

LIGHT, MOTION, AND SPACE

A THESIS SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF FINE ARTS
IN ART
JUNE, 1968

By

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We certify that we have read this thesis and that in our opinion it is satisfactory in scope and quality as a thesis for the degree of Master of Fine Arts in Art.

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In this century with our swiftly changing technology, art is becoming increasingly involved in what seems to be a technological renaissance. The artist, living as he does and being made continuously more aware of his supertechnological society, often turns to the processes, tools, and imagery of science and industry. Though the artist has always employed many of the new tools and ideas of his time, he has never done it quite so readily or with such enthusiasm as now.

Normally technology is associated with the qualities of being rational, mechanical, and mathematical. It is often thought to be inhuman and dry, unevocative and lacking in emotion.

Many artists, however, see in technology a chance for art to elicit a greater response on the part of the individual. It seems possible in light art and kinetics that each person should be able to achieve a heightened awareness of the interaction of himself with his immediate environment in an ever changing time and space continuum.

In the work for my thesis, through the use of materials, processes, and techniques which appear to be, or are, mechanical or technological in nature, I have strived to elicit this response. In using this approach, I have tried to make each piece rise above the technique to a point where it becomes primarily contemplative or meditative in character. In viewing each work, it is my feeling that the individual can, if he allows himself, become so engulfed or compelled into the space of the painting that he becomes one with it. He can then rise above the work to a new state or level of thought and awareness, and the painting acts principally as an implement in this process.

For me the work is primarily Asian in character, for it is meant to evoke a response similar to that which one would receive in contemplating a mandala, a Zen garden, or an image of the Buddha. It is spiritual, but containing a spirituality not particular to any one religion of the East or West. To me it speaks of Truth, that Truth which each one of us can find within himself. Utilizing the tools and materials and the very mechanical nature of our modern age, I have tried to express this contemplative nature in painting and sculpture.

The work is of two general types: the two-dimensional paintings which utilize physiological retinal fatigue to make the painting blur and seem to move, and the works which are primarily three-dimensional and use light to cause the painting to shift in space. In the first instance I was concerned with a kinetic space within each painting and then, in the latter, with the experiencing of a kinetic, haptic space that exists between the viewer and the object.

In the paintings which are two-dimensional and rely on retinal fatigue one becomes lost in the ever shifting, changing subtleties of the visual experience. One moves backwards and forwards as well as vertically and horizontally in a dimensional space that physically does not exist within the painting.

However, in the works which utilize a specific light source the individual becomes more aware of the magnetic and dynamically charged space existing between him and the object. The observer begins to sense or feel this space much as dancers activate and become aware of very important spacial relationships between themselves.

The paintings, too, are Asian in that they have grown out of the sense of haptic space that is so readily experienced in that expanse of land stretching from the eastern edge of the Mediterranean to the far shores of the Indian subcontinent. In the desert wastes and sparse material wealth, life and man's relationship to all that is about him takes on a deep and significant meaning. It was there that I was able for the first time to become significantly aware of that vital haptic space that exists between me and those objects which I perceive. It seems that where one is not bombarded with an overwhelming array of visual clutter, one can more easily come to experience a myriad of meaningful spacial sensations. There one can actually feel the space of a great mosque or the simple interior of a villager's home which might at first glance appear empty except for the thick carpet on the floor. That space which exists between a man and his friend, or between him and the distant shepherd or that nebulous mirage across the searing desert, becomes a very intimate and magnetically vital space.

Utilizing light and motion and some of those materials characteristic of our culture, it was my intention to elicit those subtle perceptions of haptic space which so often go unnoticed in our society.

I hope that each person who views my work will respond to those individual sensations incited within him. For the viewer it should become a purely personal experience not requiring intellectualization or preconceived understanding. Through this I hope he can come to a truer understanding by a faculty higher than the intellect, that faculty being individual experience and personal insight.

MATERIALS, TECHNIQUES, AND SOURCES USED

IN THE DEVELOPMENT OF THE WORK

Since some of the materials, processes and techniques used in the creation of the work for the thesis are not commonly understood and known, the following is a brief explanation of each piece.

PLATES 1,2,3, and 4

The paintings in plates 1,2, and 3 are done on 30x30" illustration board in enamel, whereas, "Mandala", plate 4, is enamel on gessoed masonite. It was found advisable to work on masonite because of its durability and permanence. To preserve the paintings done on illustration board, they were glued to a sheet of 1/8" masonite and enclosed in a clear plexiglas case obtained from Hawaii Plastics.

The background of each painting was sprayed with orange Paint-O-Matic Spray Paint enamel. The blue areas were sprayed with Krylon Car Color, pagoda green. Color fastness tests were run for a total of nine weeks with exposure to direct sun light and no detectable change of color was observed in each instance. The squares and circles for "Painting for Contemplation, Part I and Part II" were hand cut or punched from spray painted drawing paper. A solution of Elmer's white glue and water was carefully brushed on the back of each square and circle before it was placed in position.

"Portrait of the Buddha..." and "Painting", plates 2 and 3, were done by masking out the design on the orange background and spray painting the entire area with pagoda green.

"Mandala", plate 4, was executed in the same manner as "Painting for Contemplation, Part I and Part II"; however, the

light green circles were cut from Colormatch paper obtained at Bader's, Inc. Color fastness tests were run in direct sunlight for a total of five weeks on various blue and green colors from the following brands of paper: Colormatch, Fadeless, and Color Aid. No detectable change of color was observed during this time in the Colormatch papers tested. The most pronounced degree of fading was observable in Fadeless paper and all the Color Aid papers showed considerable fading.

A plexiglas case was placed over "Mandala" to preserve the paper collage.

PLATE 5

"Mandala II" was painted with Liquitex Acrylic colors on gessoed masonite. Several coats of the background color were brushed on in opposite directions allowing each coat to dry before applying the next. This procedure was found advisable to secure a uniform and vibrant color. Each dot was brushed with several coats of paint to make it opaque.

PLATES 6 through 13

These paintings were executed with a ruling pen and Liquitex colors on gessoed masonite prepainted with a coat of white Liquitex Acrylic. For thicker lines, color was brushed between the ruled outlines. It was found necessary to wash the plexiglas surface in plates 12 and 13, to remove fingermarks before ruling the lines in Liquitex; otherwise, the paint would not adhere to the surface.

PLATE 14

"Overbearing" is acrylic on masonite and has the bowl portion of an aluminum dog dish mounted in its center. This and the

polished stainless steel rim were adhered to the masonite backing with epoxy steel. Originally a zinc alloy was used around the edge of the painting, but it quickly corroded and was replaced with stainless steel obtained at Durant-Irvine Co., Ltd.

PLATES 15 and 16

"If I Could See" and "Then I'll Believe" have four fluorescent tubes arranged in a square around the concave plexiglas dome. Fluorescent was used because of its relatively low operating temperature. The tubes were placed at least $1\frac{1}{2}$ " from the plexiglas. Ballasts were set about 2" or more from the plexiglas, and mounted on asbestos with an inch air space between them to keep the ballasts from overheating. The electrical system was approved by an electrician.

The housing for the electrical components was constructed of masonite. The back portion was designed to remain about 2" from the concave dome and was painted white to reflect light. The back is removable to provide access to the lamps.

The clear plexiglas domes were obtained from Bob Shigetomi at Island Neon. To keep the acrylic paint from scratching and peeling on the plexiglas, a coat of clear spray varnish was applied to the portion of the dome that was to be in the interior of the painting. The best results were obtained by spraying thin coats of Liquitex Acrylic paint on the dome while it was placed over the lighted housing. In this way it was possible to build up a thicker coat of paint at the point where the dome was close to the lamp, and thereby, with repeated coats, secure an even glow across the dome.

To obtain the color change in "Then I'll Believe" thin coats

of yellow and blue enamel were sprayed on first, followed by several coats of white Liquitex to keep the red (on the yellow) and yellow (on the blue) from bleeding through in the following applications. To eliminate distracting reflections Krylon Matte Finish was sprayed on the exterior plastic surface.

Stainless steel was cut to specifications by Norman Lum at Pacific Sheet Metal and adhered to the masonite with epoxy steel.

PLATES 17, 18, and 19

The three 4" clear plexiglas cubes for "Transvanescence" were obtained from Terrell's Plastics, 3618 Broadway, Sacramento, California 95817, and were adhered to a gessoed 1/8" masonite plate of the same size with clear epoxy adhesive. A circular plate was then attached to the masonite and this in turn was screwed to the shaft which was mounted in bearings. Pulleys were made from faucet washers and the belt was made from a leather shoe string. Originally two clock motors were used to drive the cubes, but, later a 1 RPM shaded pole gearmotor, stock # 3M095, obtained from W. W. Grainger, Inc., 2200 Adeline Street, Oakland, California 94607, was installed.

The backing is gessoed masonite painted with an off white Liquitex Acrylic.

