THESIS

EVOLUTIONARY CYCLES OF LIGHT

Submitted by

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Department of Art

In partial fulfillment of the requirements

for the Degree of Master of Fine Art

Colorado State University

Fort Collins, Colorado

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Spring, 1982

WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR SUPERVISION BY LORAINE LUNDQUIST-ANDERSON, B.F.A. ENTITLED EVOLUTIONARY CYCLES OF LIGHT BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF MASTER OF FINE ART.

Committee on Graduate Work

Adviser

ABSTRACT OF THESIS

EVOLUTIONARY CYCLES OF LIGHT

The mysteries of reflected and refracted solar light phenomena integrated with geometry and the technology of the 20th century are the major focus of the work in this thesis. It is concerned with the metaphysical and personal aspects of universal cyclic solar light used in ancient ritual and medieval theology, integrated with the contemporary external-oriented and impersonal use of solar energy.

The objective was to explore ancient, medieval and contemporary differences regarding evolutionary cycles of solar light. For example, the Indians of Peru found order in the universe through observation of solar light cycles. Through veneration of the sun as god in personal internal-oriented ritual celebrating the beauty of light and giver of fertility and harvest, they explained their relationship to the cosmos. The meaning of the sun and its light manifest itself in the gold icons symbolic of the beauty of solar light.

Medieval humanity in the 12th and 13th centuries further explored the organization of state and theology in crystal and stone Gothic cathedrals. Opening the architecture to the sun with windows exemplary of the feudal state and Christian religion, romanesque shadows were banished from sombre interiors. The god-given sun as divine light, shining through crystal combined with stone exemplified the medieval spirit of bright and dark, fierce passion and stillness, life and death.

During the 20th century, scientists, astronomers and physicists gathered solar light for energy purposes without regard for its splendor and beauty, while natural light cycles integrated with art were ignored during post-medieval times until late 20th century. Based on the perception of light, Dewain Valentine, Larry Bell, James Turrell, Nancy Holt and Eric Orr have explored the content of light with sculptural form beginning with the 1970's.

The sculptures in this thesis bring together the inherent order, harmony and intellect of geometric shape with the purity of solar light, presenting stability in a 20th century world of daily violence, economic crises and finite energy sources. Via a concentration of solar energy in reflected and refracted images from plexiglass planes onto receptive surfaces in sculptural form, it is a search for the origin of personal energies. On another level, the works ask the viewer to examine her/his own source of strength and appreciation. Perhaps inquiry of their consciousness will lead them to a discovery of a new relationship to the universe and a world beyond time and space.

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ACKNOWLEDGEMENTS

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Further appreciation is expressed to The Development Group, Kennedy Center Office Campus, Denver, Colorado and the City of Fort Collins for their monetary contribution to complete the sculpture Sequential Rays and Solstice.

The assistance provided by Wayne Anderson, Kim Eisner and Penny Frazier in the construction of the Kennedy Center sculptures, was generous.

DEDICATION

The sculptures in this thesis are dedicated to my dear family and the very special friends who have allowed me to be free to express my personality. The piece, "Solar Star" is dedicated to my mom, who is not here to share this experience with me.

Without you, this could not have been accomplished.

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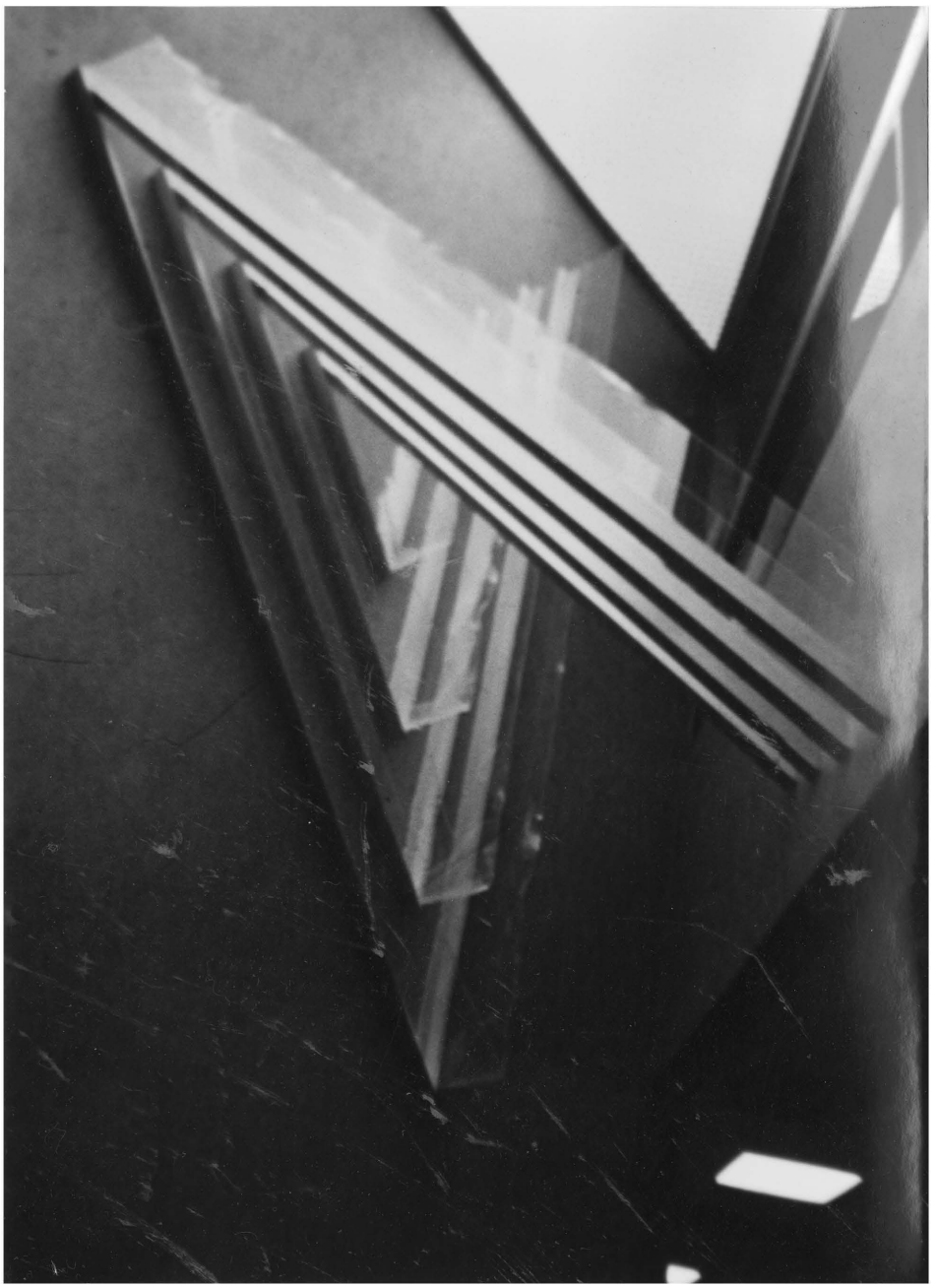

