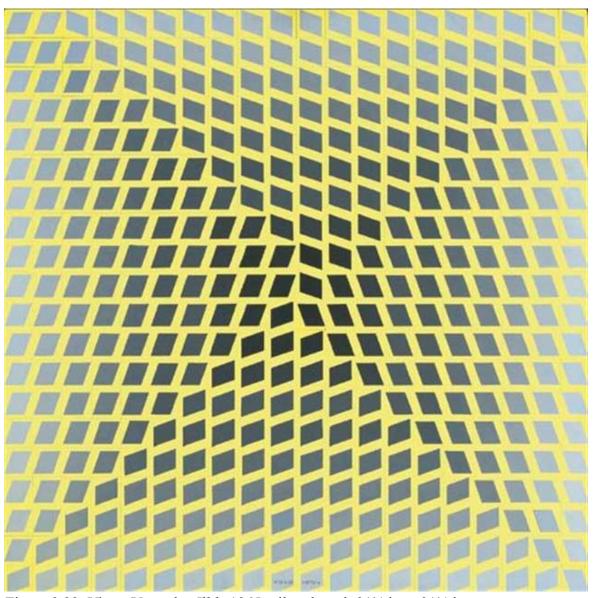


Figure 2.23; Victor Vasarely; *Illik*; 1965; oil on board; 31½ in. x 31½ in.



Figure 2.24; Kenneth Noland; Round; 1959; acrylic on canvas; 92 x 92 in.



Figure 2.25; Kenneth Noland; Gift; 1962; acrylic on canvas; 72 x 72 in.



Figure 2.26; Karl Gerstner; *Lens Picture No. 15*; 1964 Plexiglas lens mounted on painted Formica; 28¼ in. x 28¾ in. x 7¼ in.

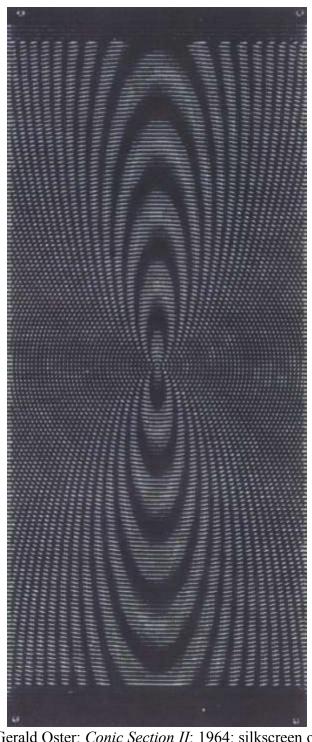


Figure 2.27; Gerald Oster; Conic Section II; 1964; silkscreen on Plexiglas; 24 x 10 x 31/4 in.

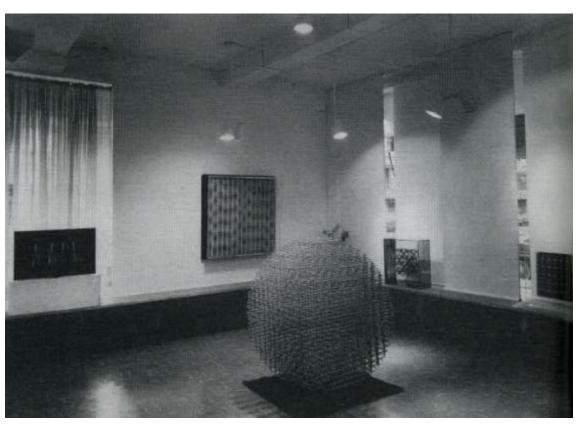


Figure 2.28; Exhibition view of works by Groupe de Recherche d'Art Visuel (GRAV) at The Contemporaries, New York; November 11–December 15, 1962.

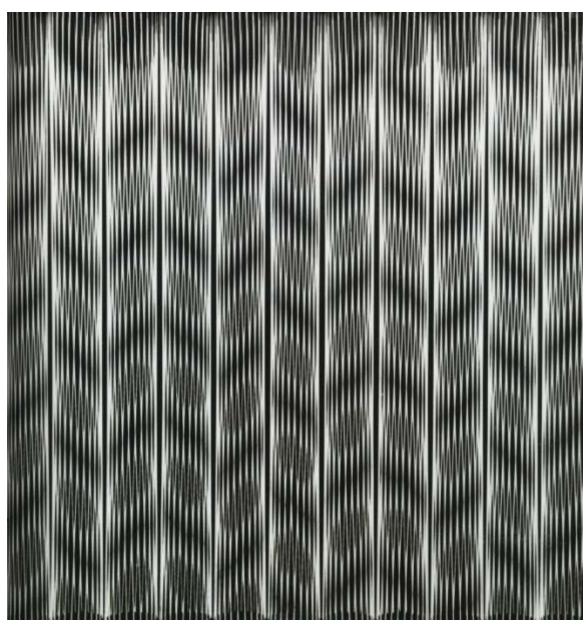


Figure 2.29; Yvaral [Jean-Pierre Vasarely]; *Cylindres en accélération*; 1961; wood, plastic, vinyl wires; 23¾ x 23¾ x 3¼ in.



Figure 2.30; Francisco Sobrino; *Structure permutationelle B. IV*; 1966; polished steel; 71<sup>3</sup>/<sub>4</sub> x 22 x 22 in.



Figure 2.31; Gerald Oster; *Sine and Rotated Sine*; 1964; silkscreen on Plexiglas; 36 x 36 in.

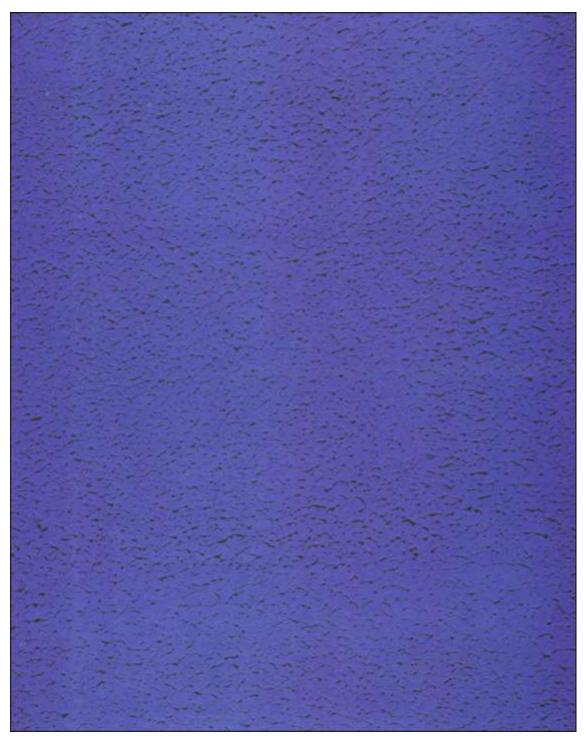


Figure 2.32; Yves Klein; *Untitled Blue Monochrome (IKB)*; 1959; dry pigment in synthetic resin on paper;  $8\frac{1}{2} \times 7\frac{1}{4}$  in.

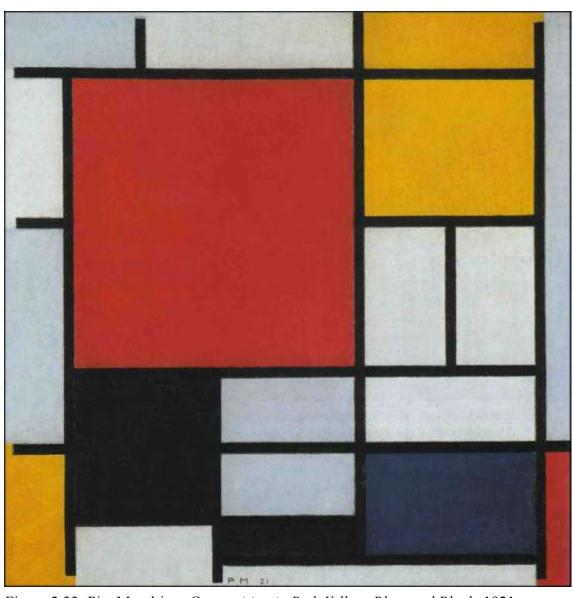


Figure 2.33; Piet Mondrian; *Composition in Red, Yellow, Blue, and Black*; 1921; oil on canvas; 23½ x 23½ in.



Figure 2.34; Dan Flavin; digitally altered image of *daylight and cool white (to Sol LeWitt)*; 1964; "Daylight" [inside pair] and "Cool white" [outside pair] fluorescent lights; 96 x 10 in.



Figure 2.35; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.

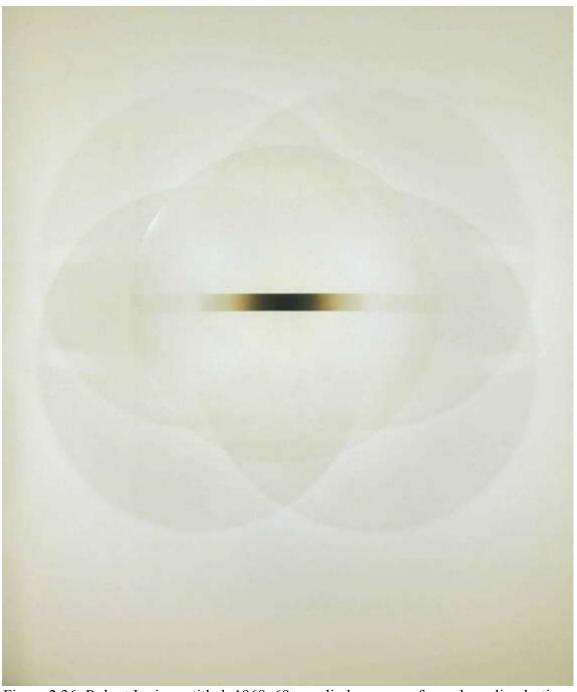


Figure 2.36; Robert Irwin; untitled; 1968–69; acrylic lacquer on formed acrylic plastic; 54 in. diameter.