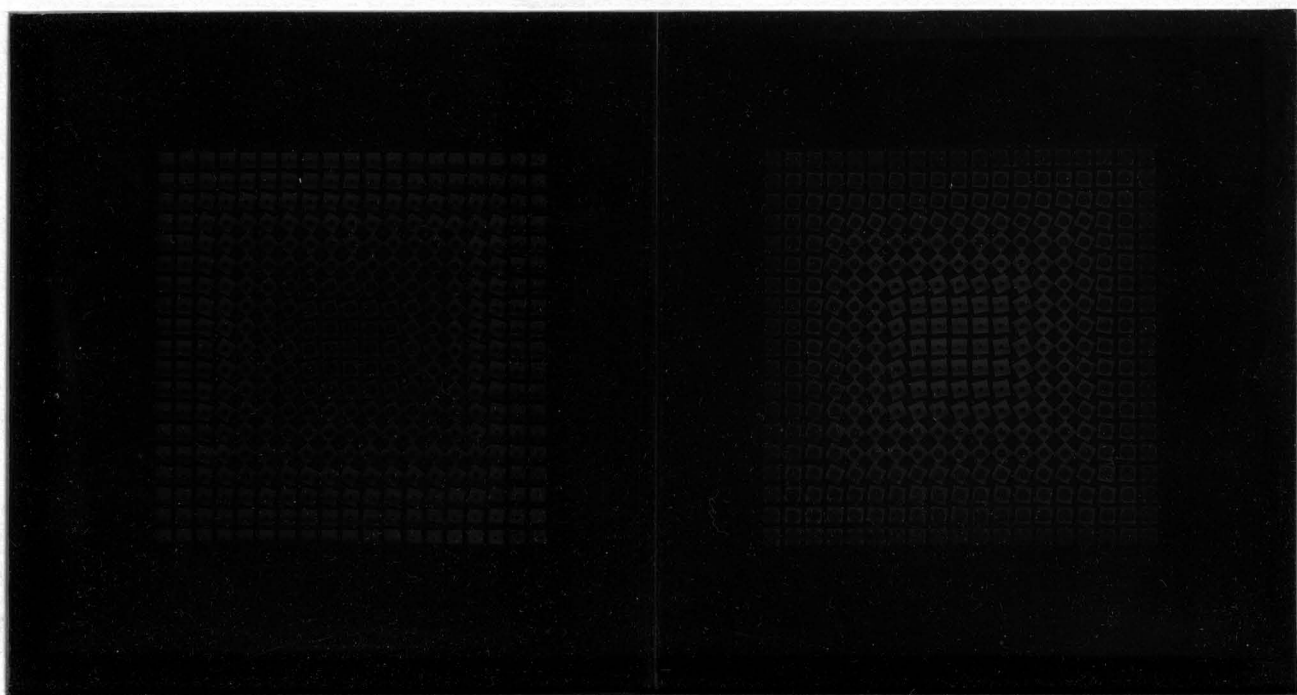
PLATE 20

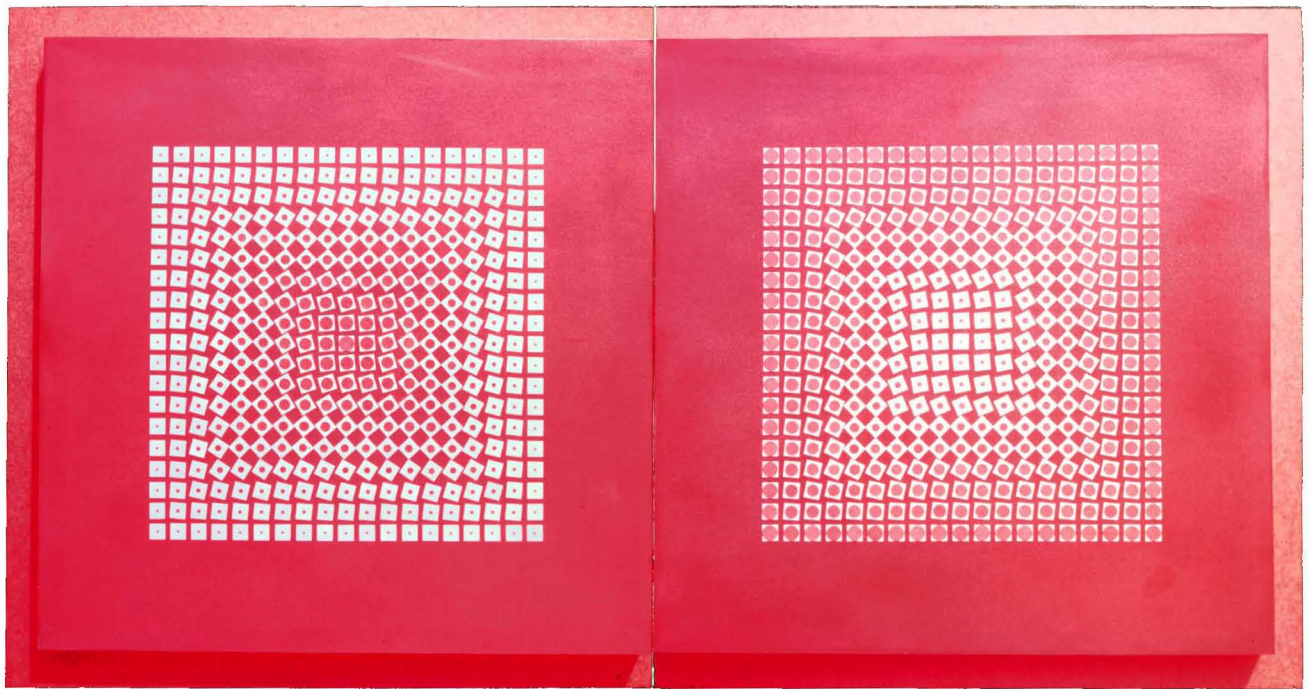
Surface texture in "Meditation" was obtained by rolling on a solution of Liquitex modeling paste, gel medium, and gesso. One 48" fluorescent tube was used in a wooden light box at the rear of the painting. Because rapid start ballasts require contact with a metal housing, a preheat ballast was used in this painting.

LIST OF ILLUSTRATIONS

- Plate 1 "Painting for Contemplation, Part I and Part II". 1966. Enamel collage, each 30x30".
- Plate 2 "Portrait of the Buddha - Turning of the Wheel of Law in Motion". 1966. Enamel, 30x30".
- Plate 3 "Painting". 1967. Enamel, 30x30".
- Plate 4 "Mandala". 1967. Enamel collage on masonite, 30x30".
- Plate 5 "Mandala II". 1967. Acrylic on masonite, 30x30".
- Plate 6 "Small Painting for Contemplation". 1967. Acrylic on masonite, 9½x9½".
- Plate 7 "Another Small Painting for Contemplation". 1967. Acrylic on masonite, 9½x9½".
- Plate 8 "Small Painting for Contemplation III". 1967. Acrylic on masonite, 9x9".
- Plate 9 "Small Painting for Contemplation IV". 1967. Acrylic on masonite, 9x9".
- Plate 10 "Ambiguous Box I". 1967. Acrylic on masonite, 9½x9½".
- Plate 11 "Ambiguous Box II". 1967. Acrylic on masonite, 9½x9½".
- Plate 12 "Painting for Ambulation". 1967. Acrylic on plexiglas and masonite, 9½x9½". As one moves, interference patterns are created by the design and its shadow.
- Plate 13 "Painting for Ambulation - Variation #2". 1967. Acrylic on plexiglas and masonite, 9½x9½".
- Plate 14 "Overbearing". 1967. Acrylic on masonite and stainless steel, 47" diameter, 3½" depth.
- Plate 15 "If I Could See". 1967. Acrylic and enamel on plexiglas, stainless steel on masonite, 40x40x6". Fluorescent tubes inside light the concave plexiglas dome.
- Plate 16 "Then I'll Believe". 1968. Enamel and acrylic on plexiglas, stainless steel on masonite, 36x36x5½". The fluorescent tubes inside light the concave plexiglas dome and change the colors from those in example A to those of example B.
- Plate 17,18,19 (three stages) . "Transvanescence". 1968. Plexiglas and acrylic on masonite, 85x56x7". The three plexiglas cubes slowly revolve transmitting intercepting patterns of light and shadow.
- Plate 20 "Meditation". 1968. Fluorescent tube, plexiglas, and acrylic on masonite, 59x49".

Plate 1





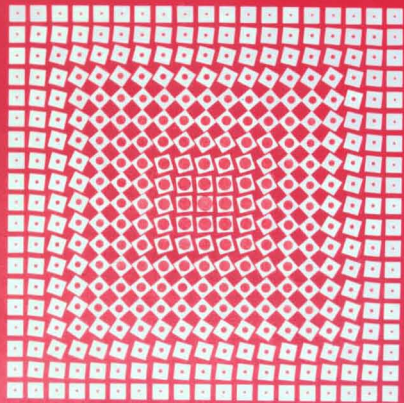
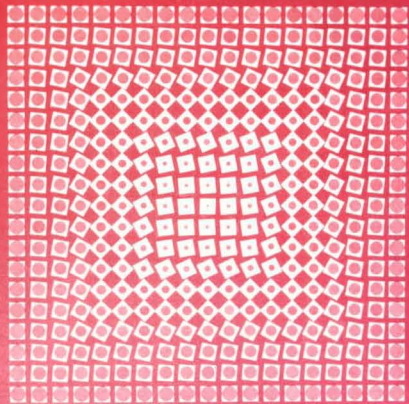
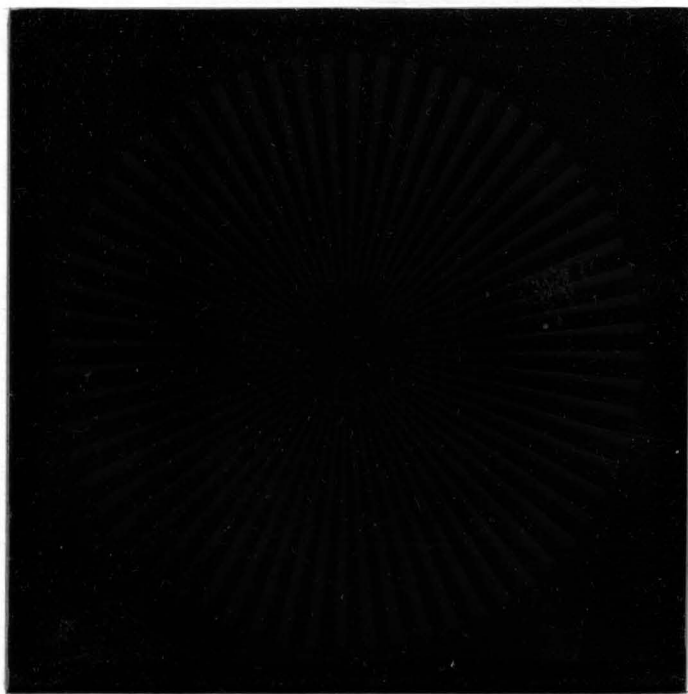