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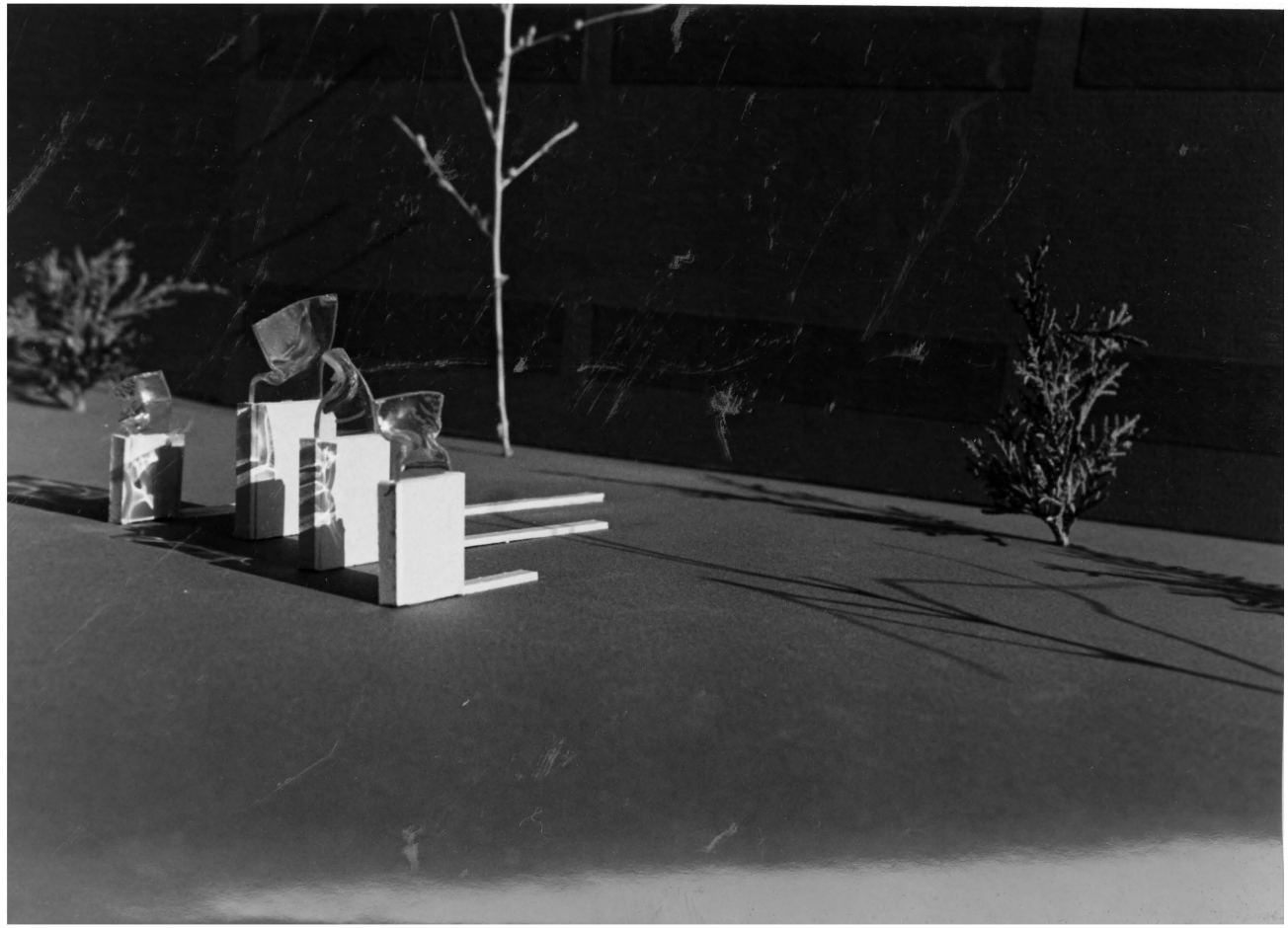

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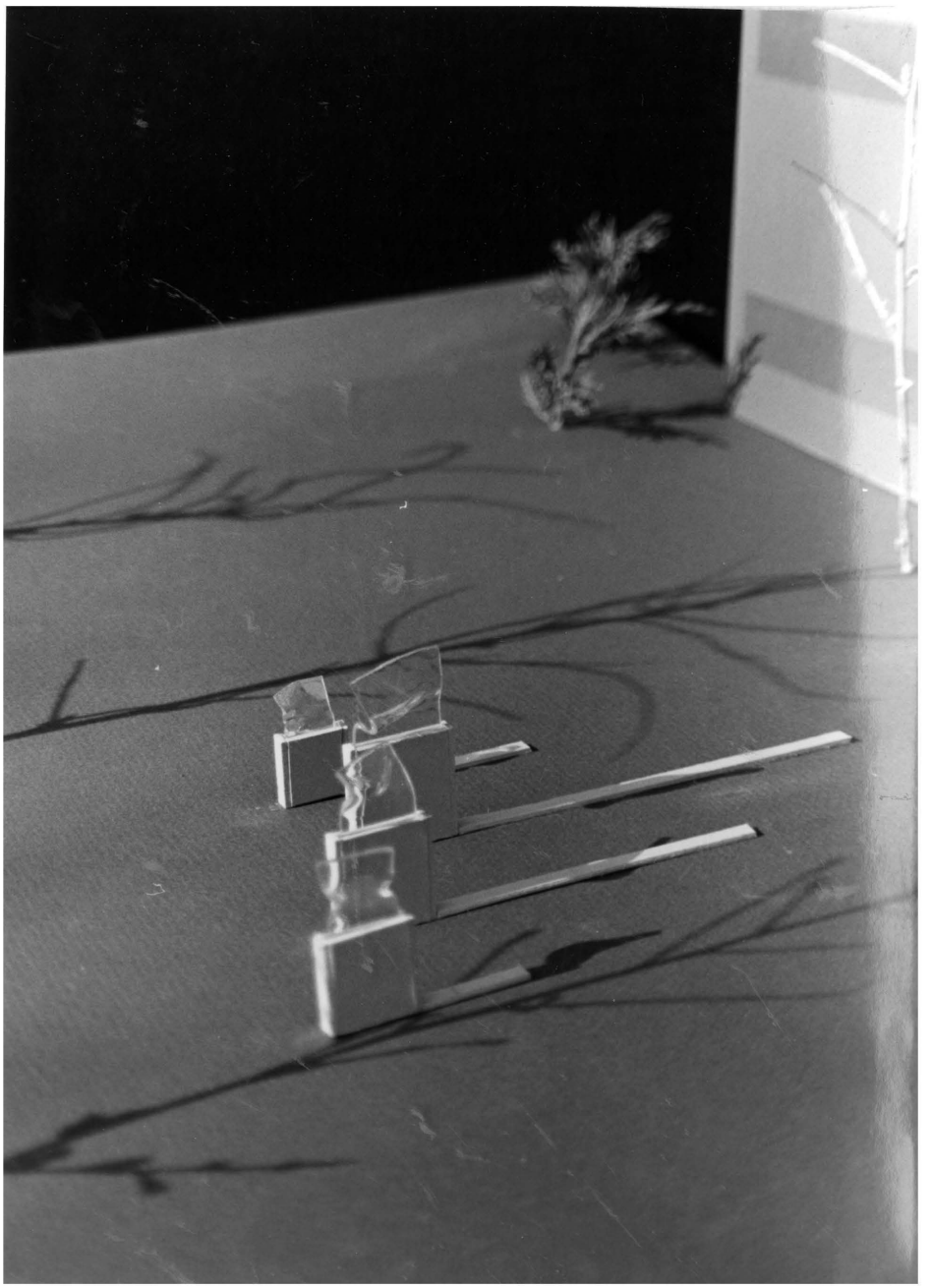