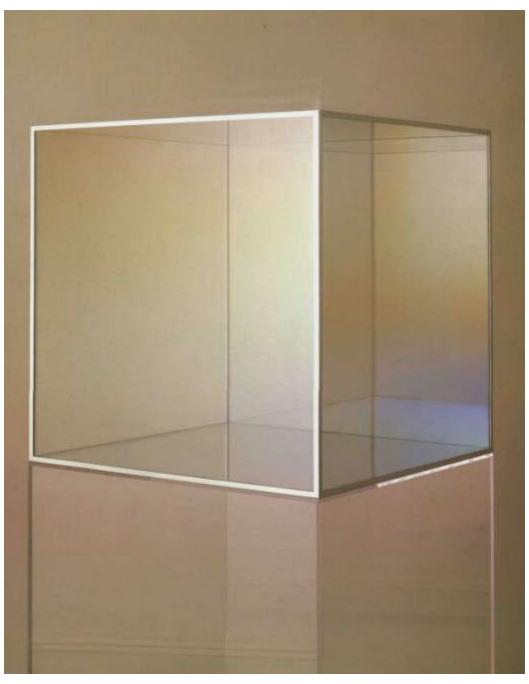


Figure 2.37; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.



Figure 2.38; Robert Irwin; untitled; 1966–67; acrylic lacquer on shaped aluminum disc; 60 in. diameter.



Figure 2.39; Donald Judd; 100 untitled works; 1982–86; mill aluminum; each 41 x  $51 \times 72$  in.; south artillery shed with 48 works, Chinati Foundation, Marfa, Texas.



Figure 2.40; Donald Judd; 100 untitled works; 1982–86; mill aluminum; each 41 x 51 x 72 in.; north artillery shed with 52 works, Chinati Foundation, Marfa, Texas.



Figure 2.41; Donald Judd; fifteen untitled works in concrete, at midday; 1980–84; each unit  $98\frac{1}{2} \times 98\frac{1}{2} \times 196\frac{3}{4}$  in.; The Chinati Foundation, Marfa, Texas.



Figure 2.42; Donald Judd; fifteen untitled works in concrete, at dusk; 1980–84; each unit  $98\frac{1}{2} \times 98\frac{1}{2} \times 196\frac{3}{4}$  in.; The Chinati Foundation, Marfa, Texas.

## **Reproductions for Chapter 3:**

"A Look at Phenomena in John Chamberlain's Lacquer Paintings"



Figure 3.1; John Chamberlain; *Essex*; 1960; painted and chromed steel; 108 x 80 x 43 in.

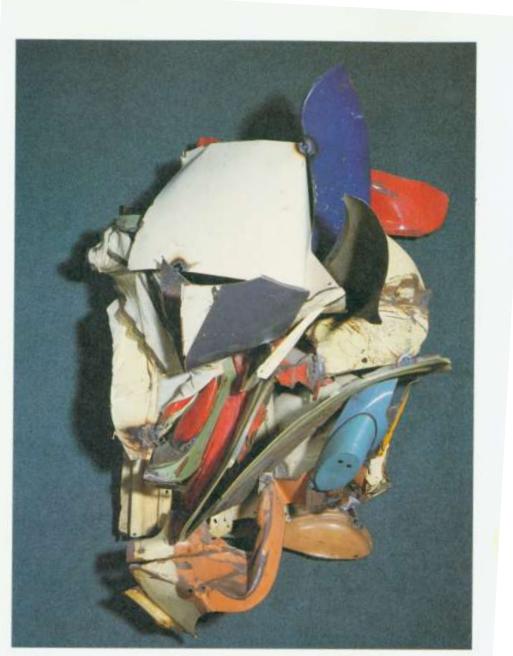


Figure 3.2; John Chamberlain; *Huzzy*; 1961; painted steel with fabric; 54 x 33 x 21 in.



Figure 3.3; John Chamberlain; *Dolores James*; 1962; painted steel; 79 x 97 x 39 in.



Figure 3.4; Willem de Kooning; *Untitled XIV*; 1976; oil on canvas; 70 x 80 in.



Figure 3.5; Franz Kline; untitled; 1957; oil on paper; 17 x 22 in.

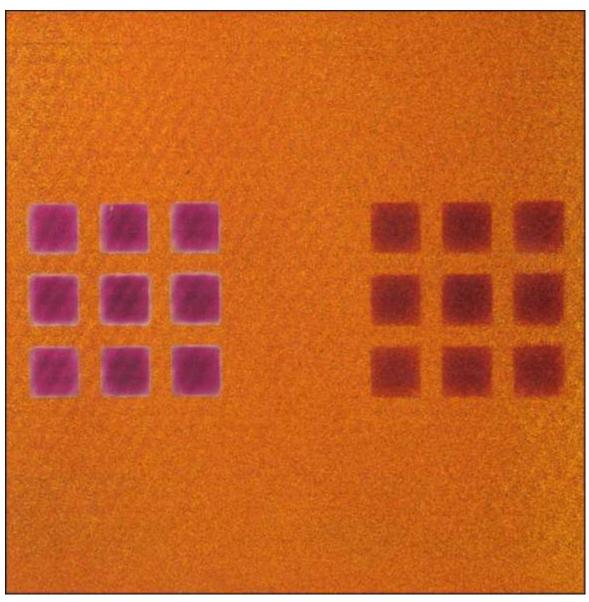


Figure 3.6; John Chamberlain; *Four Seasons*; 1964; lacquer on Formica; 12 x 12 in.

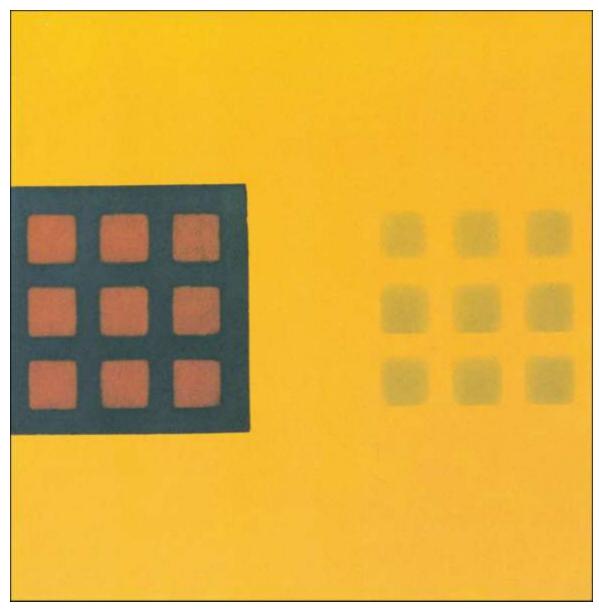


Figure 3.7; John Chamberlain; *Dee Dee Sharp*; 1963; lacquer on Formica; 12 x 12 in.

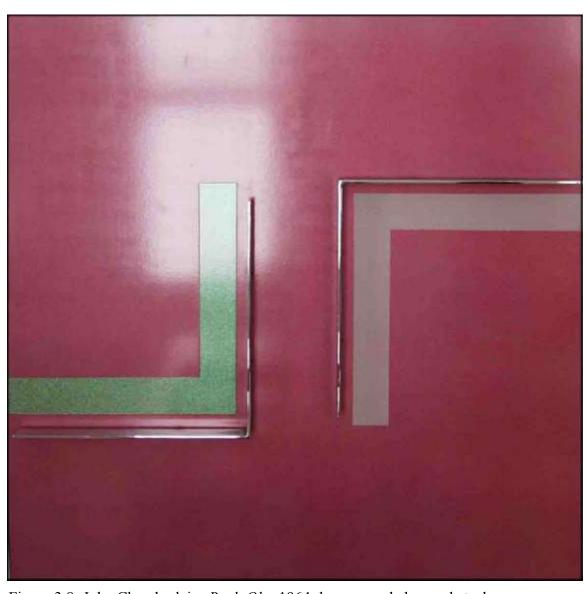


Figure 3.8; John Chamberlain; *Rock-Ola*; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.9; John Chamberlain; untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.

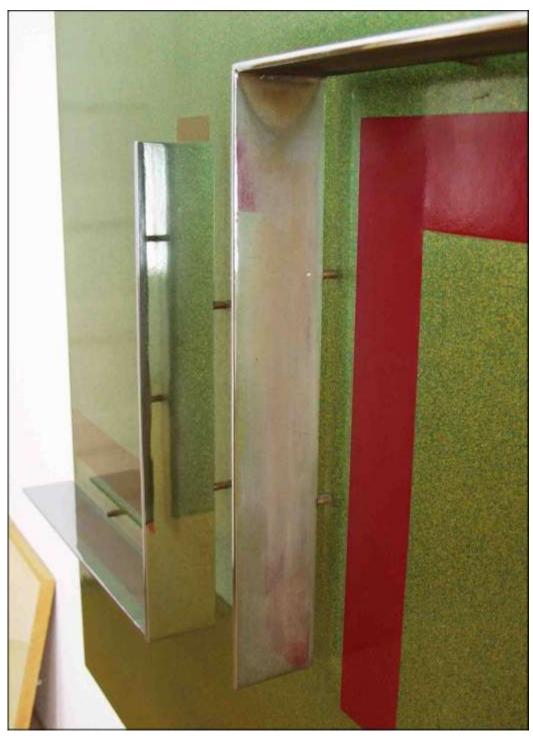


Figure 3.10; John Chamberlain; raking view of untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.11; John Chamberlain; digitally altered image of untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.12; John Chamberlain; digitally altered image of untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.13; John Chamberlain; *Hidden Face*; 1962; painted and chromed steel; 41 x 50 x 33½ in.



Figure 3.14; John Chamberlain; *Velvet White*; 1962; painted and chromium-plated steel; 80<sup>3</sup>/<sub>4</sub> x 53 x 49<sup>1</sup>/<sub>4</sub> in.



Figure 3.15; John Chamberlain; untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.