Plate 2



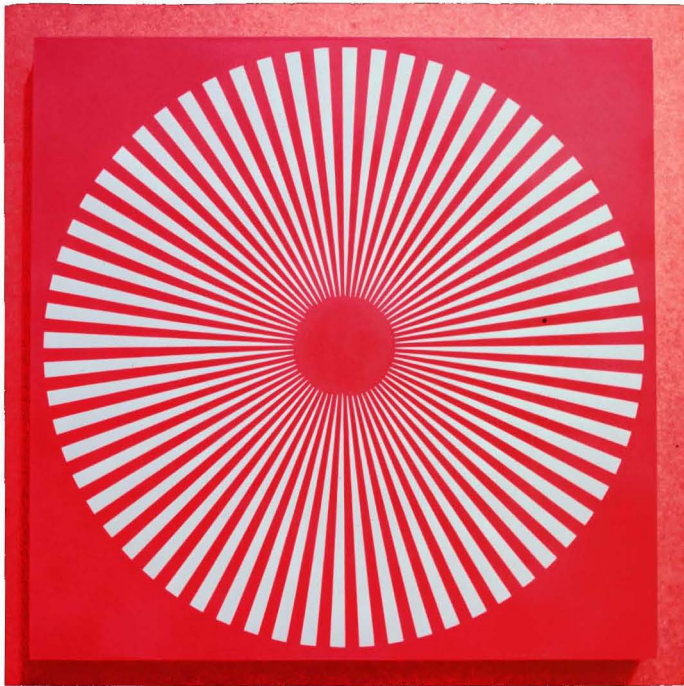




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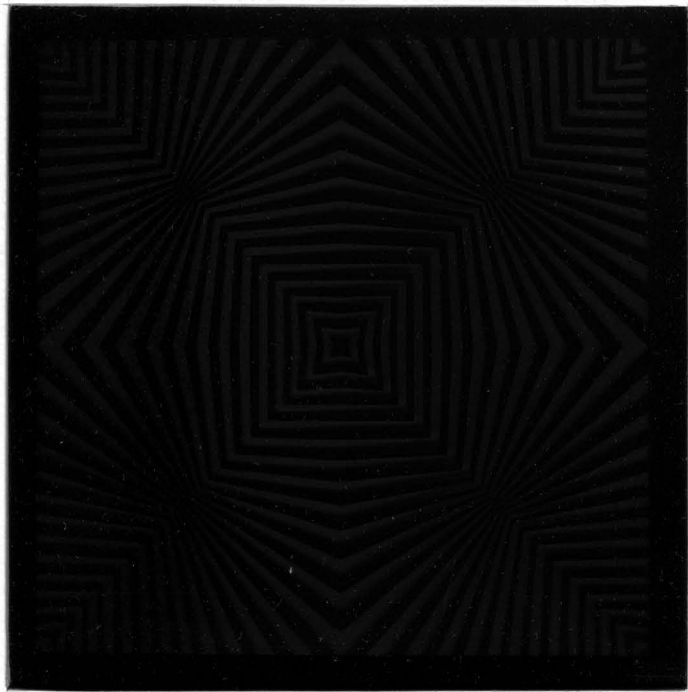
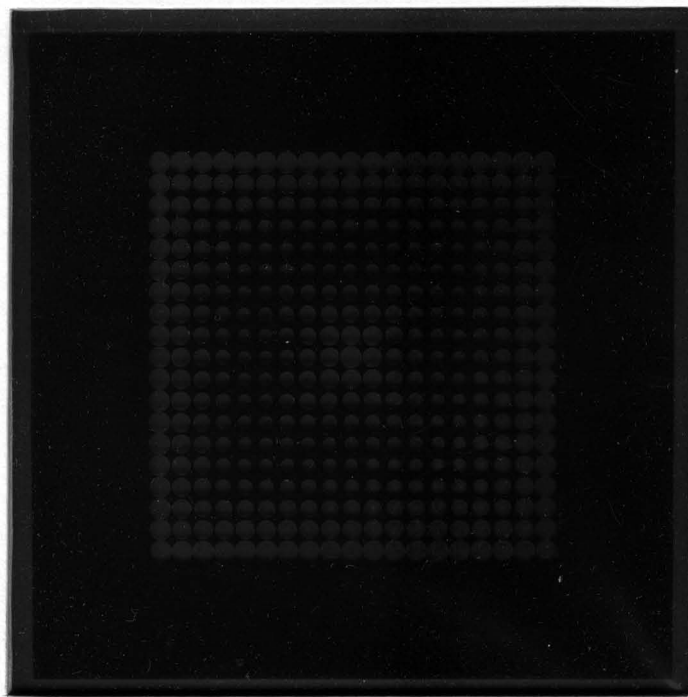
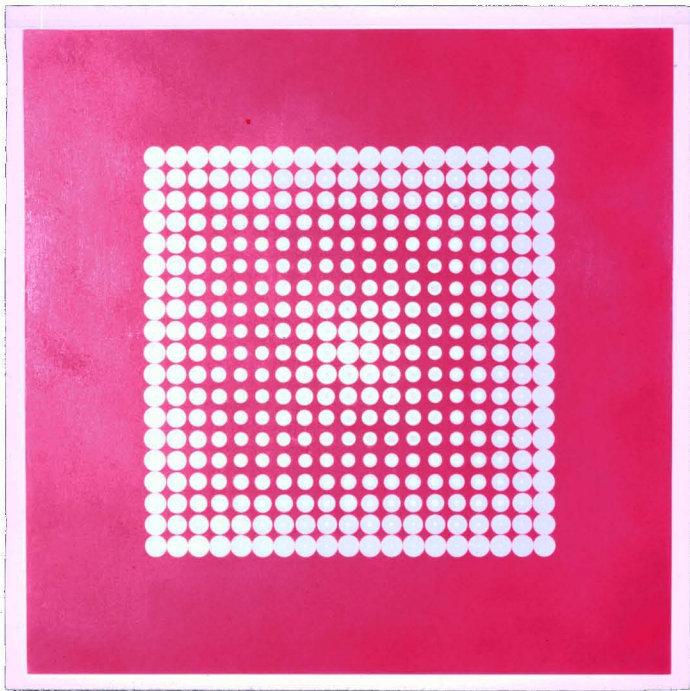






Plate 4





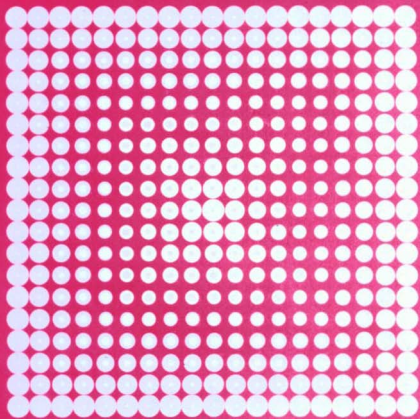
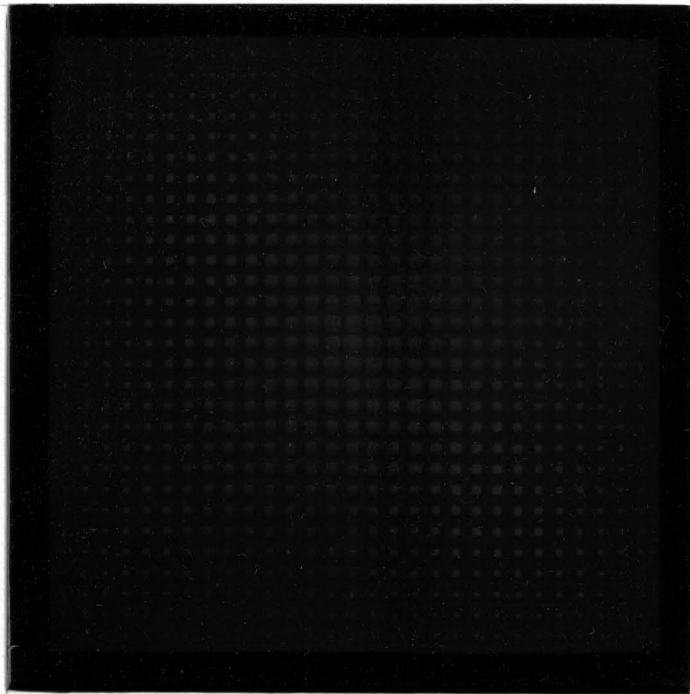
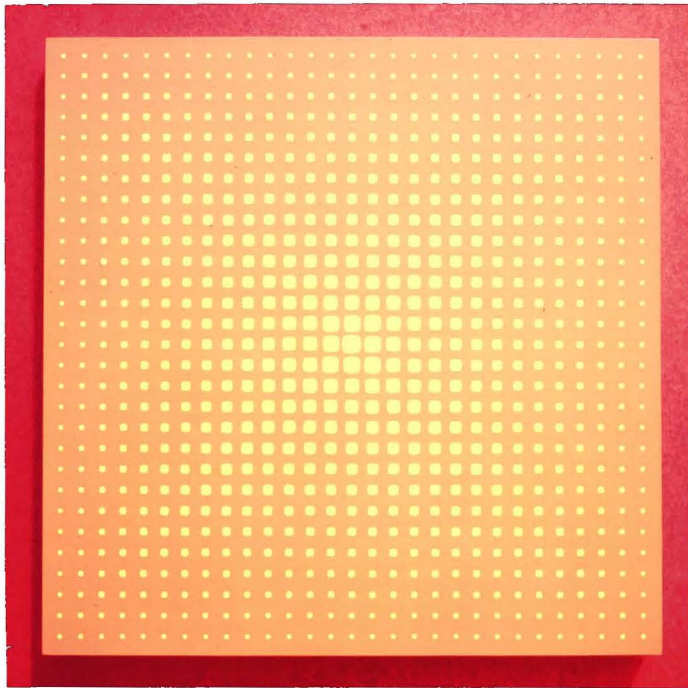