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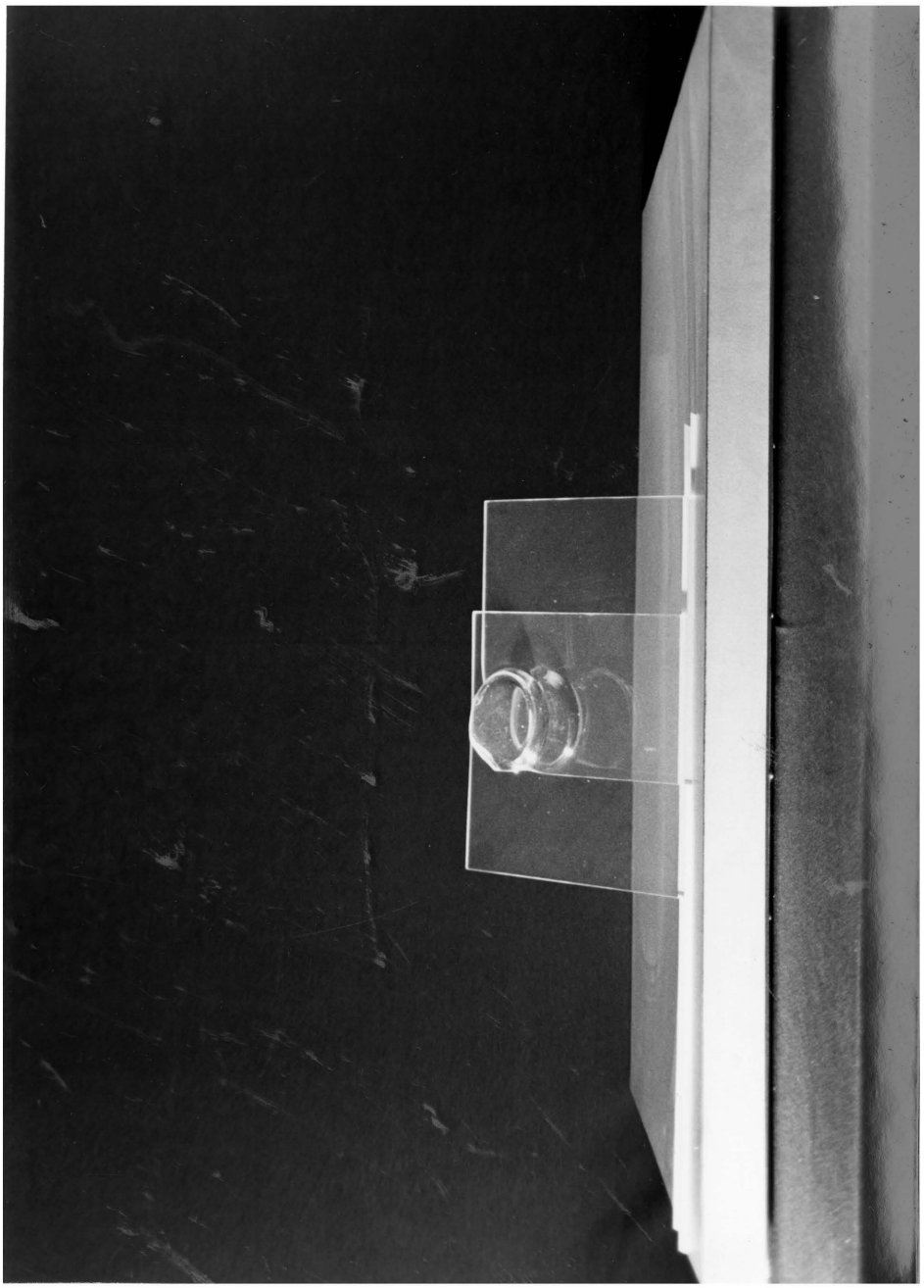

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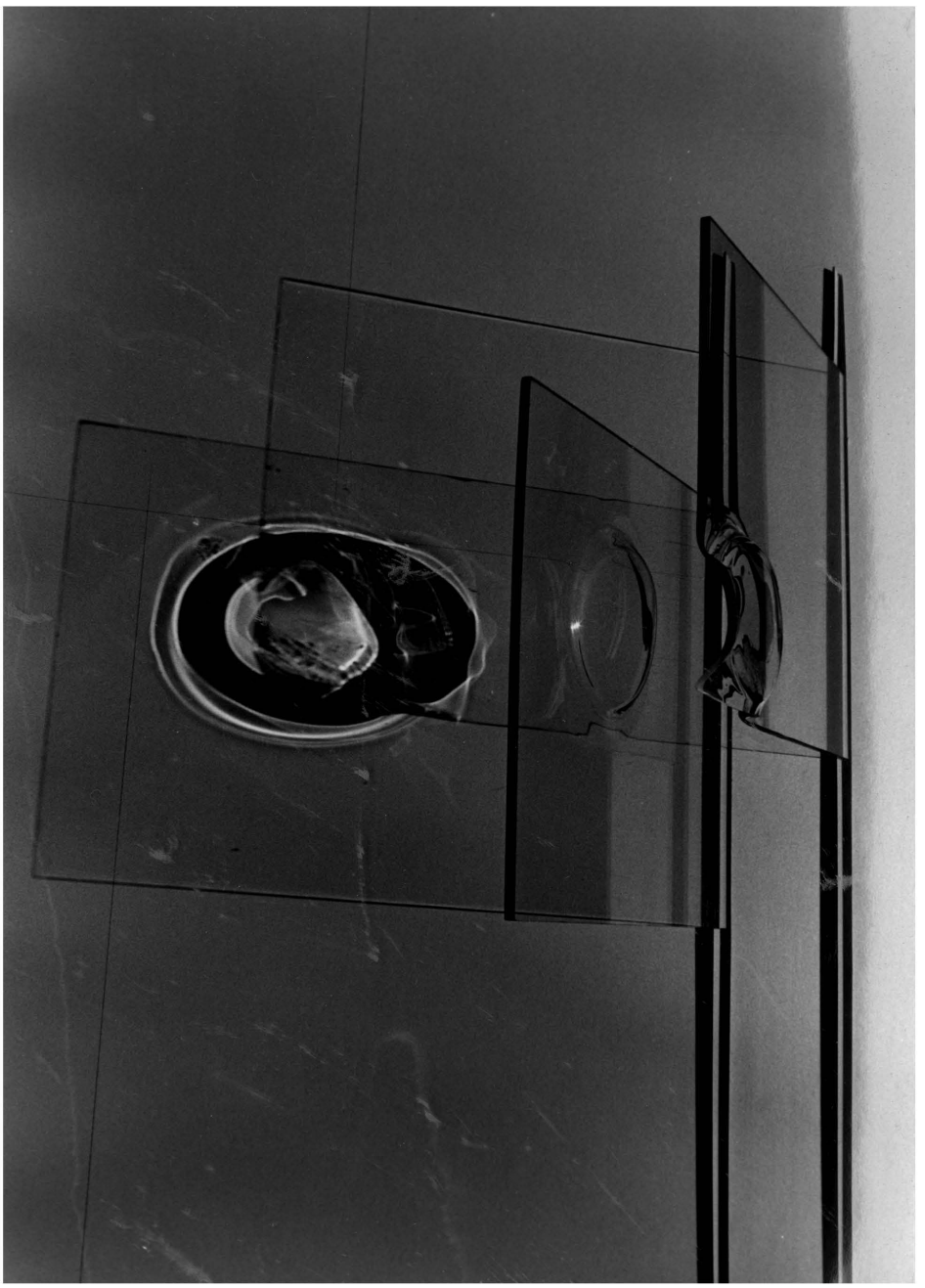