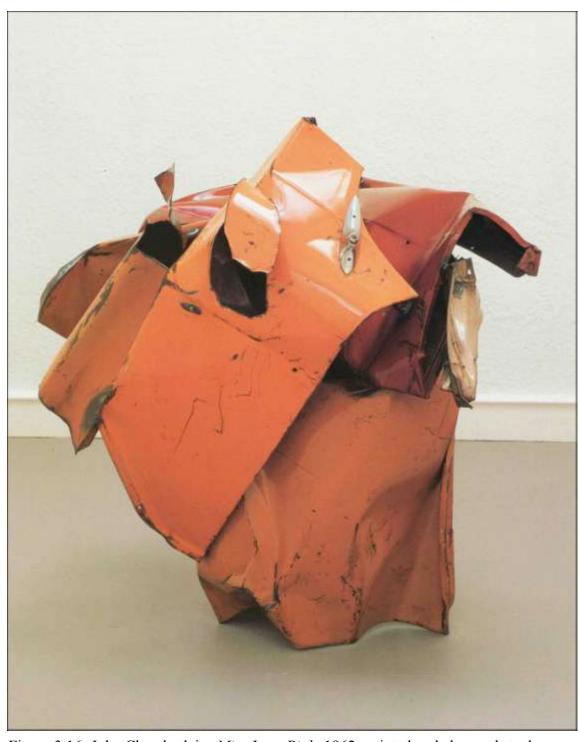


Figure 3.16; John Chamberlain; *Miss Lucy Pink*; 1962; painted and chromed steel; 47 x 42 x 39 in.

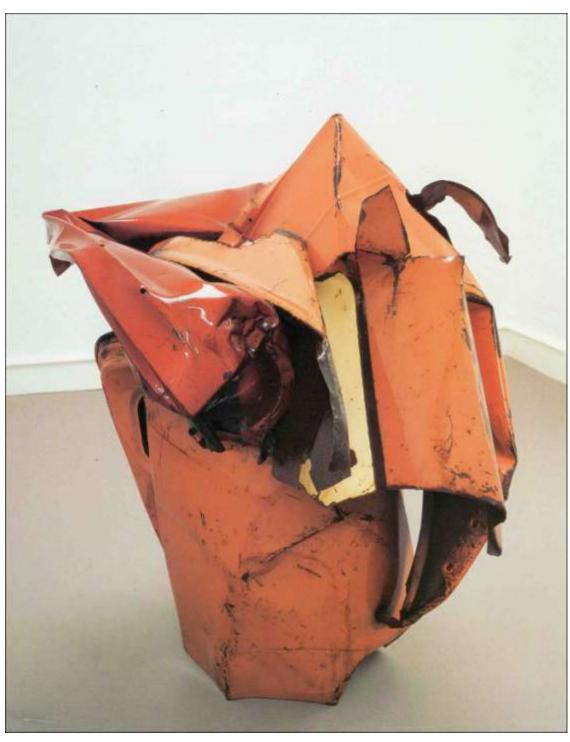


Figure 3.17; John Chamberlain; *Miss Lucy Pink*; 1962; painted and chromed steel; 47 x 42 x 39 in.

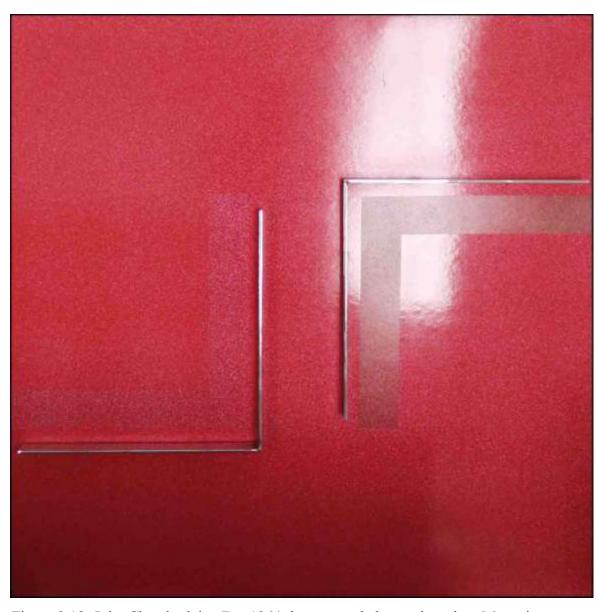


Figure 3.18; John Chamberlain; *Zia*; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.19; John Chamberlain; untitled; 1964; lacquer and chromed steel on Masonite; 48 x 48 in.



Figure 3.20; Willem de Kooning; untitled; 1962; oil on canvas; 80 x 70 in.

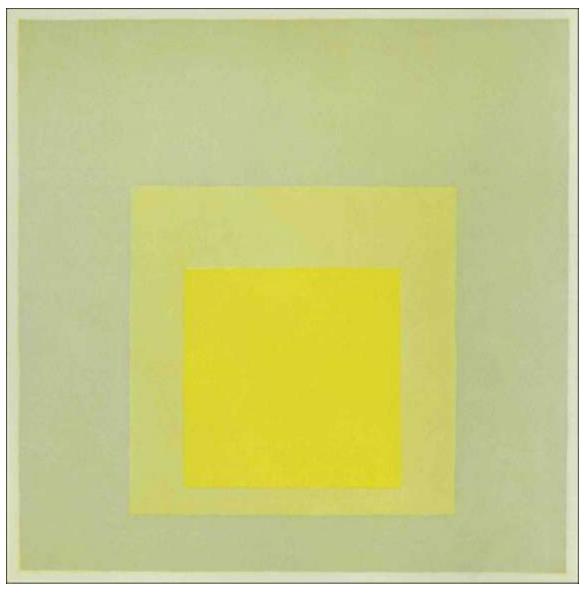


Figure 3.21; Josef Albers; *Homage to the Square: Awakening*; 1963; oil on fiberboard; 24 x 24 in.

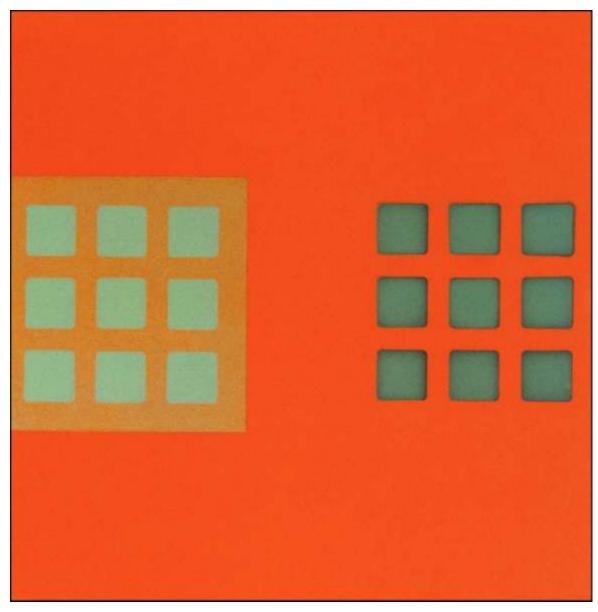


Figure 3.22; John Chamberlain; *Ray Charles*; 1964; lacquer on Formica; 12 x 12 in.

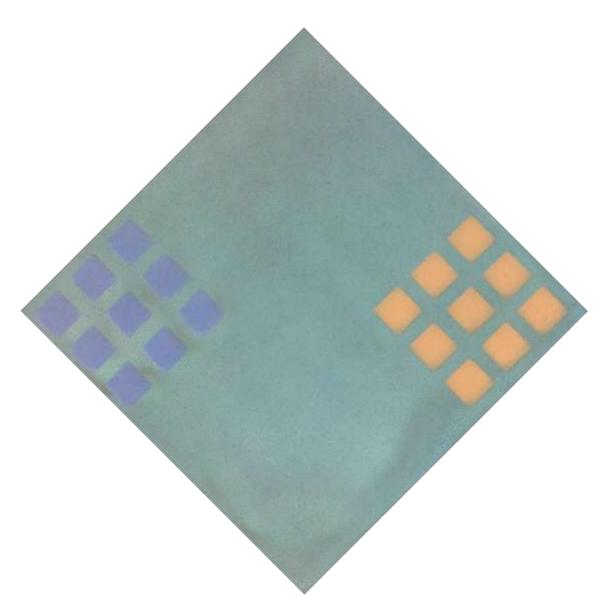


Figure 3.23; John Chamberlain; *The Rain Drops*; 1965; lacquer on Formica; 12 x 12 in.

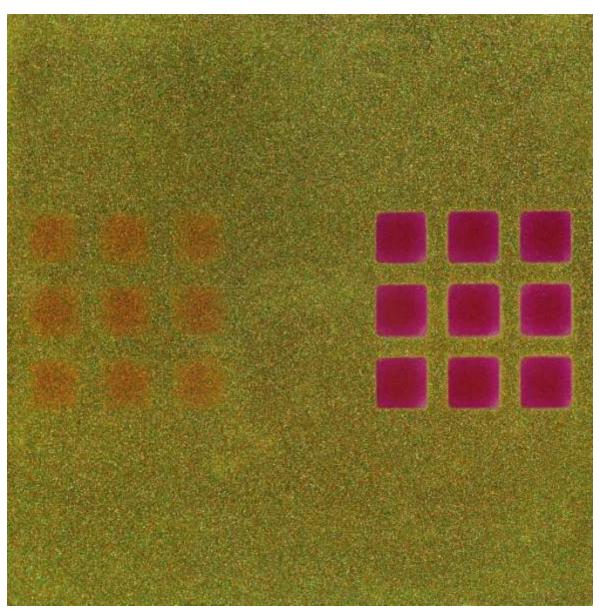


Figure 3.24; John Chamberlain; *Miracles*; 1963; lacquer on Formica; 12 x 12 in.



Figure 3.25; Georges Seurat; *Alfalfa Fields, Saint Denis*; 1885-86; oil on canvas;  $25\frac{1}{4} \times 31\frac{3}{4}$  in.