Plate 5





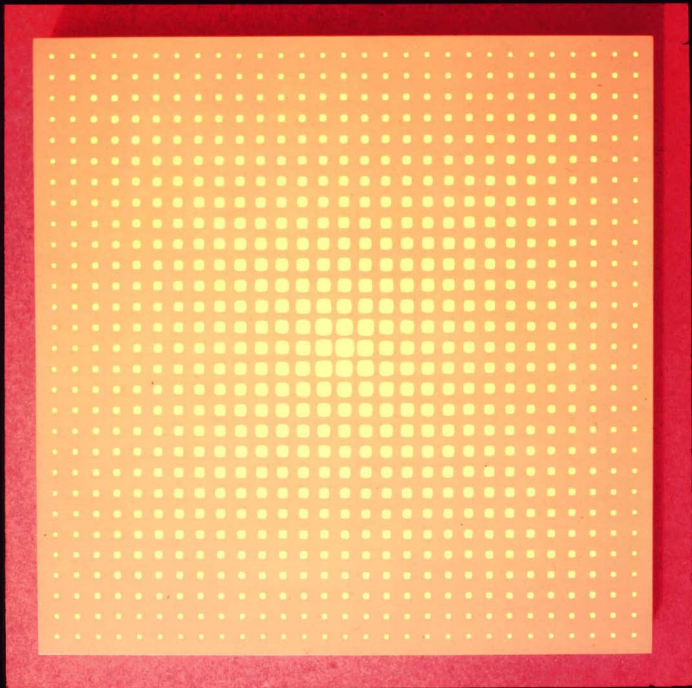
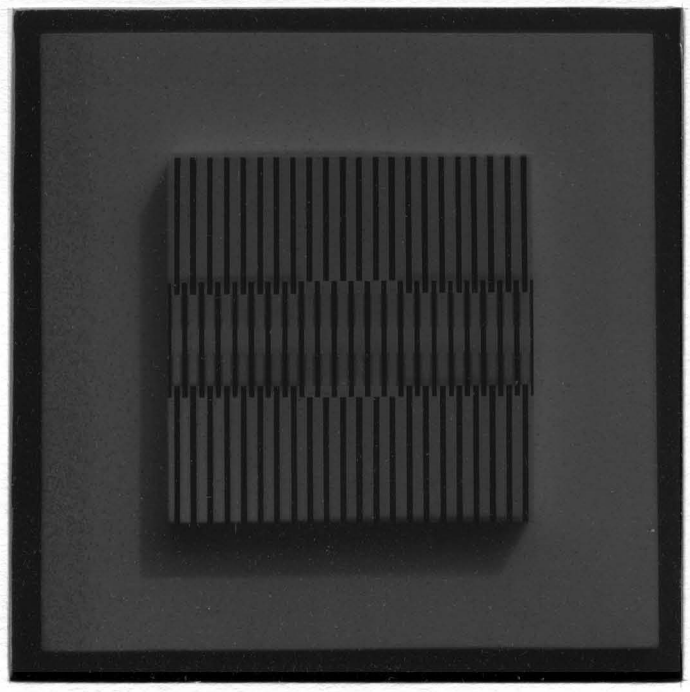
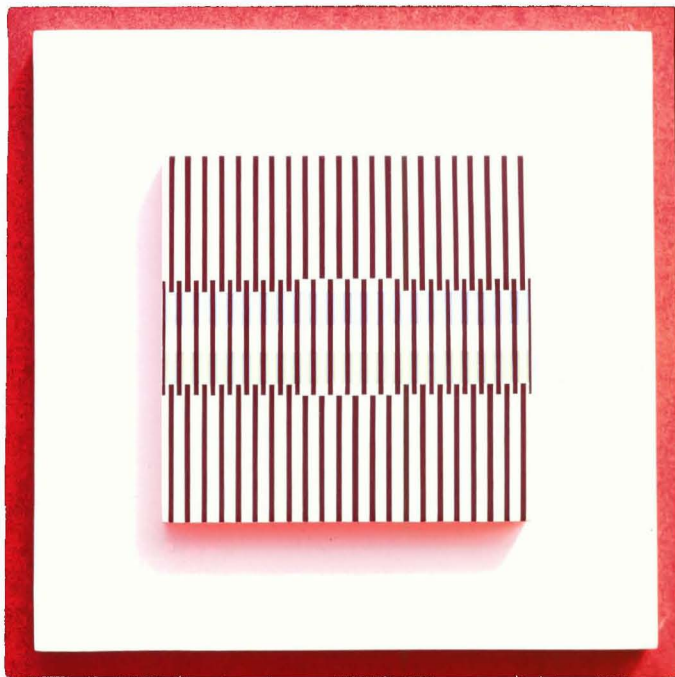


Plate 6





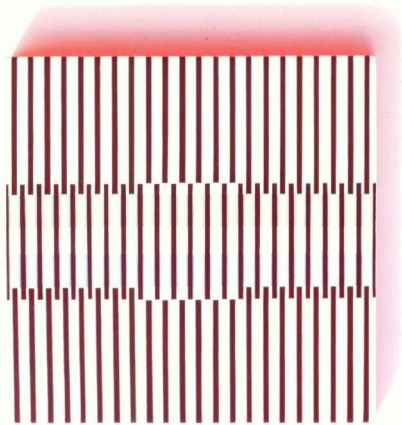
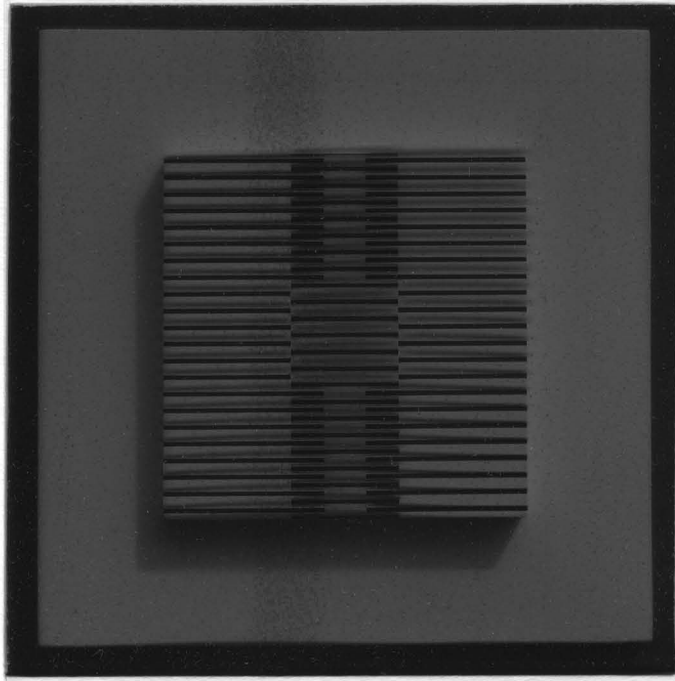
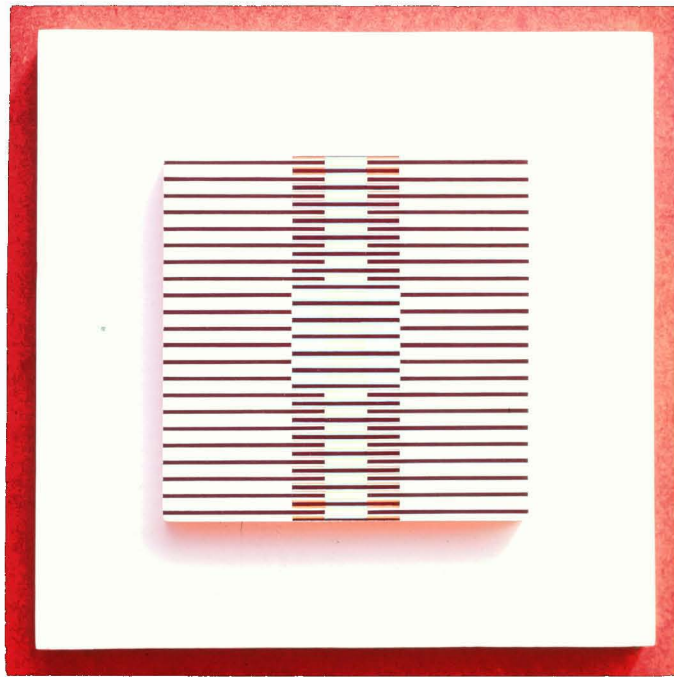


Plate 7





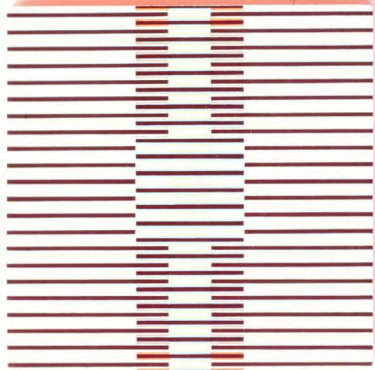
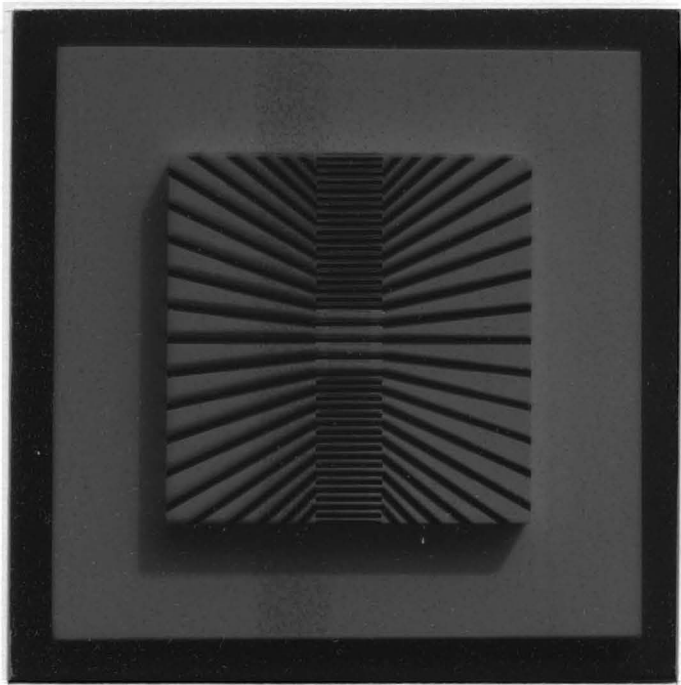