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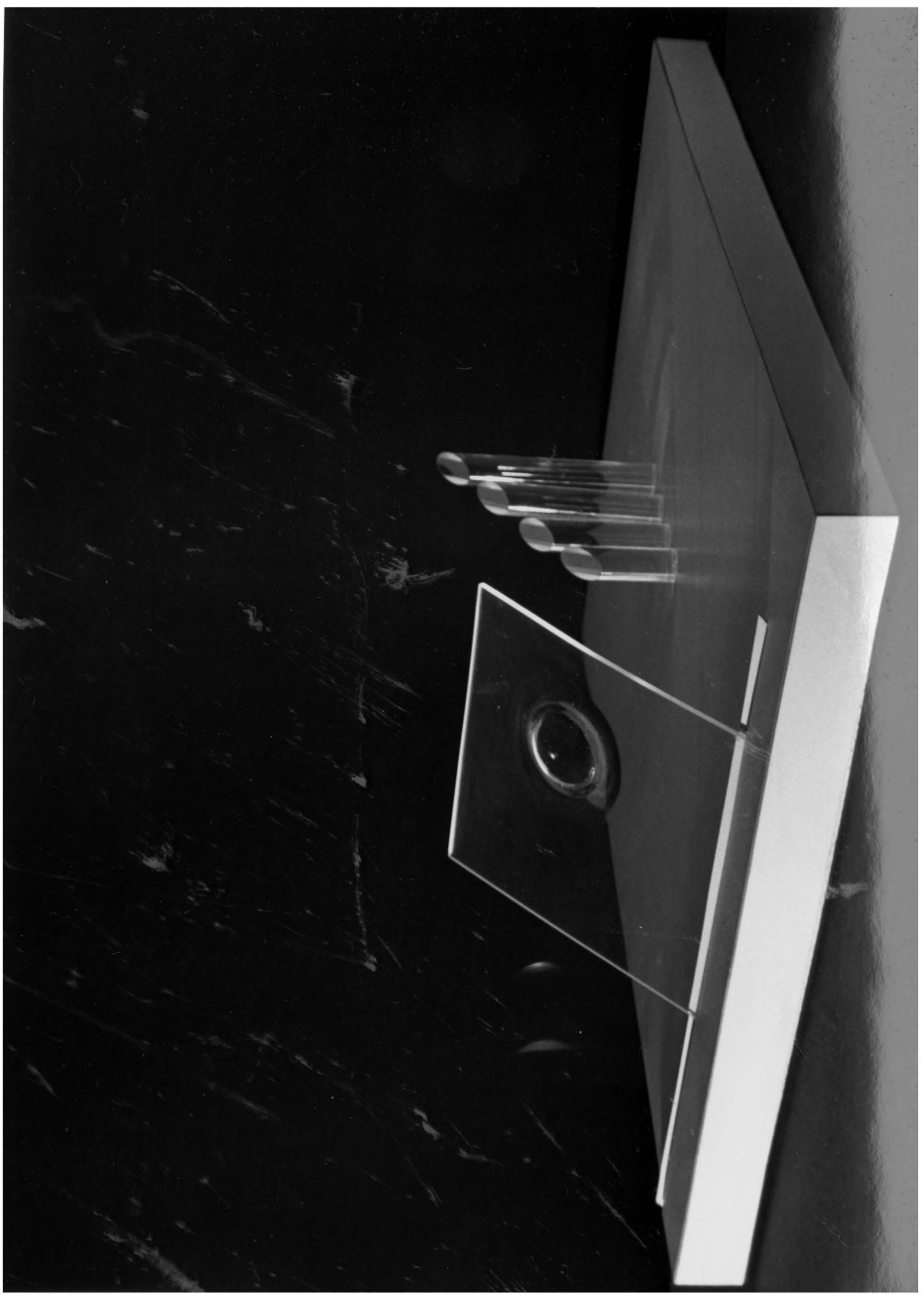

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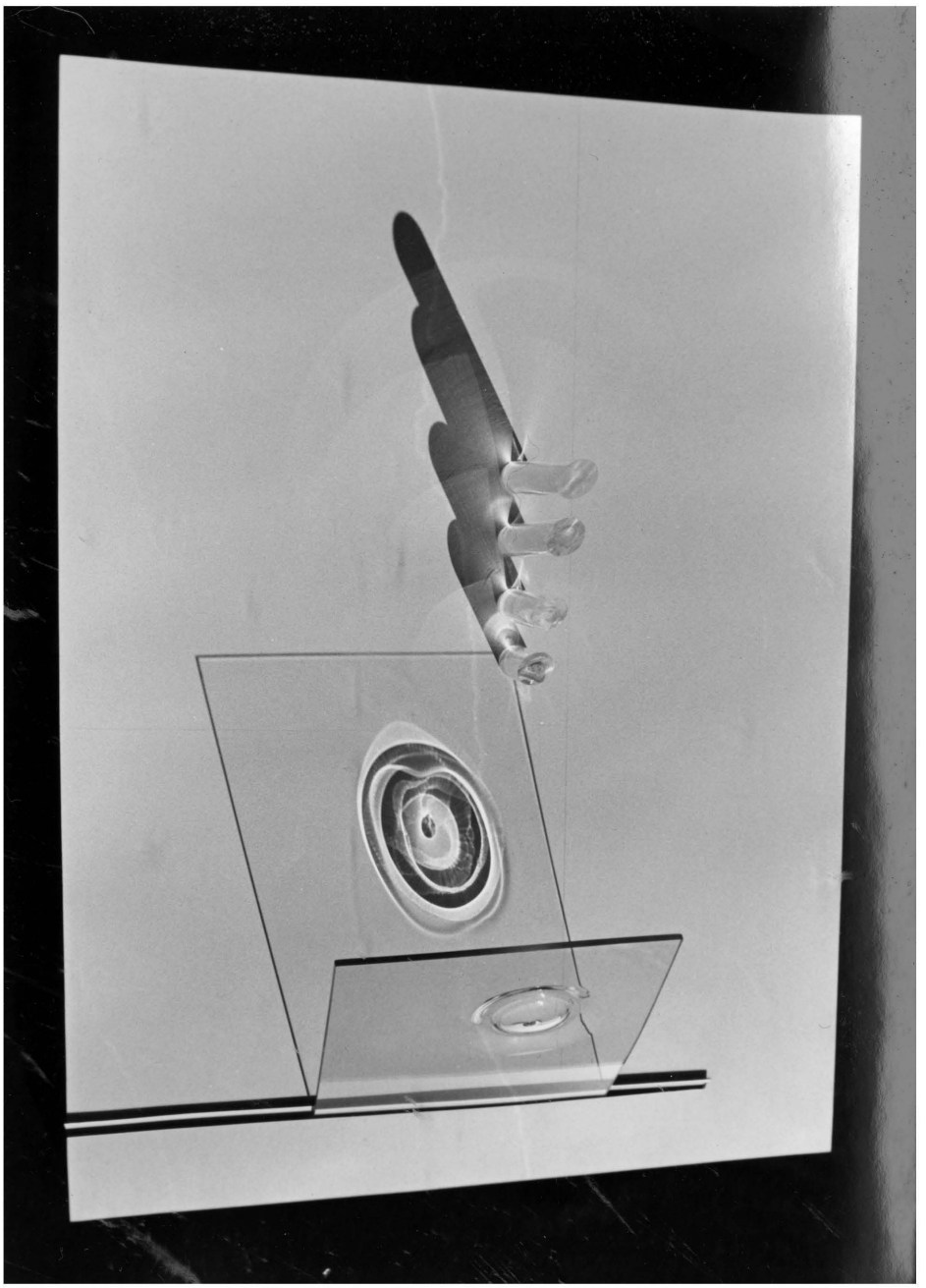