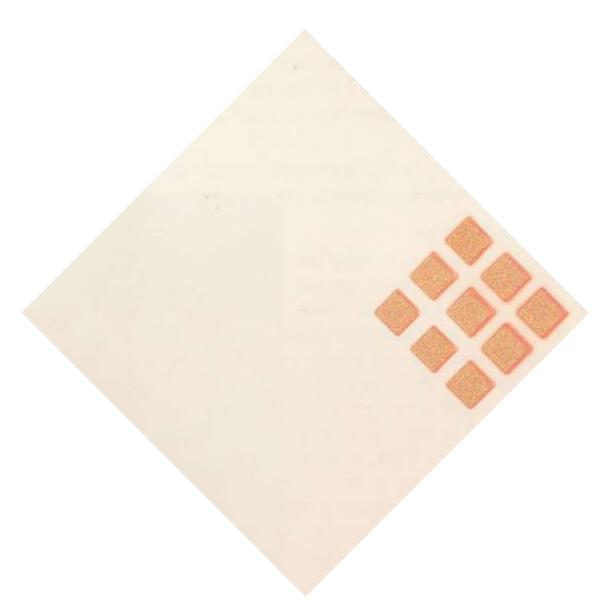


Figure 3.26; John Chamberlain; *Righteous Brothers*; 1965; lacquer on Formica; 12 x 12 in.

**Reproductions for Chapter 4:** 

"To See Like Robert Irwin"

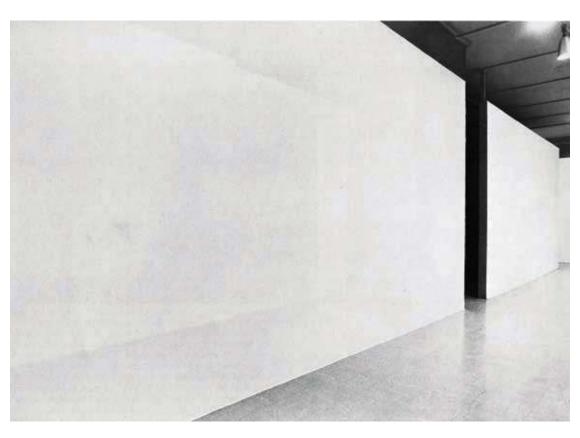


Figure 4.1; Robert Irwin; untitled installation at the Philadelphia College of Art; 1976; voile tergal (synthetic scrim) and light; 12 x 80 ft.



Figure 4.2; Robert Irwin; untitled; 1963–64; oil on canvas;  $82\frac{1}{2}$  x  $84\frac{1}{2}$  in.

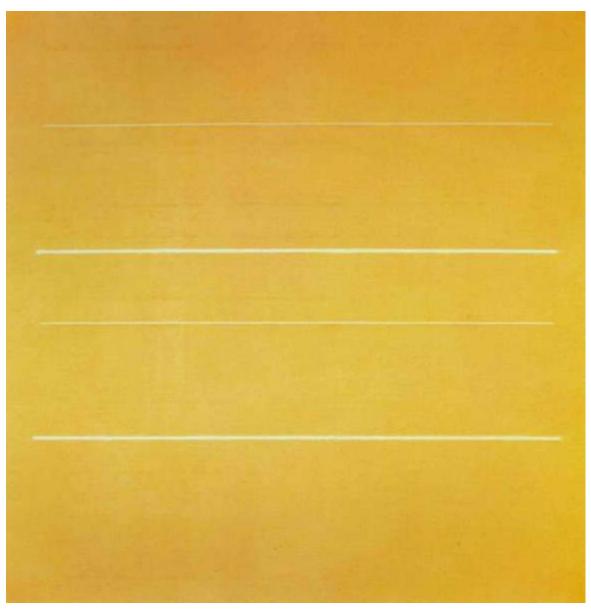


Figure 4.3; Robert Irwin; *The Four Blues*; 1961; oil on canvas; 65½ x 65¼ in.

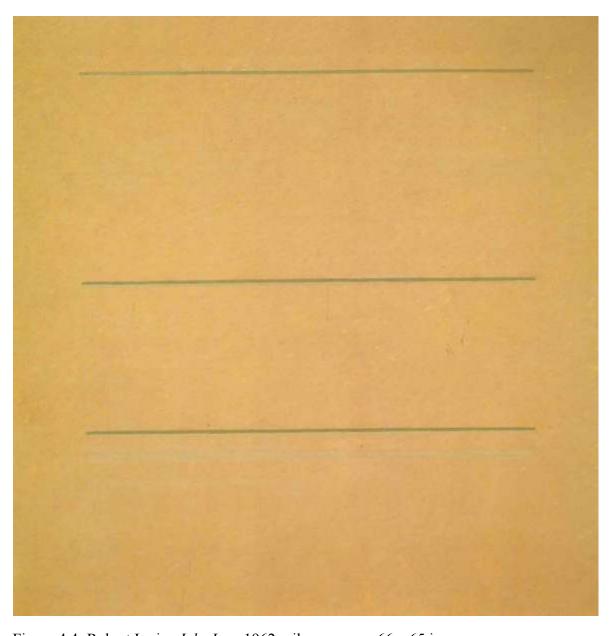


Figure 4.4; Robert Irwin; Jake Leg; 1962; oil on canvas; 66 x 65 in.

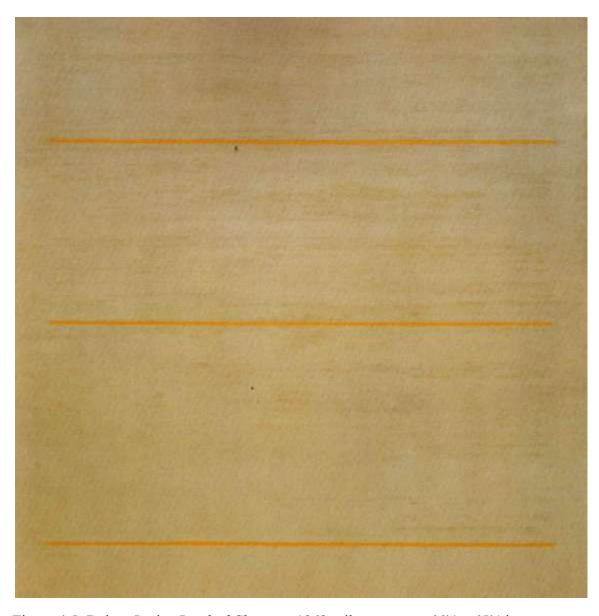


Figure 4.5; Robert Irwin; *Bowl of Cherries*; 1962; oil on canvas;  $66\frac{1}{4} \times 65\frac{1}{4}$  in.

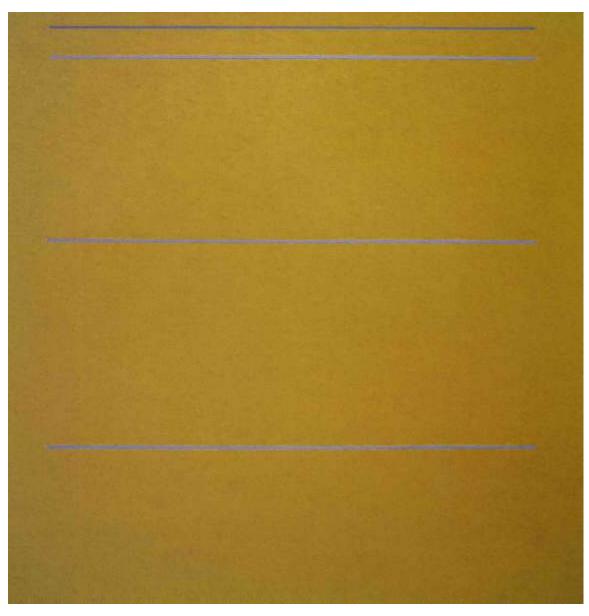


Figure 4.6; Robert Irwin Crazy Otto; 1962; oil on canvas; 66 x 65 in.



Figure 4.7; Jacques-Louis David; *The Coronation of Napoleon and Josephine*; 1805–07; oil on canvas; 240¼ x 366½ in.



Figure 4.8; Robert Irwin; untitled; 1964–66; oil on canvas on shaped wood veneer frame;  $82\frac{1}{2} \times 84\frac{1}{2}$  in.



Figure 4.9; Robert Irwin; detail of untitled; 1964–66; oil on canvas on shaped wood veneer frame; 82½ x 84½ in.



Figure 4.10; Robert Irwin; untitled; 1966–67; sprayed synthetic polymer paint on shaped aluminum disc and arm; 60 in. diameter.

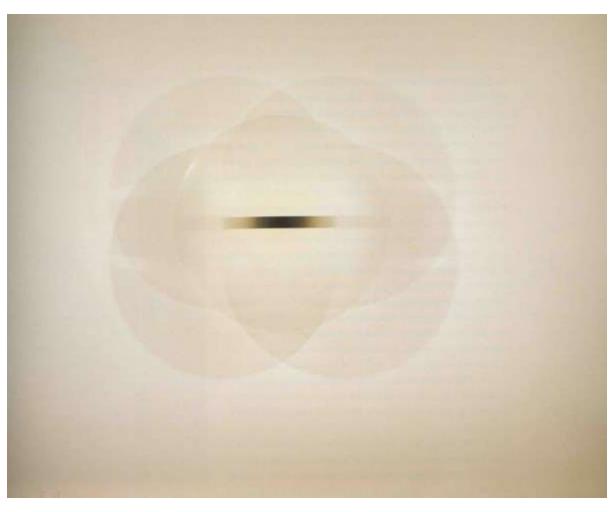


Figure 4.11; Robert Irwin; untitled; 1968–69; sprayed acrylic lacquer on formed acrylic plastic; 54 in. diameter.

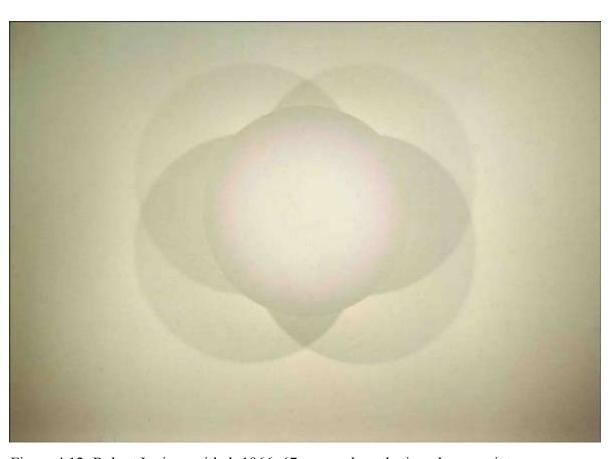


Figure 4.12; Robert Irwin; untitled; 1966–67; sprayed synthetic polymer paint on shaped aluminum disc and arm; 60 in. diameter.