Plate 8



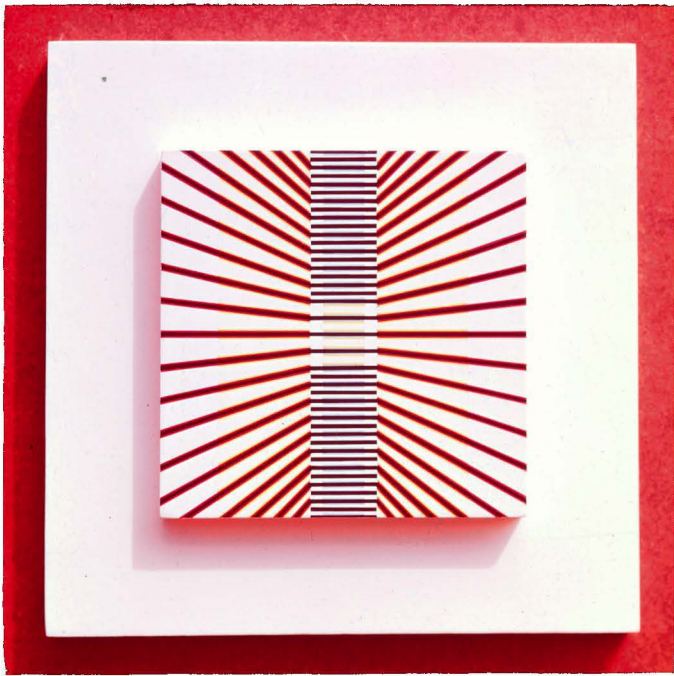
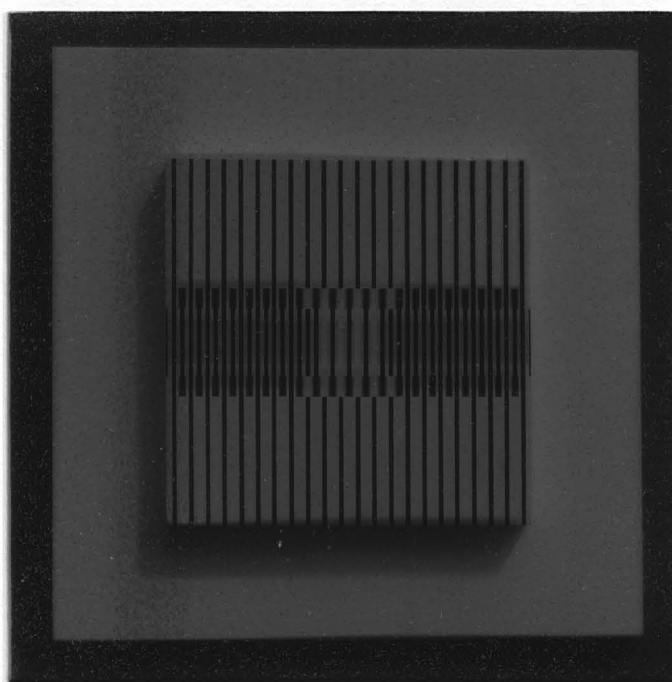
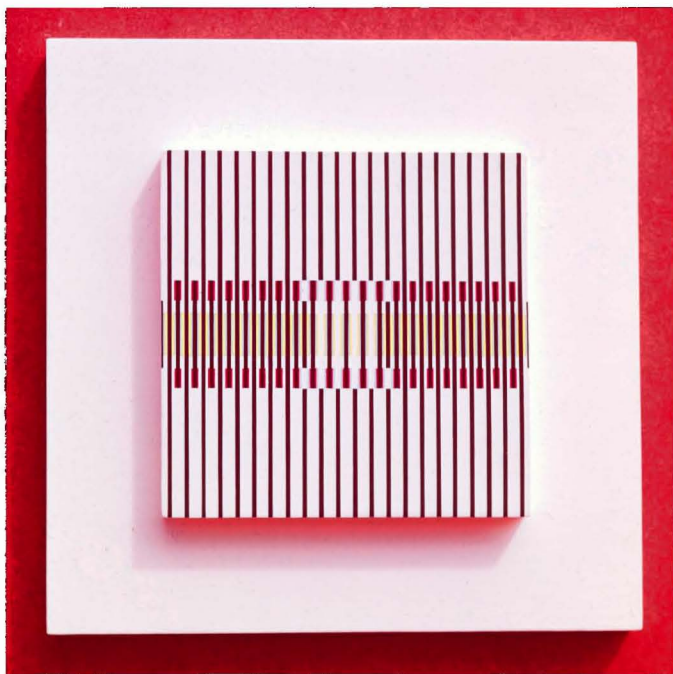




Plate 9





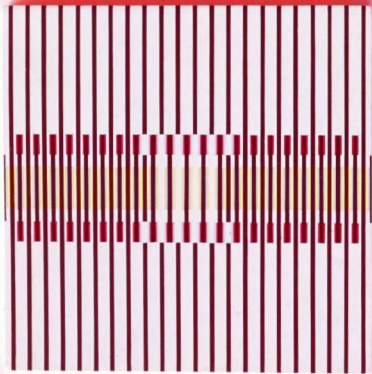


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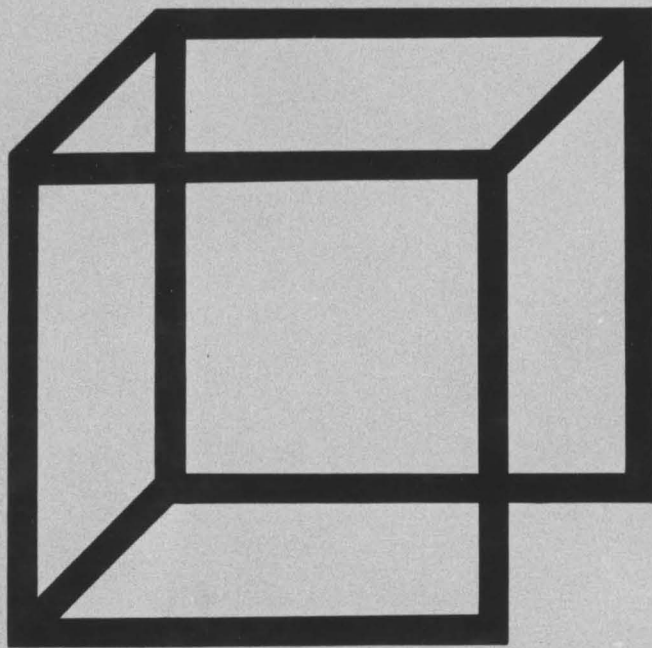


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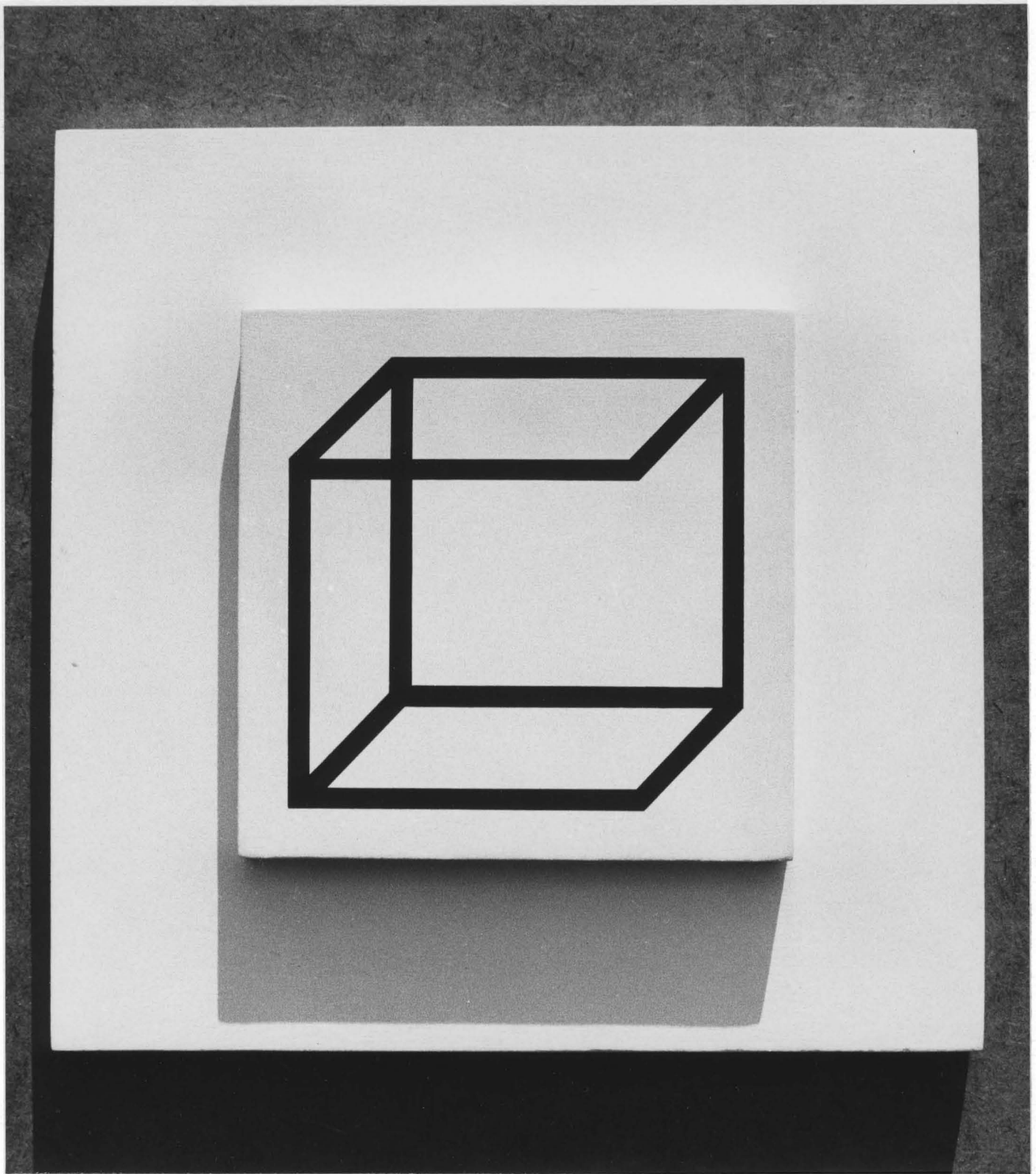