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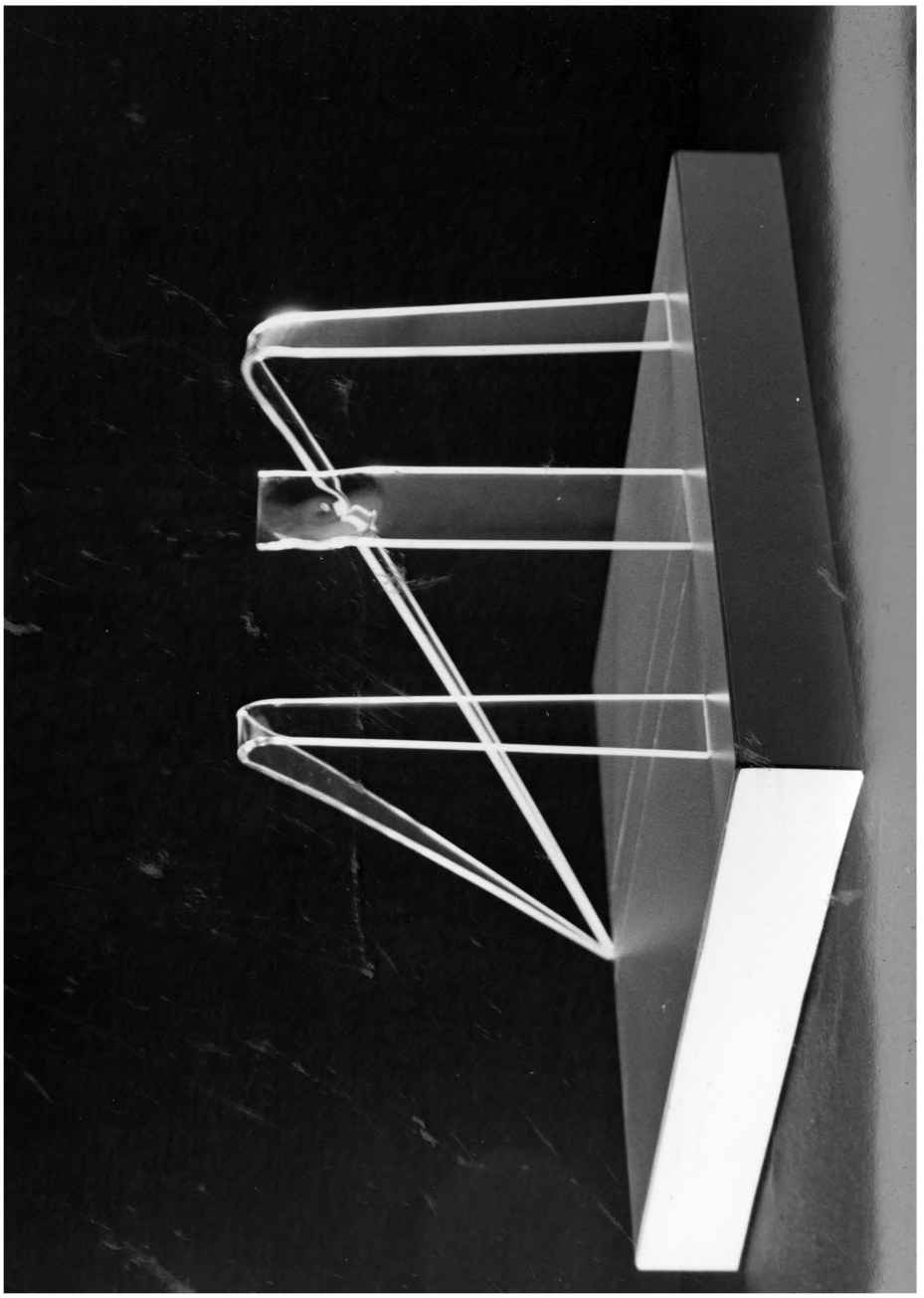