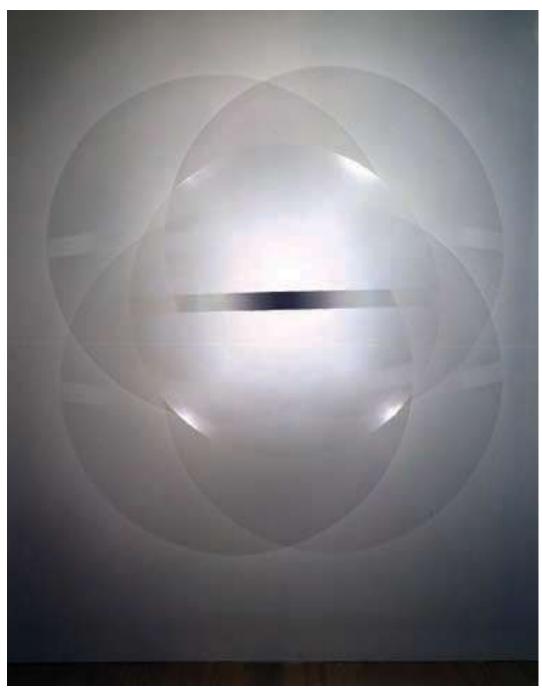


Figure 4.13; Robert Irwin; untitled; 1968–69; sprayed acrylic lacquer on formed acrylic plastic; 54 in. diameter.

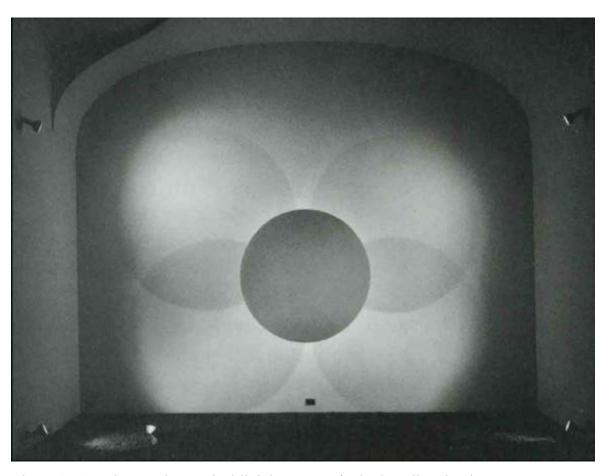


Figure 4.14; Robert Irwin's typical lighting set-up for both earlier aluminum (as here) and later acrylic disc paintings, consisting of four 150-watt floods, two above and two below, at the left and right about six feet out in front of the work.

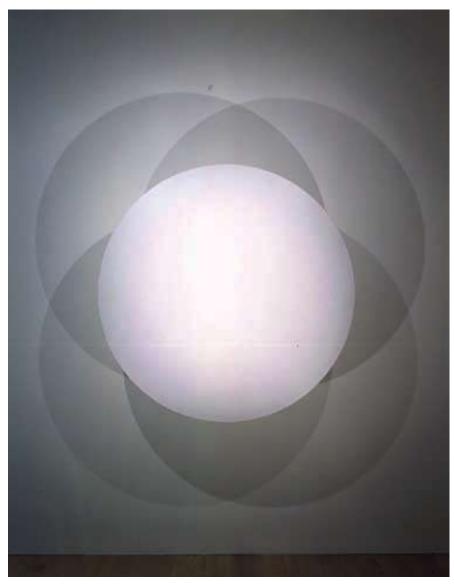


Figure 4.15; Robert Irwin; untitled; 1966–67; sprayed acrylic lacquer on shaped aluminum disc; 60 in. diameter.

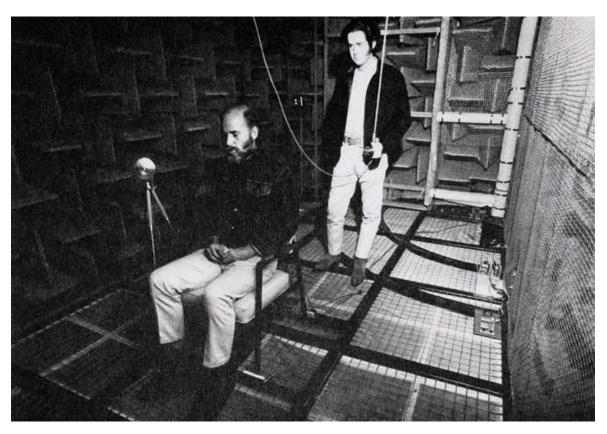


Figure 4.16; Robert Irwin and James Turrell in UCLA's anechoic chamber, 1969.

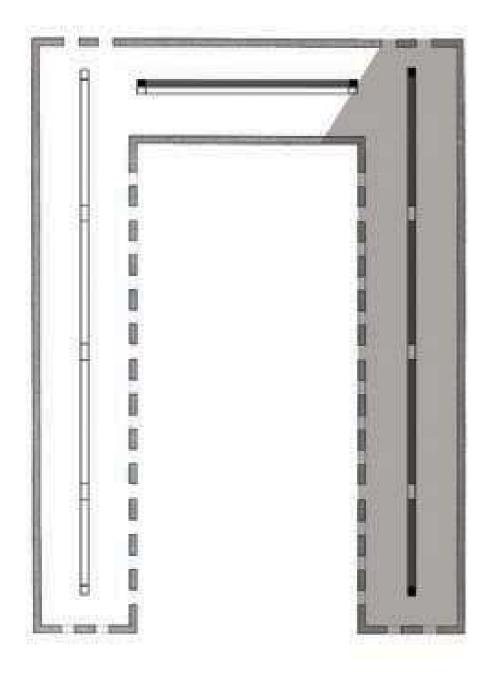


Figure 4.17; Robert Irwin; schematic plan of untitled (four walls), installation at the Chinati Foundation, Marfa, Texas; 2006; voile tergal (synthetic scrim), wood, metal, tape, window-tinting film, light construction and framing materials; each long scrim wall, 106 in. x 106 ft.; each short scrim wall, 106 in. x 37 ft. 2 in.



Figure 4.18; Robert Irwin; untitled (four walls), installation at the Chinati Foundation, Marfa, Texas; 2006; voile tergal (synthetic scrim), wood, metal, tape, window-tinting film, light construction and framing materials; each long scrim wall, 106 in. x 106 ft.; each short scrim wall, 106 in. x 37 ft. 2 in.



Figure 4.19; same as previous page.



Figure 4.20; same as previous page.

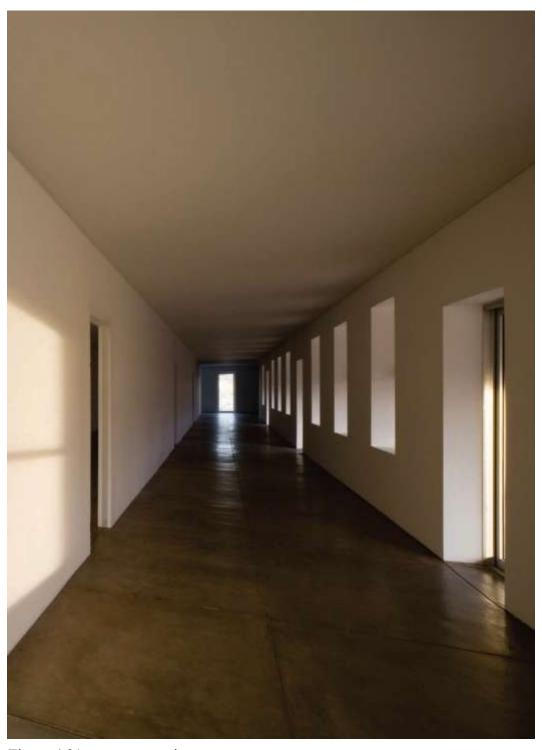


Figure 4.21; same as previous page.

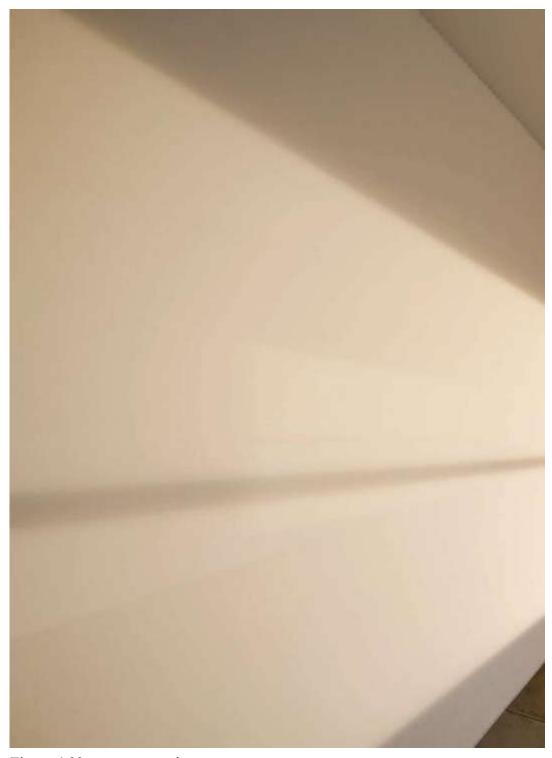


Figure 4.22; same as previous page.

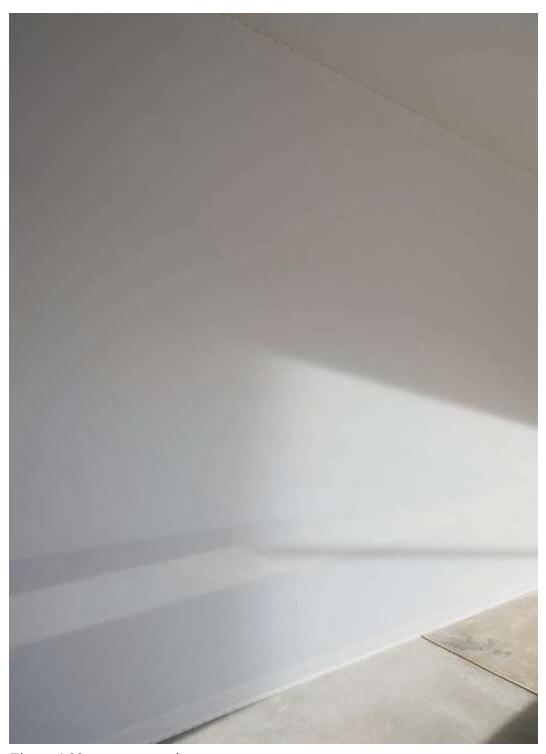


Figure 4.23; same as previous page.