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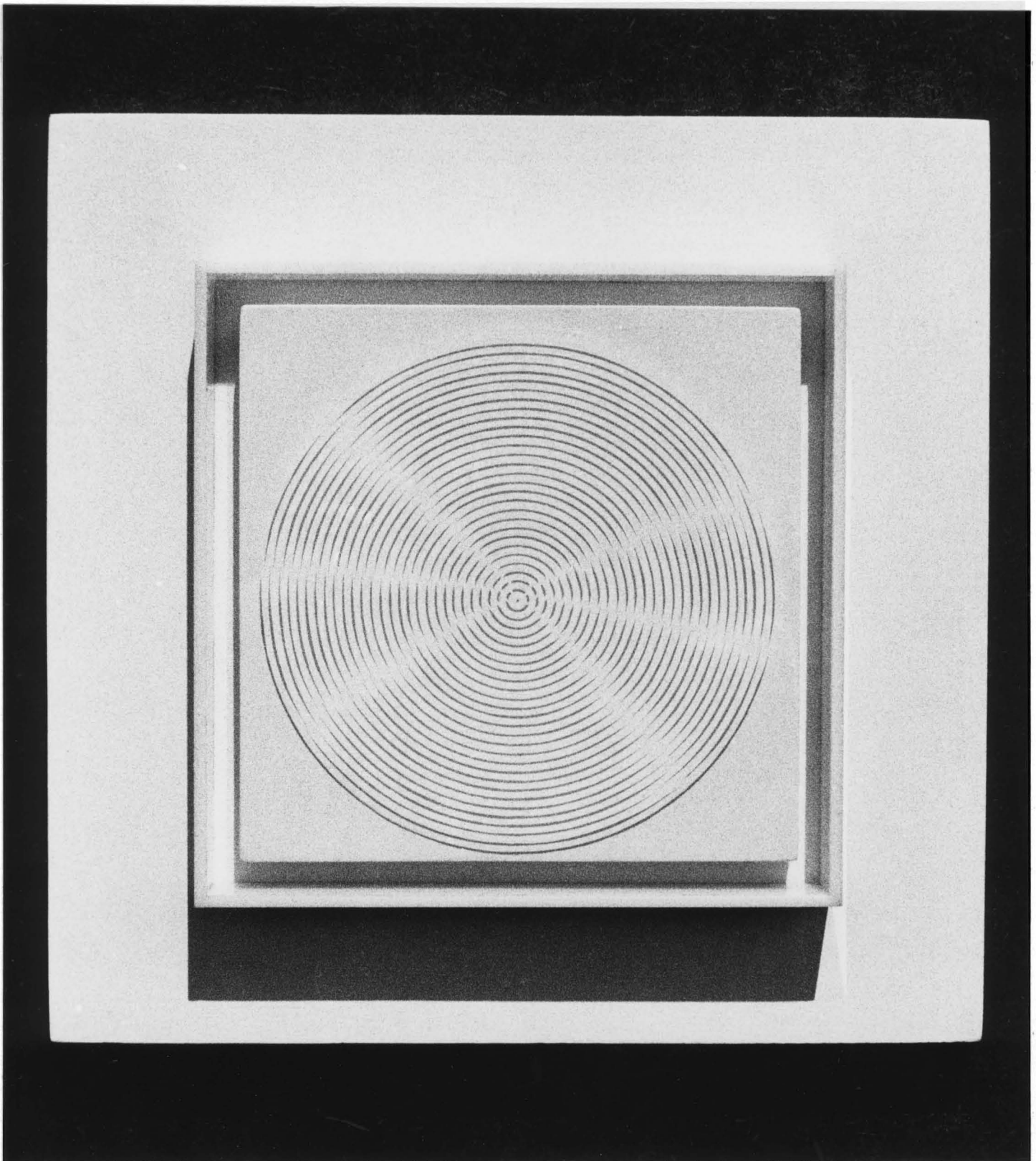


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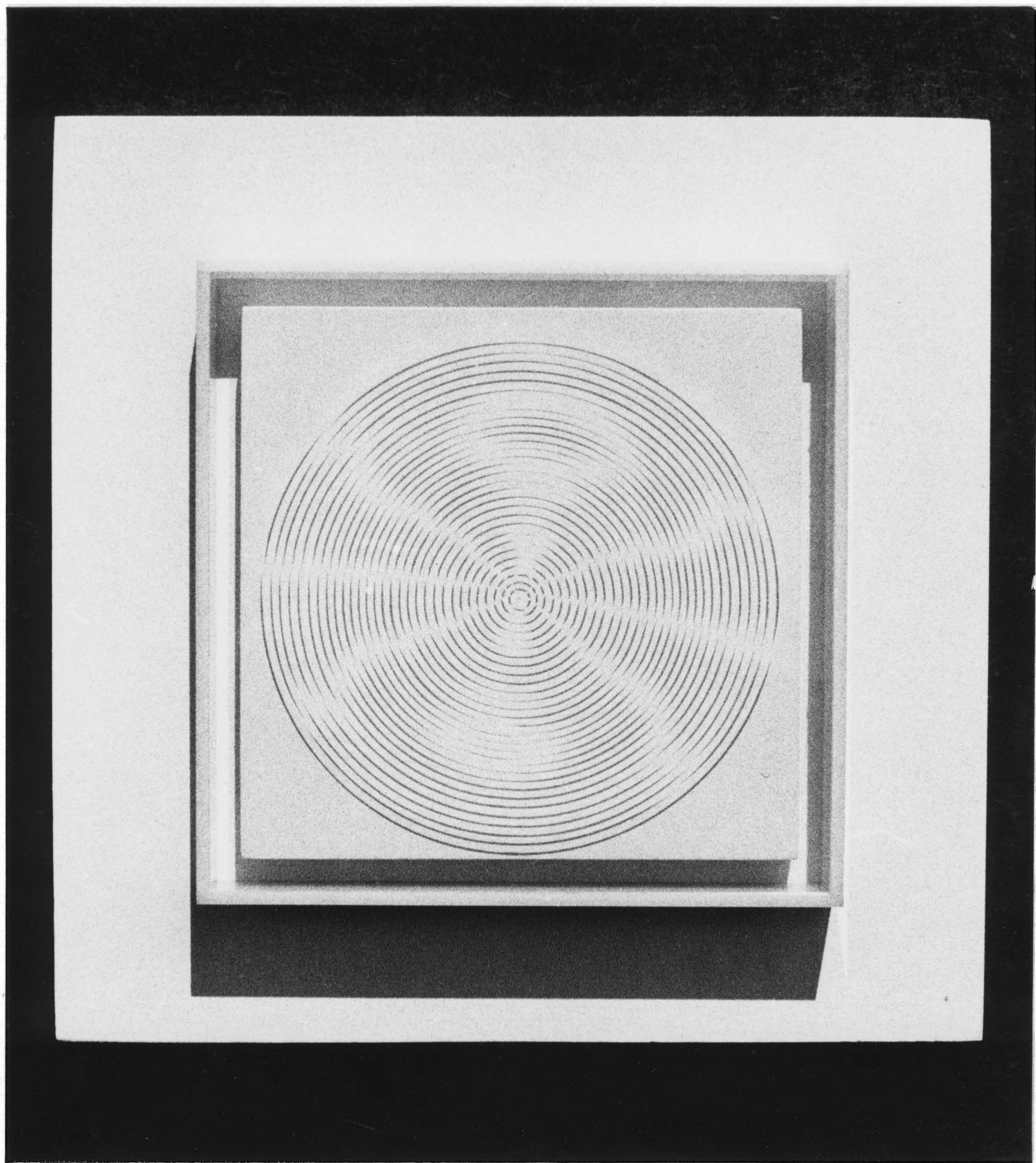


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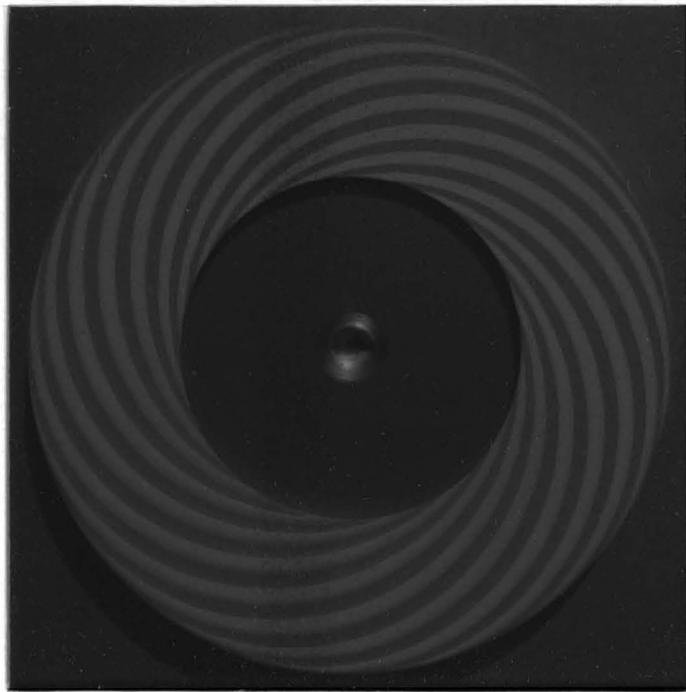
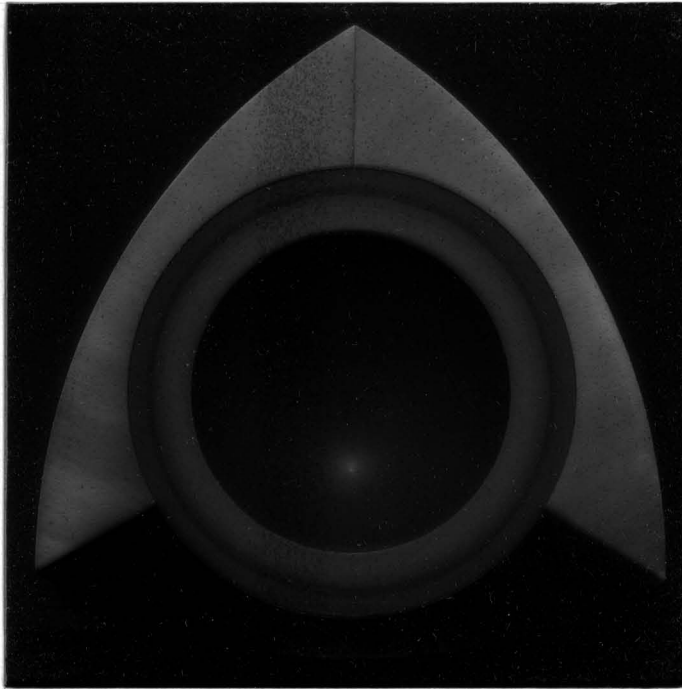
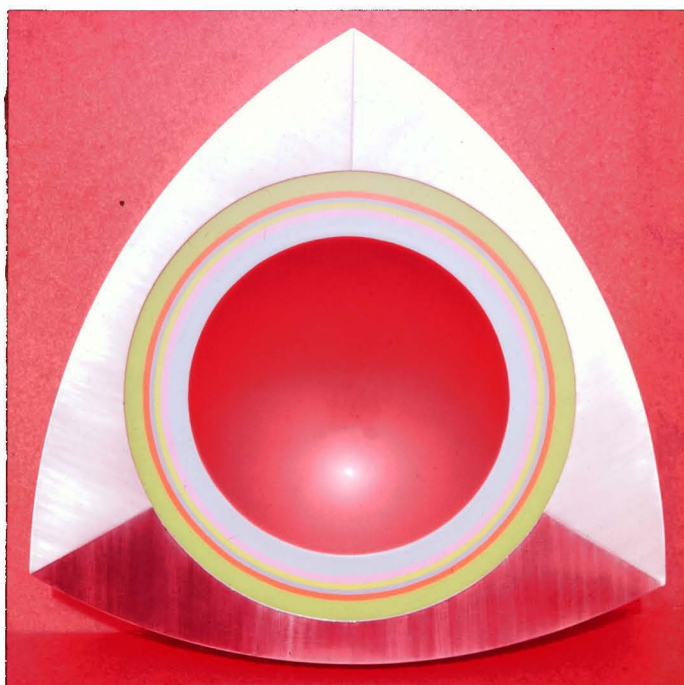