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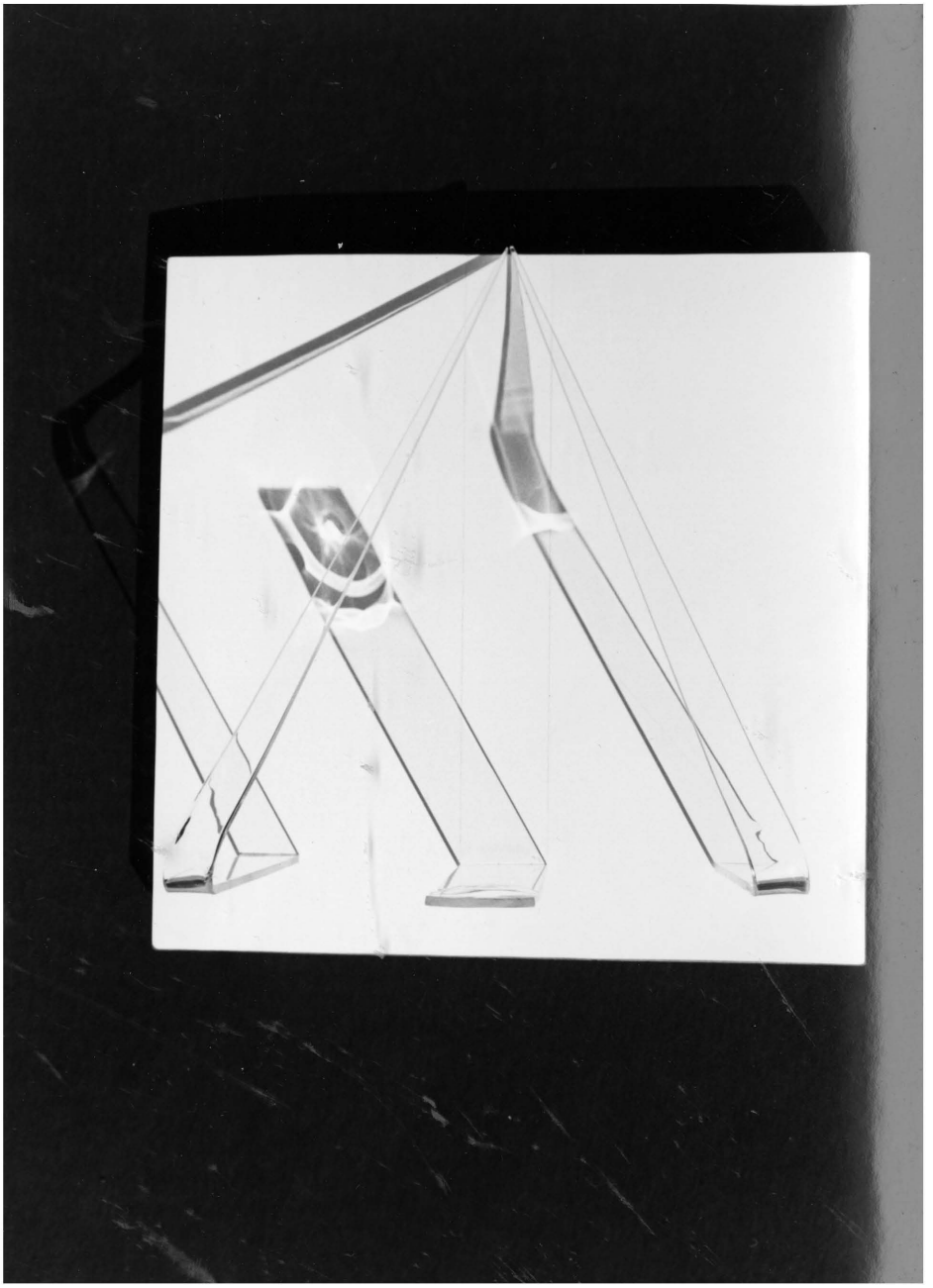

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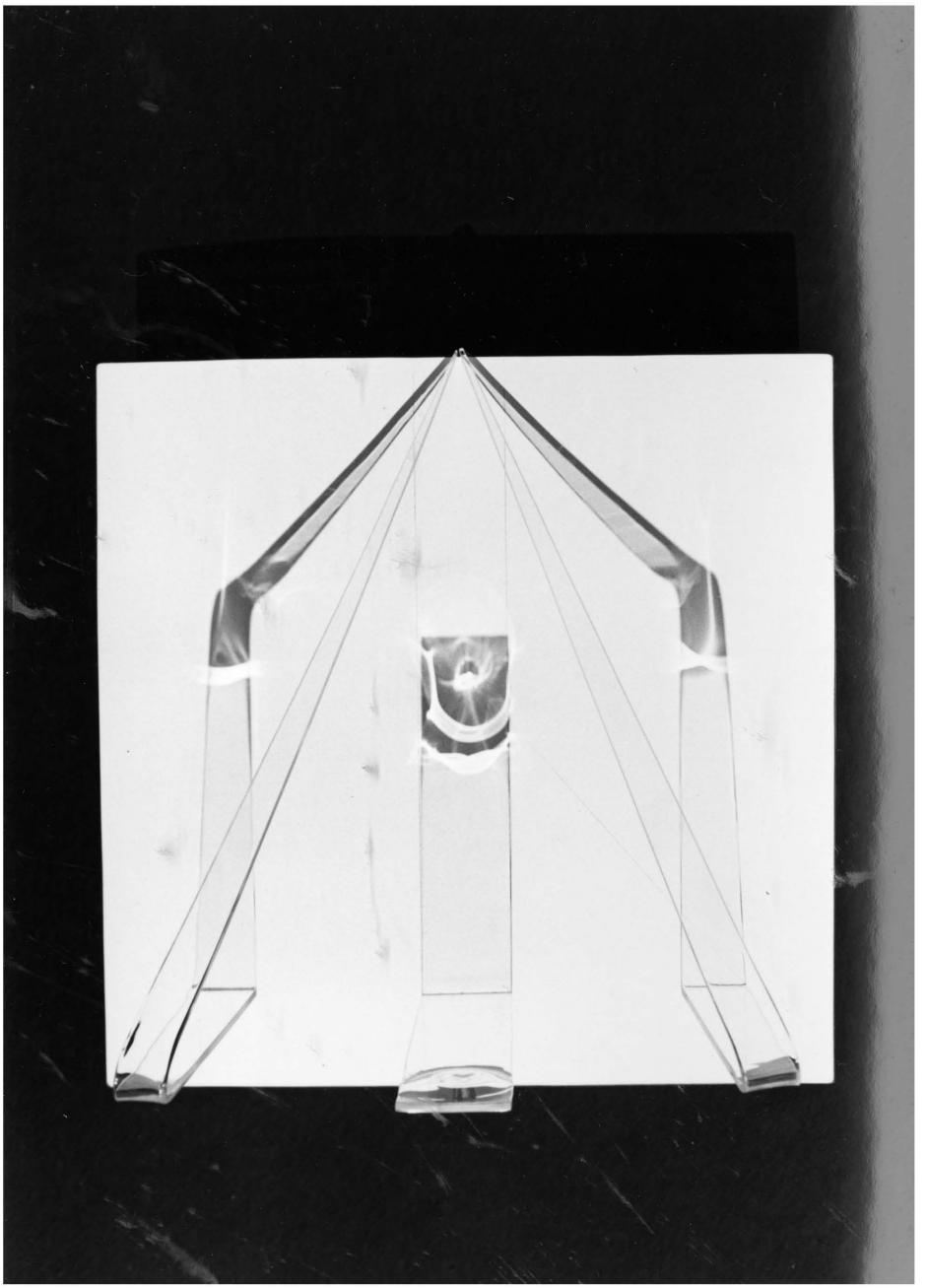