Figure 4.24; same as previous page.



Figure 4.25; same as previous page.

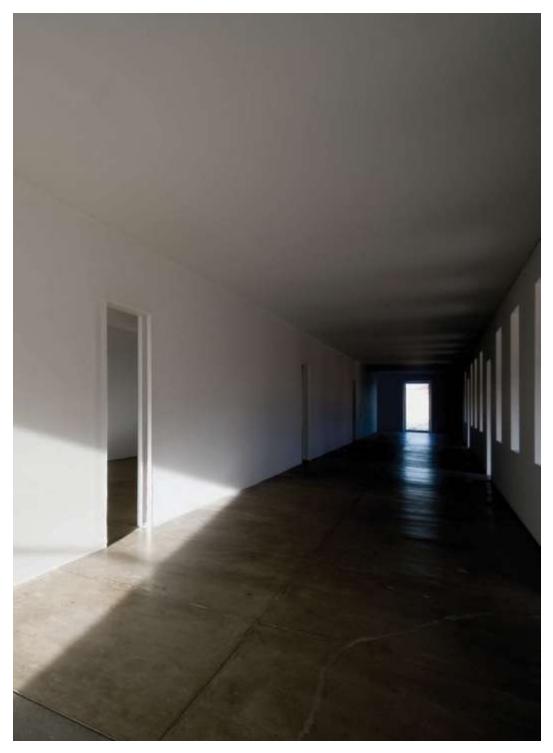


Figure 4.26; same as previous page.



Figure 4.27; same as previous page.



Figure 4.28; same as previous page.

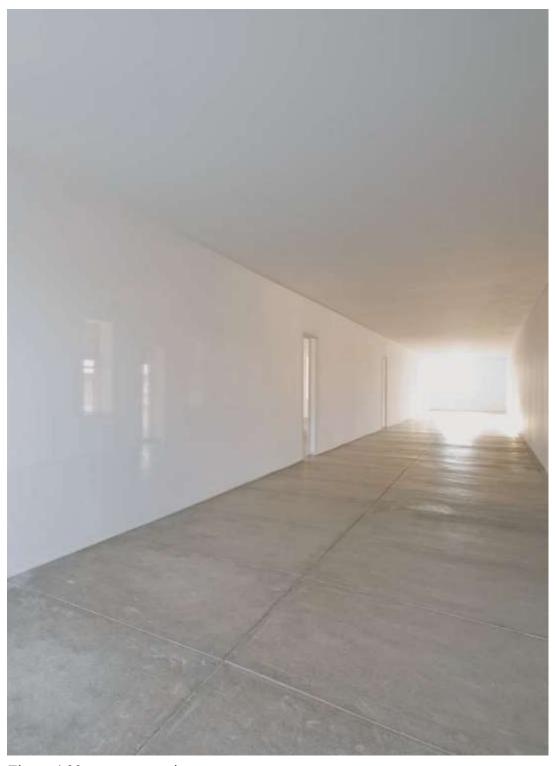


Figure 4.29; same as previous page.



Figure 4.30; same as previous page.



Figure 4.31; same as previous page.

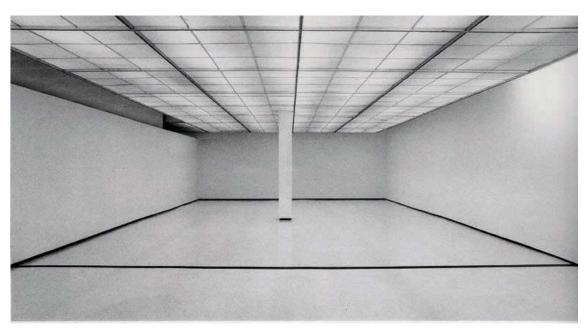


Figure 4.32; Robert Irwin; black line volume, installation at the Museum of Contemporary Art, Chicago; 1975–76; black tape.



Figure 4.33; Robert Irwin; untitled (four walls), installation at the Chinati Foundation, Marfa, Texas; 2006; voile tergal (synthetic scrim), wood, metal, tape, window-tinting film, light construction and framing materials; each long scrim wall, 106 in. x 106 ft.; each short scrim wall, 106 in. x 37 ft. 2 in.

**Reproductions for Chapter 5:** 

"Volume and Vision in Larry Bell's Art"

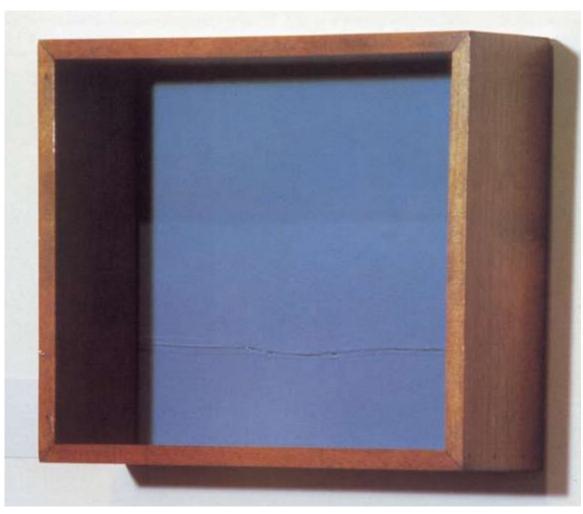


Figure 5.1; Larry Bell; untitled; 1959; glass, wood, paper;  $12 \times 14 \times 3$  in.



Figure 5.2; Larry Bell; untitled; 1959; glass, gold paint, wood, mirror; 11 x 12 x 4 in.

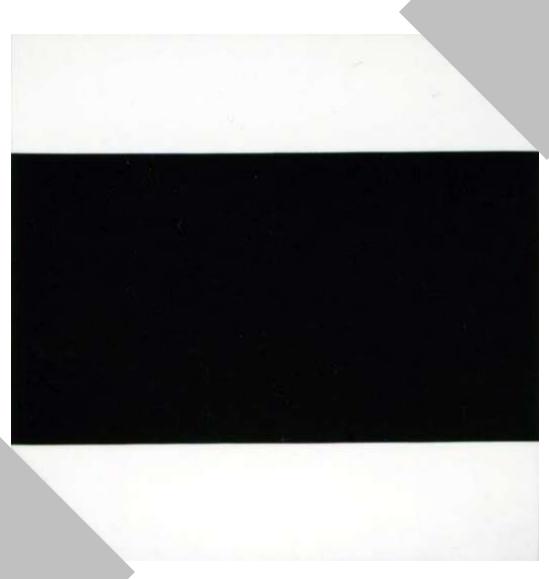


Figure 5.3; Larry Bell; My Montauk; 1960; acrylic on canvas; 66 x 66 in.

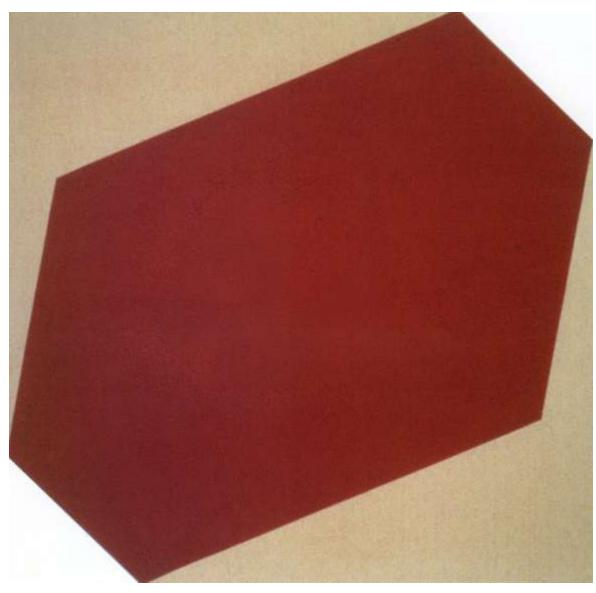


Figure 5.4; Larry Bell; *Little Blank Riding Hood*; 1961–62; acrylic on canvas; 65 x 65 in.

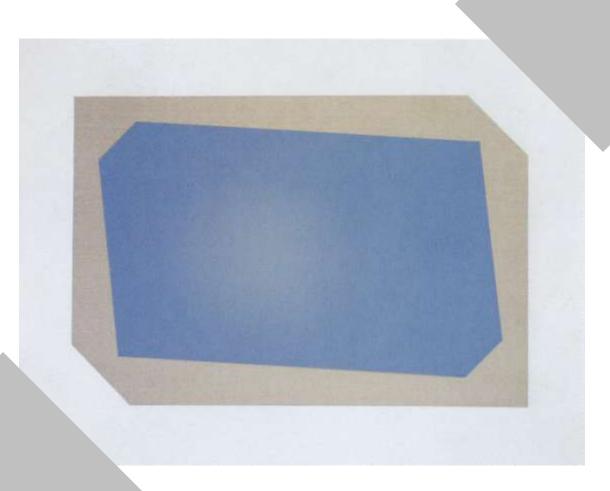


Figure 5.5; Larry Bell; Lux at the Merritt Jones; 1962; acrylic on canvas; 66 x 90 in.