Plate 15





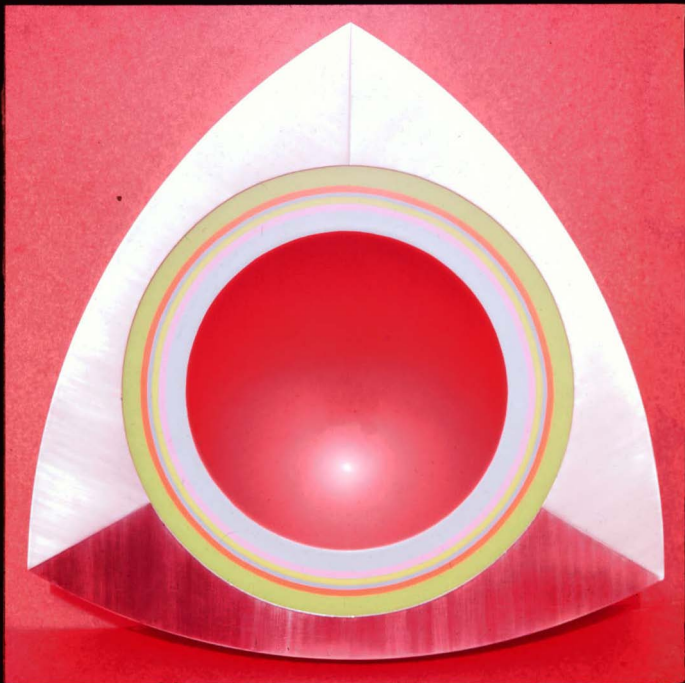
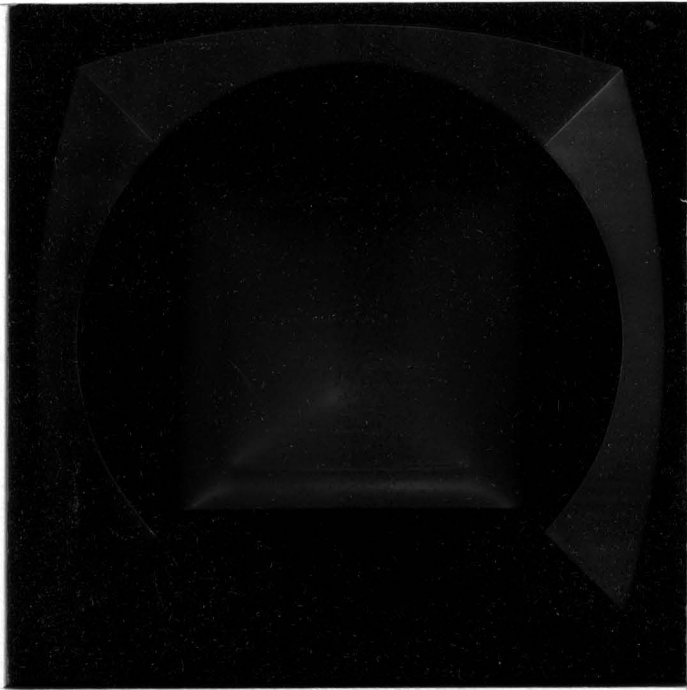
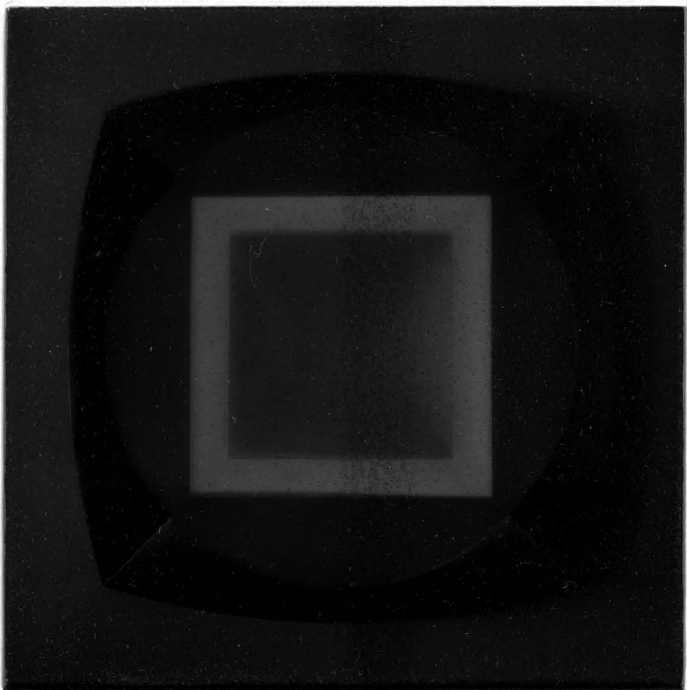


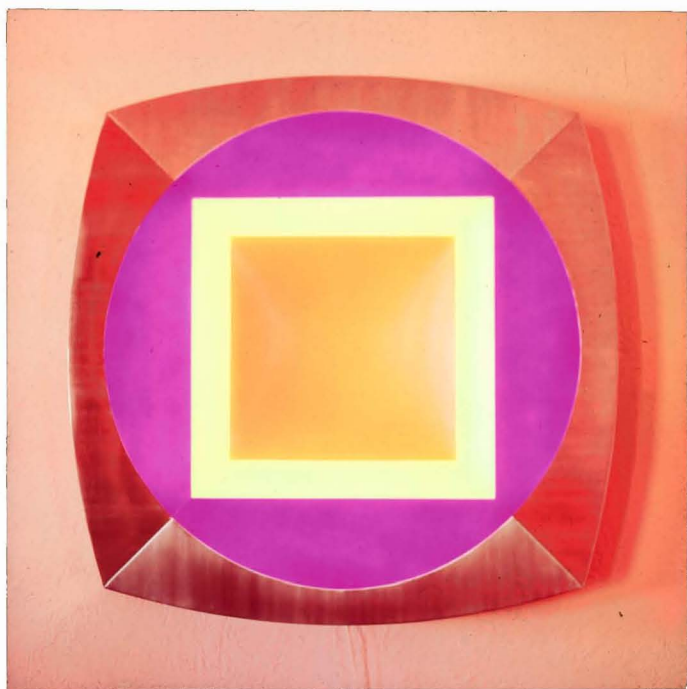
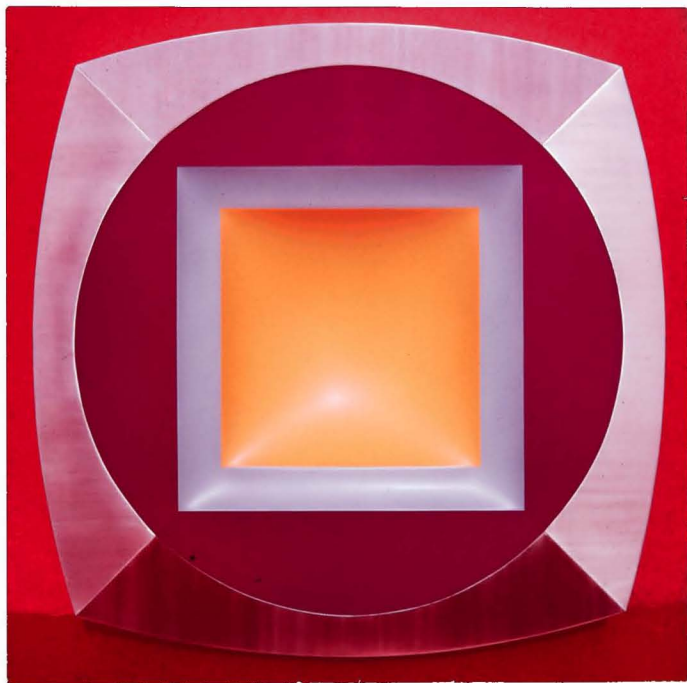
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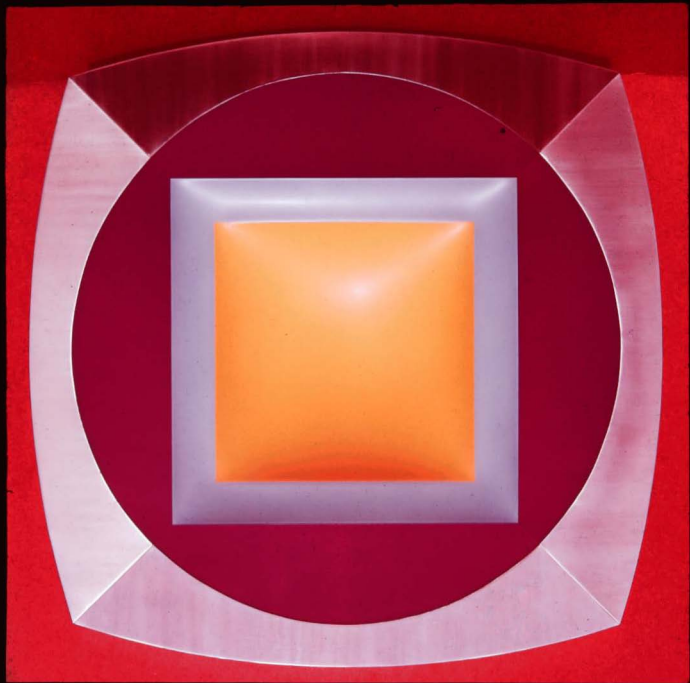