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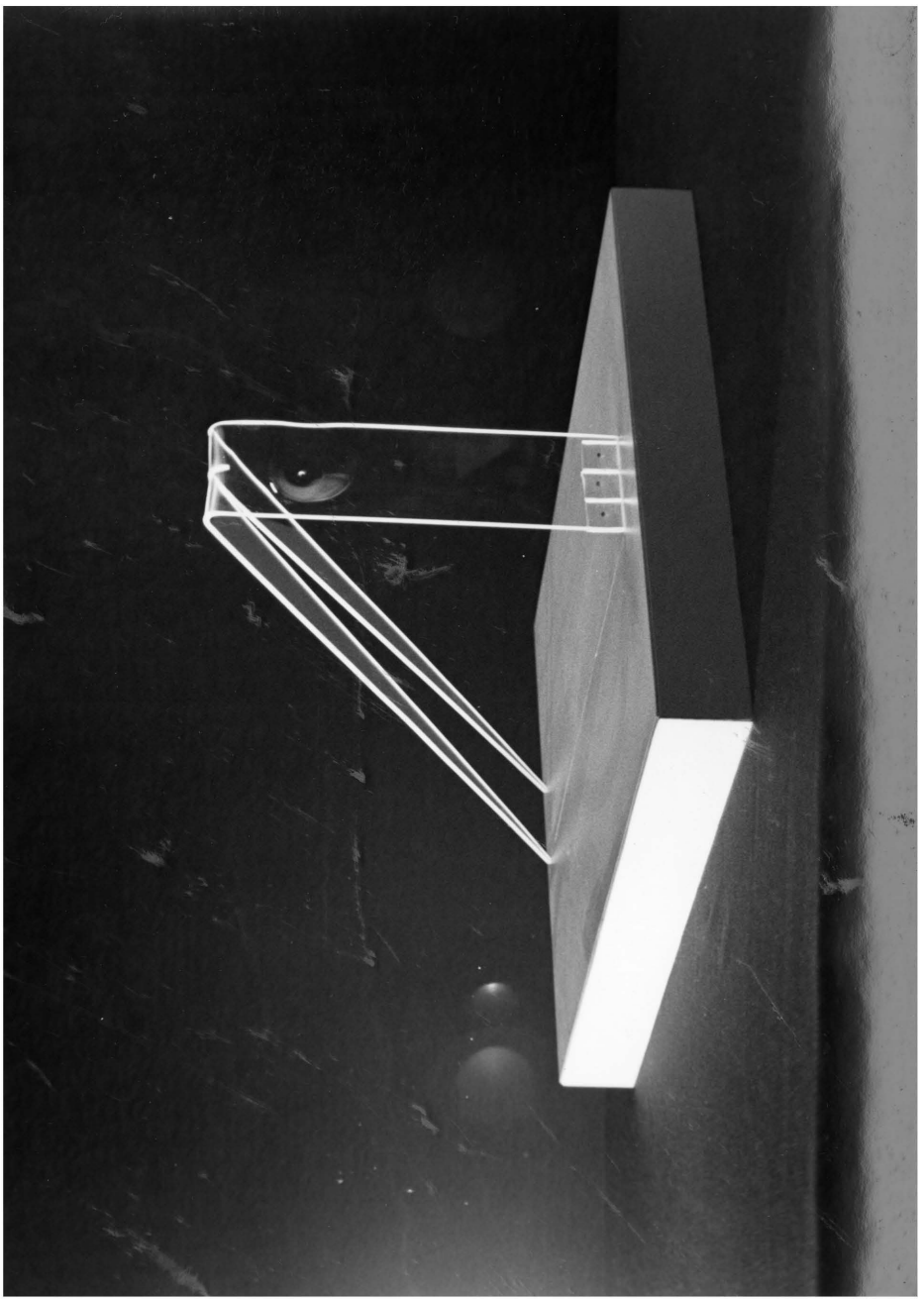

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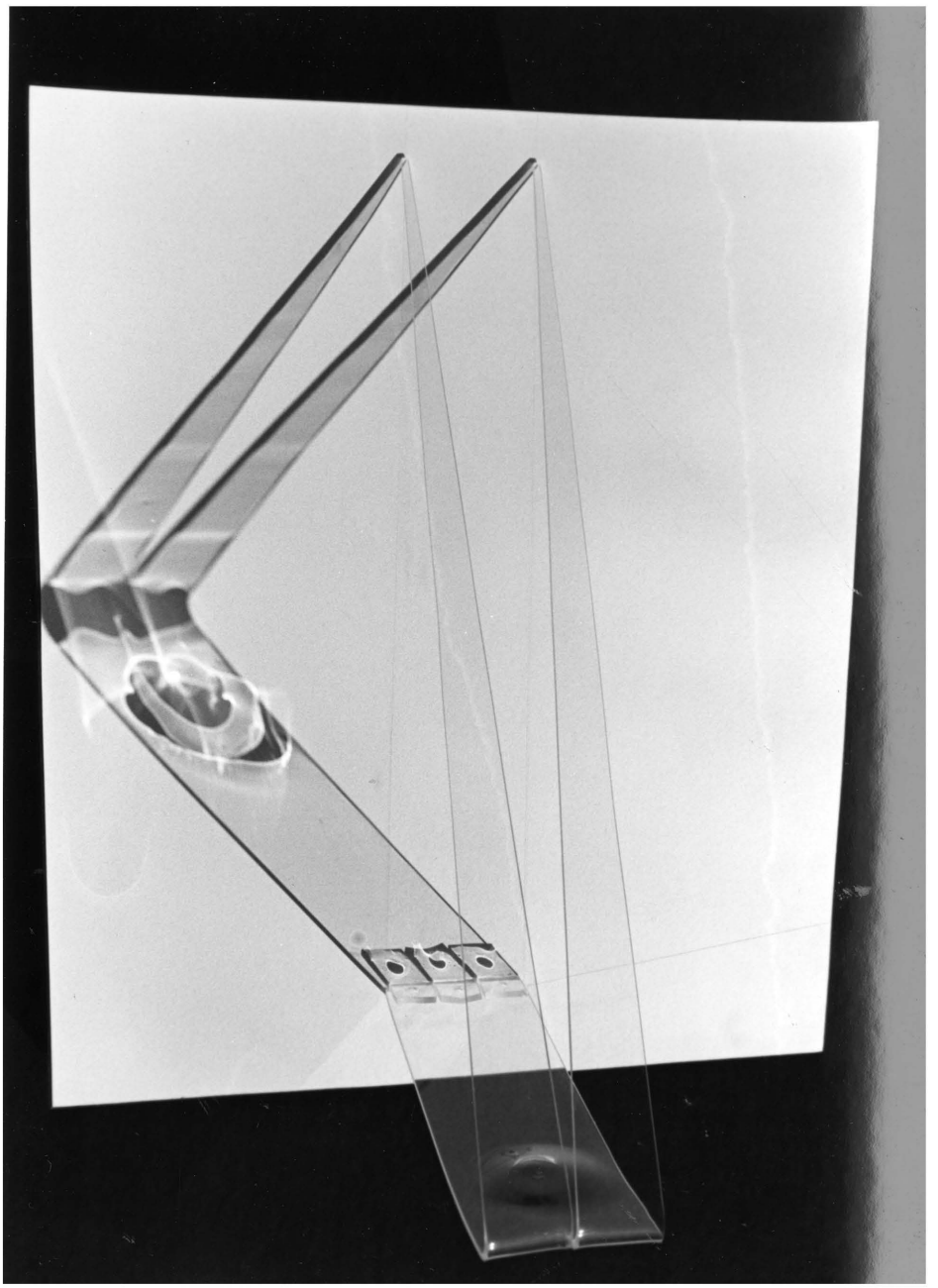