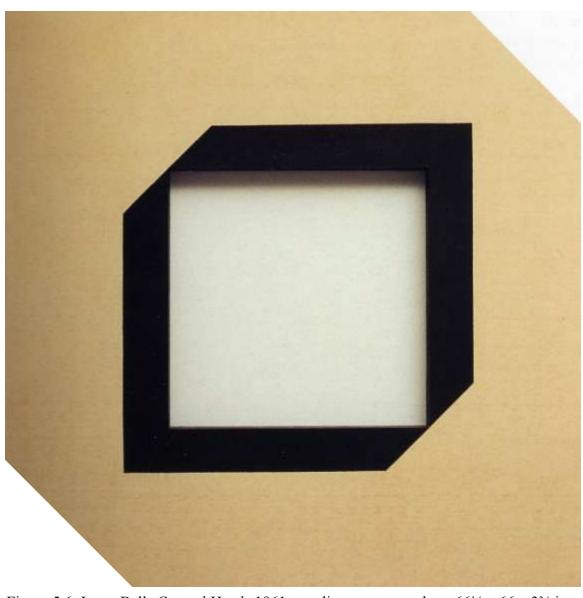


Figure 5.6; Larry Bell; Conrad Hawk; 1961; acrylic on canvas, glass;  $66\frac{1}{4}$  x 66 x  $3\frac{3}{4}$  in.

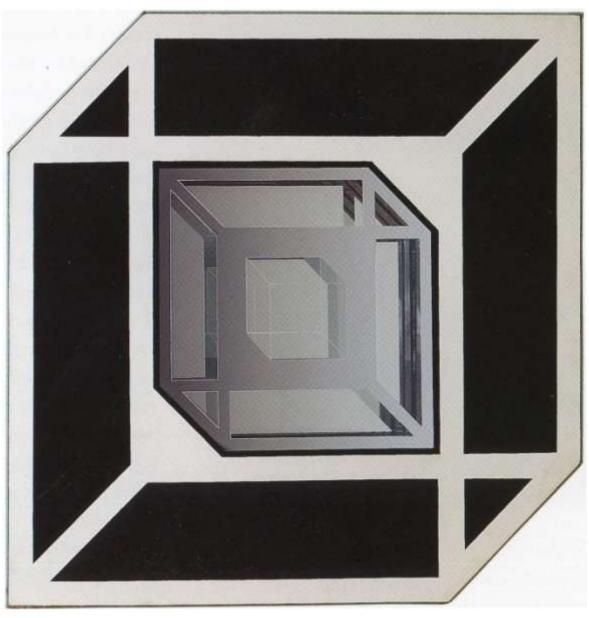


Figure 5.7; Larry Bell; *A Wisp of the Girl She Used To Be*; 1963; acrylic on canvas, mirror;  $48\frac{1}{2} \times 48\frac{1}{2} \times 3$  in.



Figure 5.8; Larry Bell; *Death Hollow*; 1962–63; vacuum-coated glass, wood, and chromium-plated brass; 24½ x 25 x 12 in.



Figure 5.9; Larry Bell; *The Aquarium*; 1962–63; vacuum-coated glass, mirror, epoxy paint, silver leaf; 24 x 24 x 18 in.

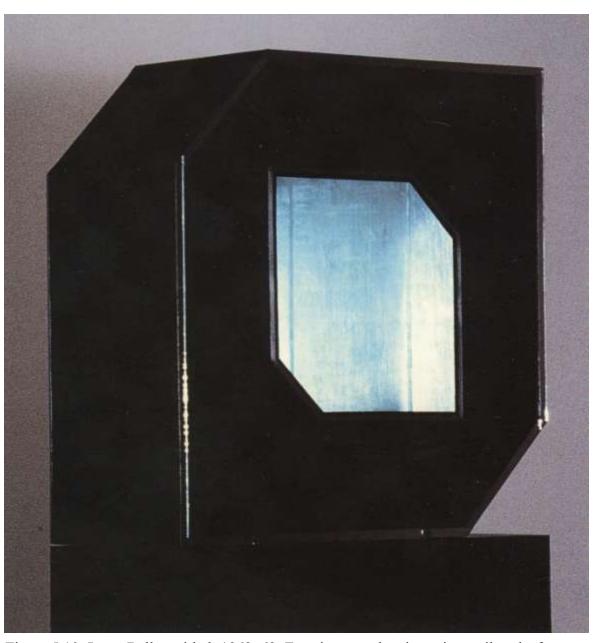


Figure 5.10; Larry Bell; untitled; 1962–63; Formica, wood, paint, mirror, silver leaf;  $24\frac{3}{4} \times 24\frac{3}{4} \times 10\frac{1}{4}$  in.

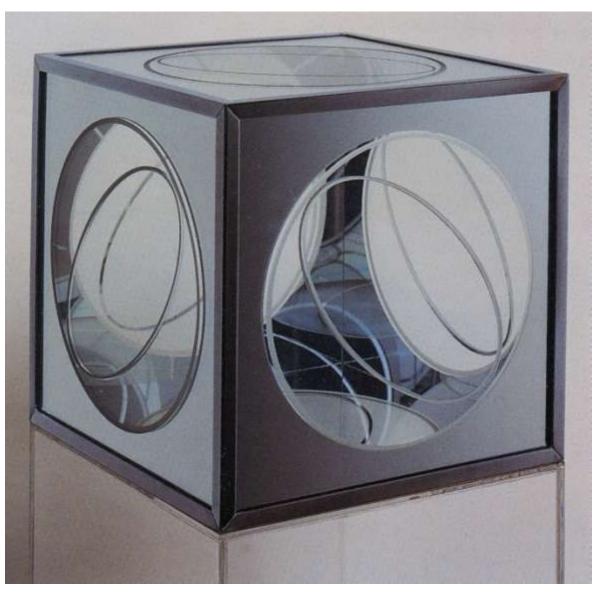


Figure 5.11; Larry Bell; untitled; 1962; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass;  $12\frac{1}{4} \times 12\frac{1}{4} \times 12\frac{1}{4}$  in.



Figure 5.12; Larry Bell; *Ghost Box*; 1962–63; vacuum-coated, mirrored, and sand-blasted glass; 48¾ x 48½ x 3¼ in.

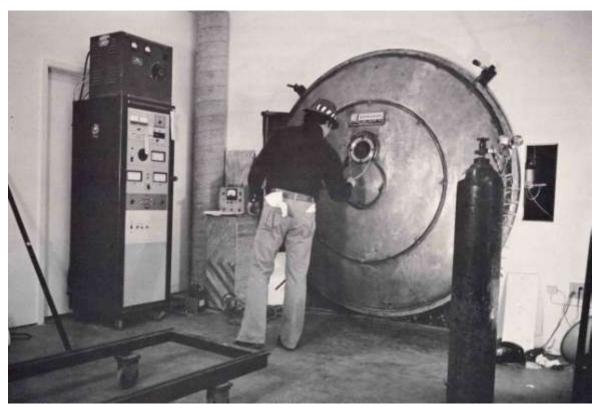


Figure 5.13; Larry Bell in front of vacuum-coating chamber; Taos, New Mexico; 1980.



Figure 5.14; Larry Bell; *Larry Bell's House, Part II*; 1962–63; wood, mirror, epoxy paint; 25 x 25 x 25 in.

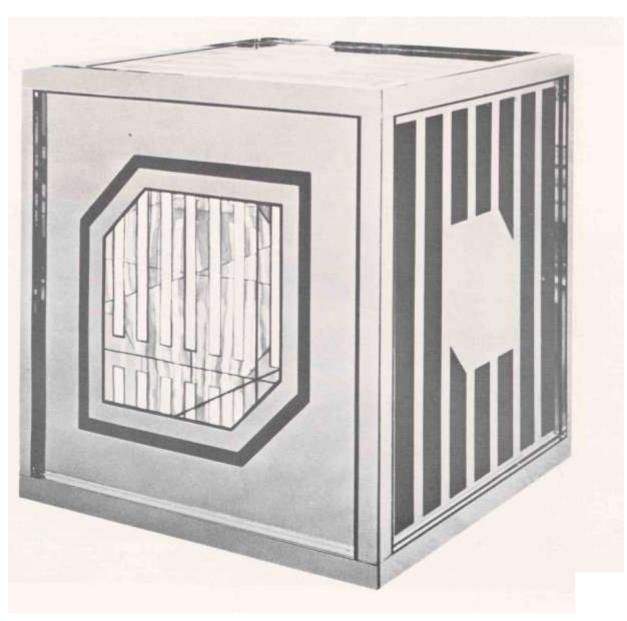


Figure 5.15; Larry Bell; *Larry Bell's House, Part II*; 1962–63; wood, mirror, epoxy paint; 25 x 25 x 25 in.

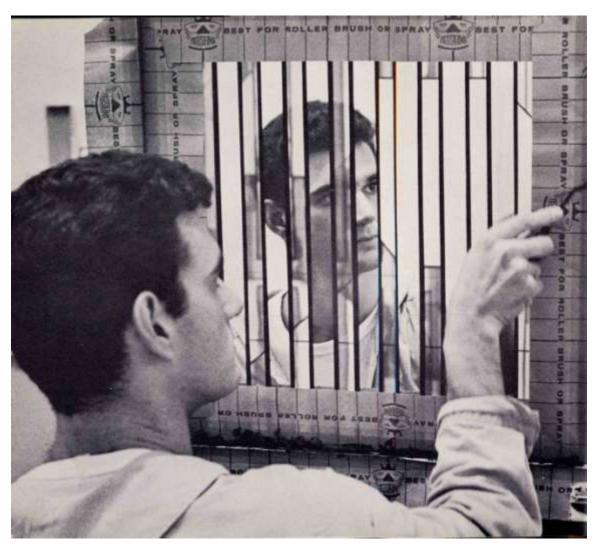


Figure 5.16; Larry Bell; *Larry Bell's House, Part II* in progress; 1962–63; wood, mirror, epoxy paint; 25 x 25 x 25 in.