A



B





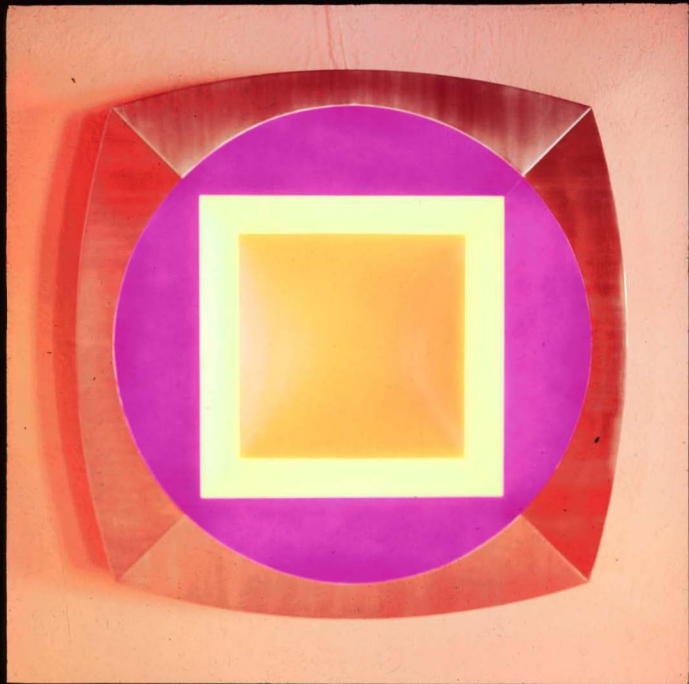
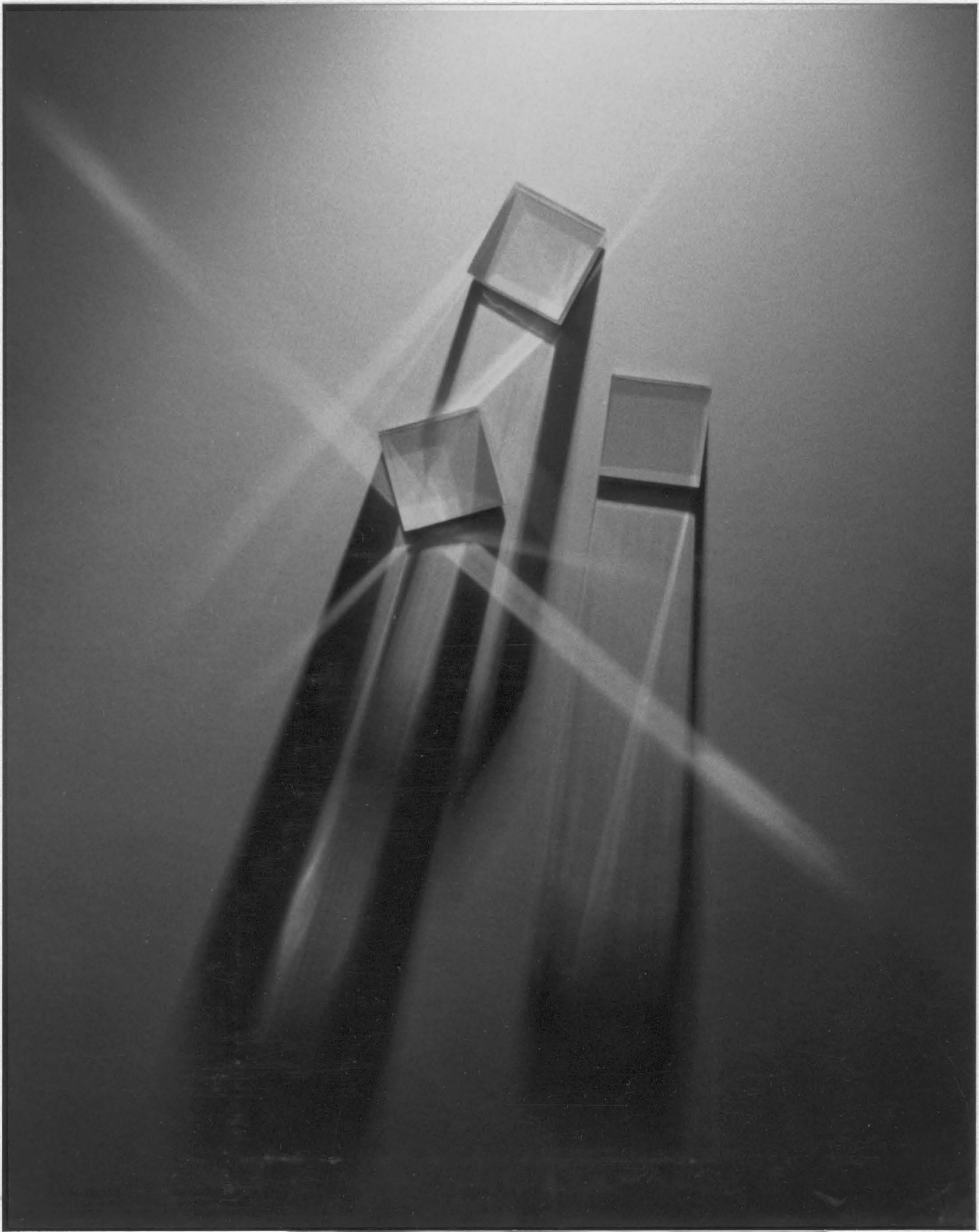


Plate 17



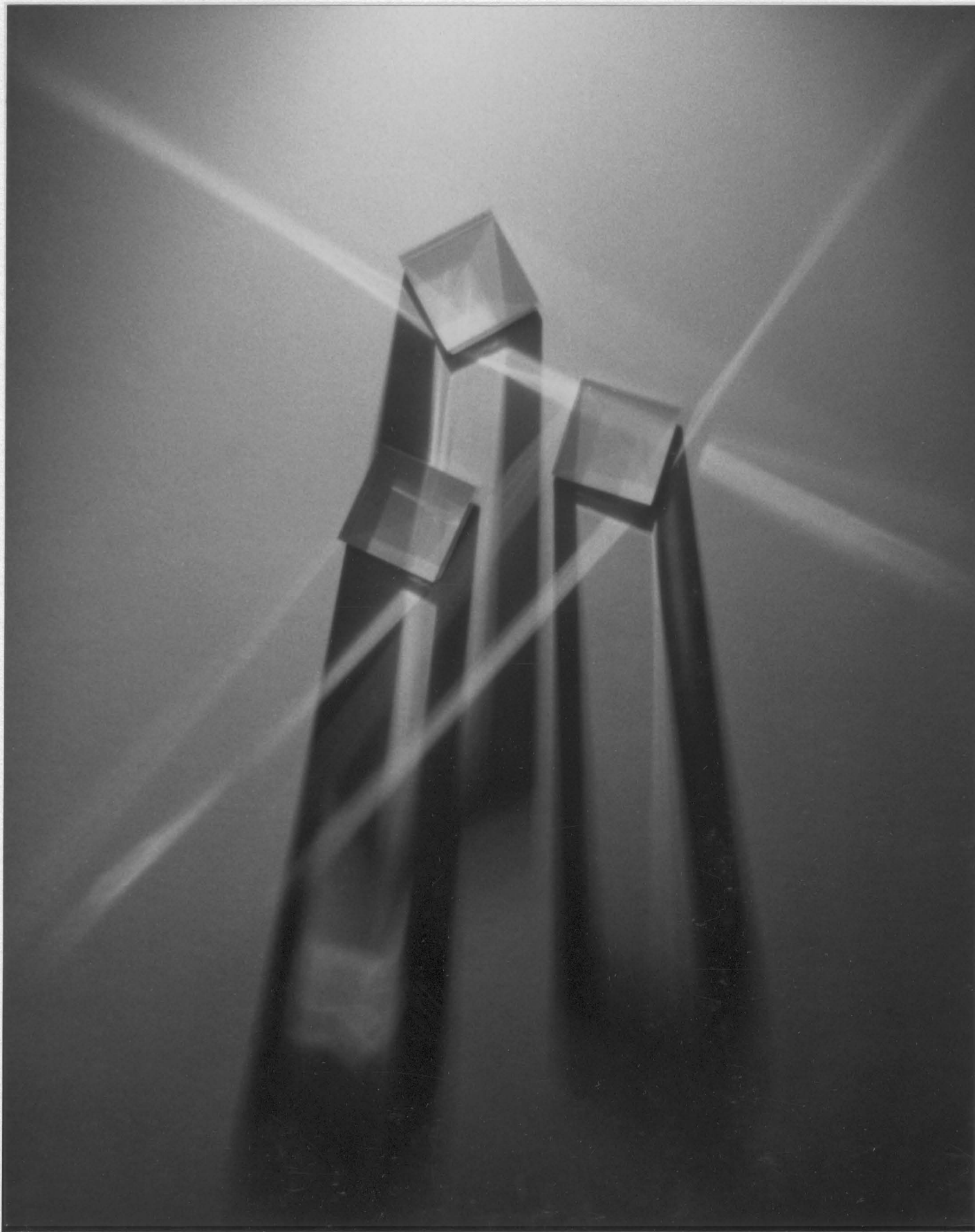


Plate 19



Plate 20