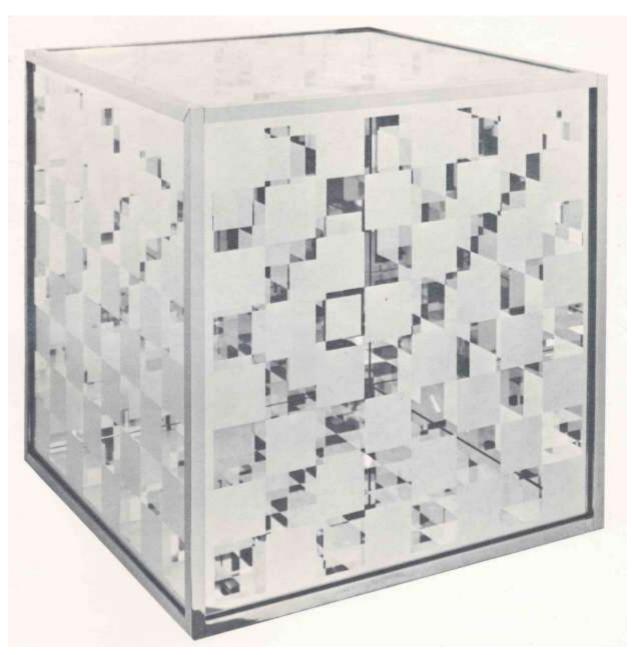


Figure 5.17; Larry Bell; *Bette and the Giant Jewfish*; 1963; vacuum-coated glass, chromium-plated brass; 16½ x 16½ x 16½ in.

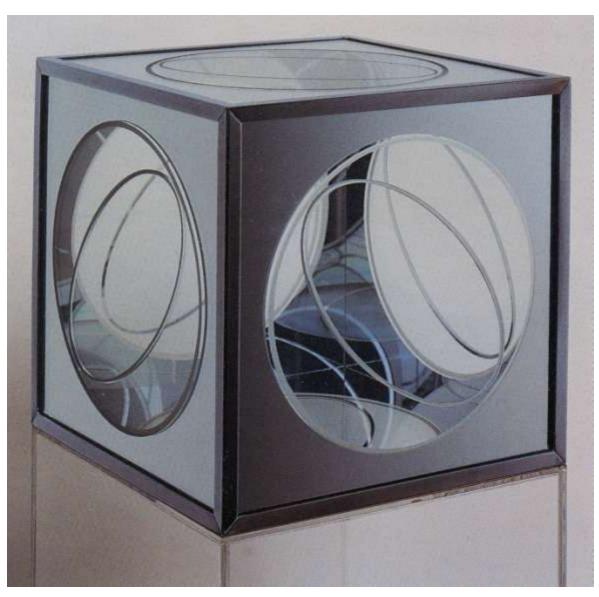


Figure 5.18; Larry Bell; untitled; 1962; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 12½ x 12½ x 12½ in.



Figure 5.19; Larry Bell; untitled; 1964; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 10<sup>1</sup>/<sub>4</sub> x 10<sup>1</sup>/<sub>4</sub> x 10<sup>1</sup>/<sub>4</sub> in.

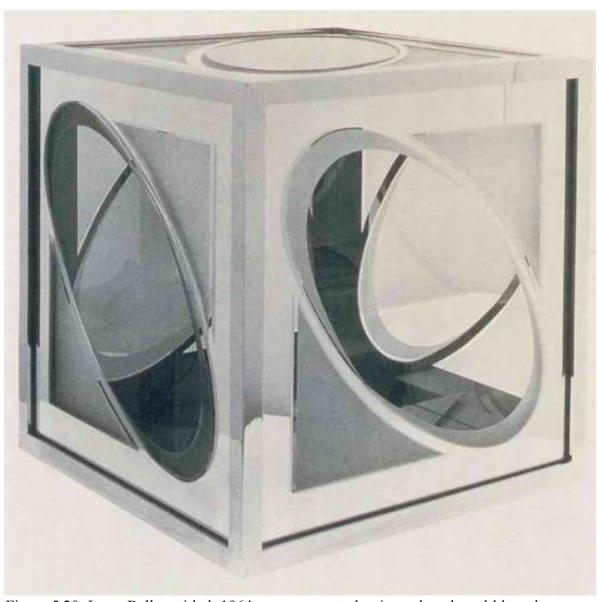


Figure 5.20; Larry Bell; untitled; 1964; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 14 x 14 x 14 in.

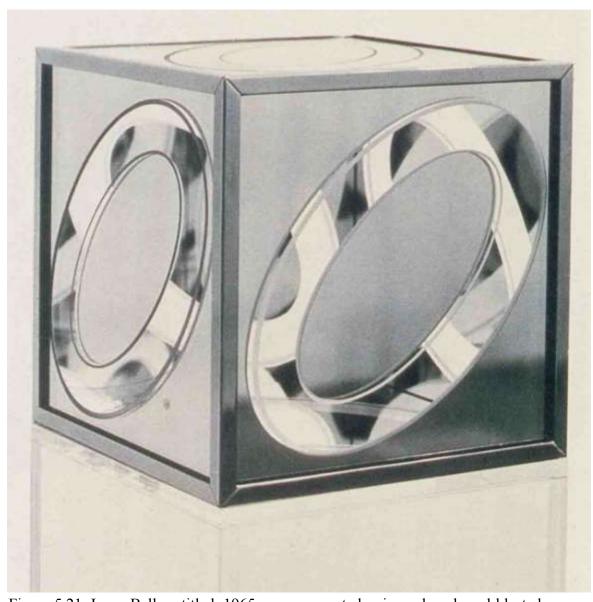


Figure 5.21; Larry Bell; untitled; 1965; vacuum-coated, mirrored, and sand-blasted glass, chromium-plated brass; 10 x 10 x 10 in.



Figure 5.22; Larry Bell; untitled; 1964; vacuum-coated glass, chromium-plated brass;  $14 \times 14 \times 14$  in.

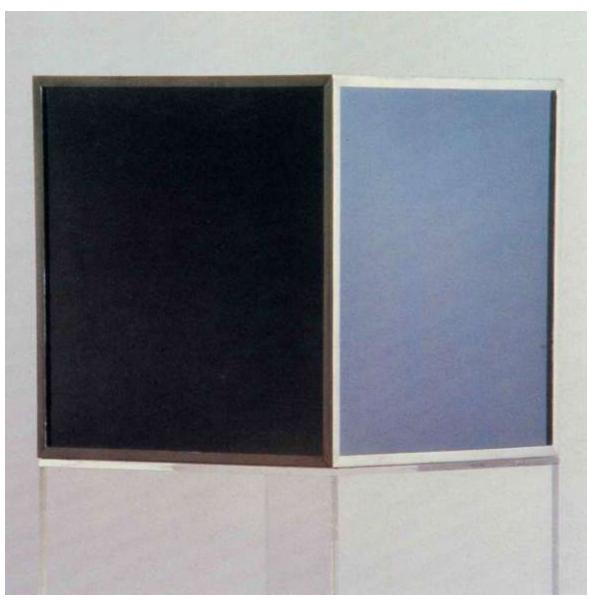


Figure 5.23; Larry Bell; untitled; 1966; vacuum-coated glass, chromium-plated brass;  $12\frac{1}{4} \times 12\frac{1}{4} \times 12\frac{1}{4}$  in.



Figure 5.24; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.

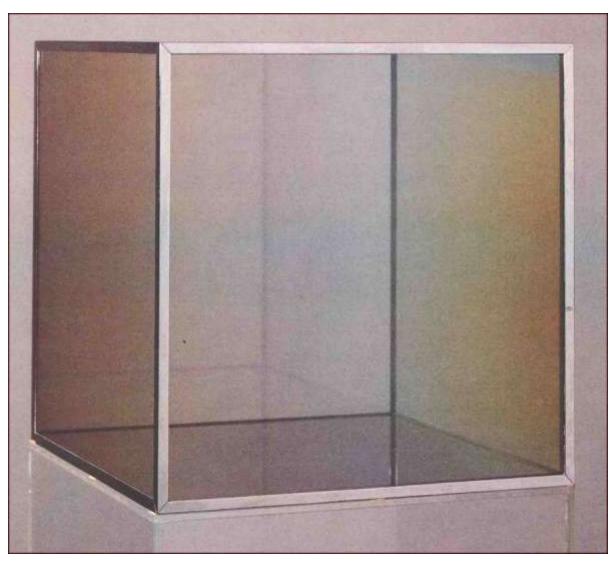


Figure 5.25; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.

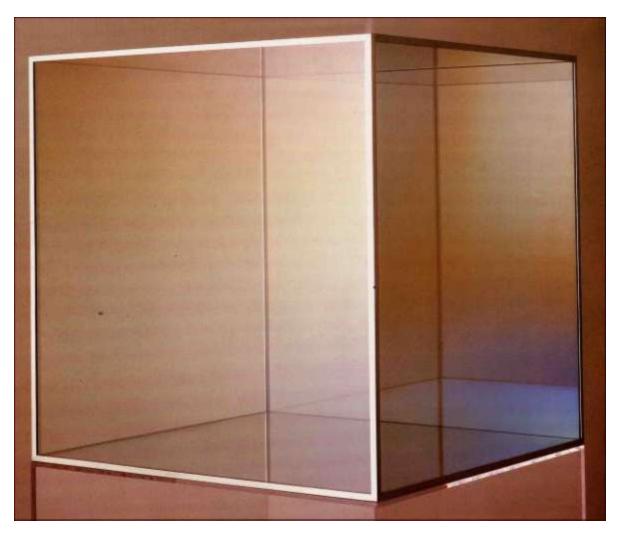


Figure 5.26; Larry Bell; untitled; 1968; vacuum-coated glass, chromium-plated brass;  $20 \times 20 \times 20$  in.



Figure 5.27; Larry Bell; *The Iceberg and Its Shadow*; 1974; 56 panels of  $^{3}/_{8}$  in. plate glass vacuum-coated with inconel and silicon monoxide; each panel between 57 and 100 in. tall x 60 in. wide; overall dimensions variable.

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## **VITA**

Adrian Michael Kohn attended high school at The Derryfield School, Manchester, New Hampshire. In 1996 he entered Georgetown University in Washington, DC. He received the degree of Bachelor of Arts from Georgetown University in May, 2000. In September, 2001, he enrolled at the School of the Art Institute of Chicago and received a Master of Arts in art history, theory, and criticism in May, 2003. In September, 2003, he entered the Graduate School at The University of Texas and began work in the doctoral program in art history.

Permanent Address: 10991 East Indigo Bush Place, Tucson, Arizona, 85748

This dissertation was typed by the author.