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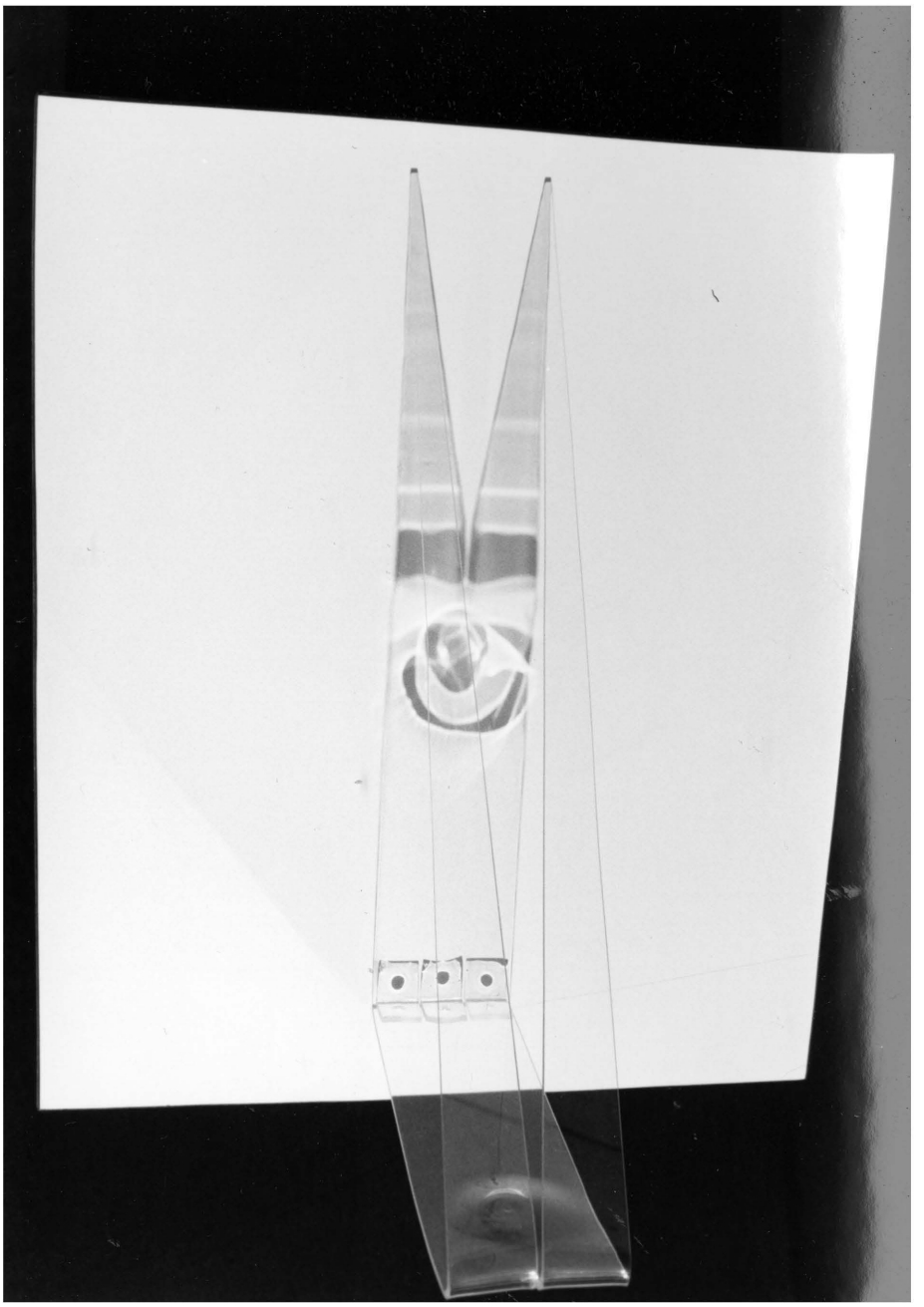

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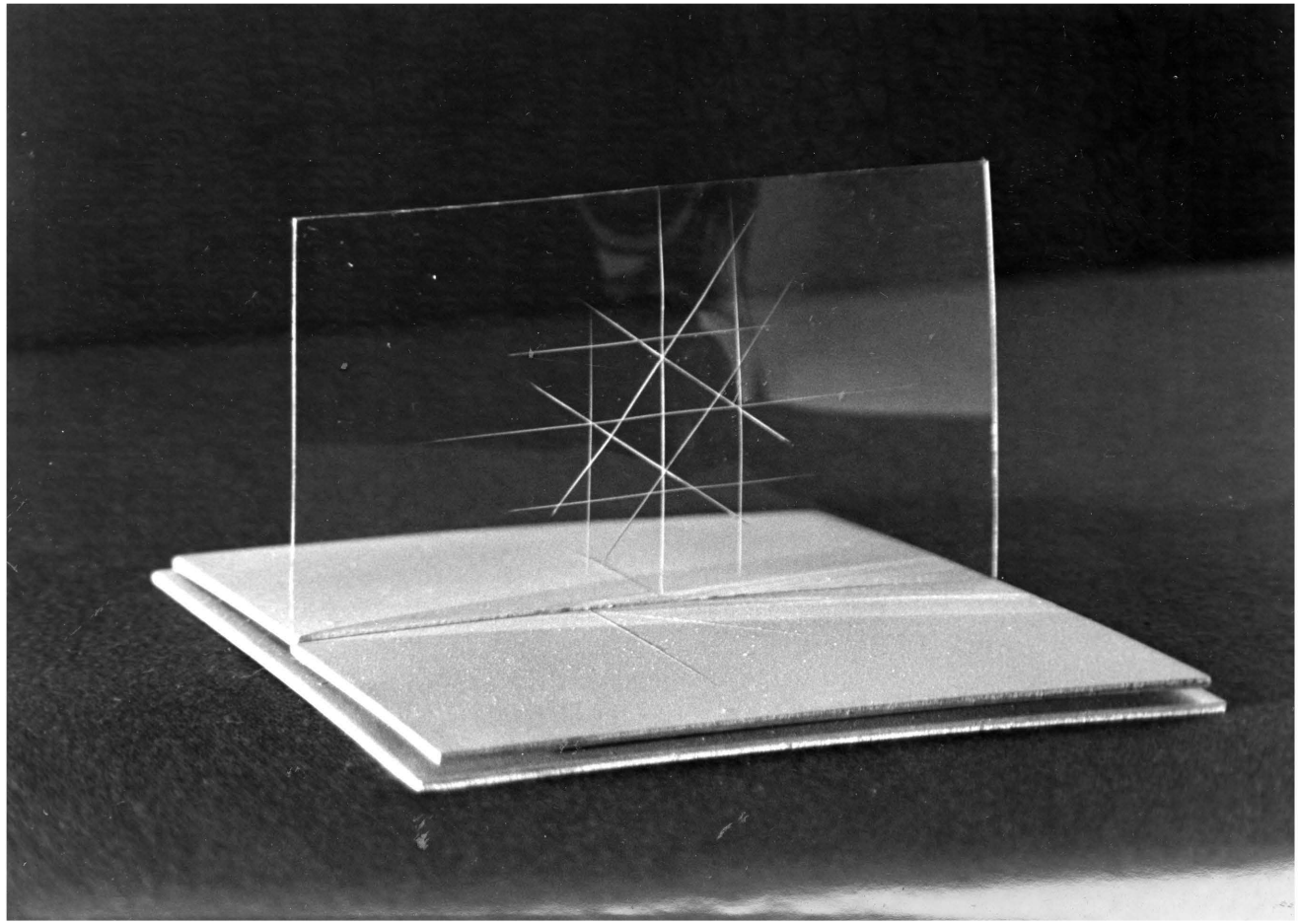

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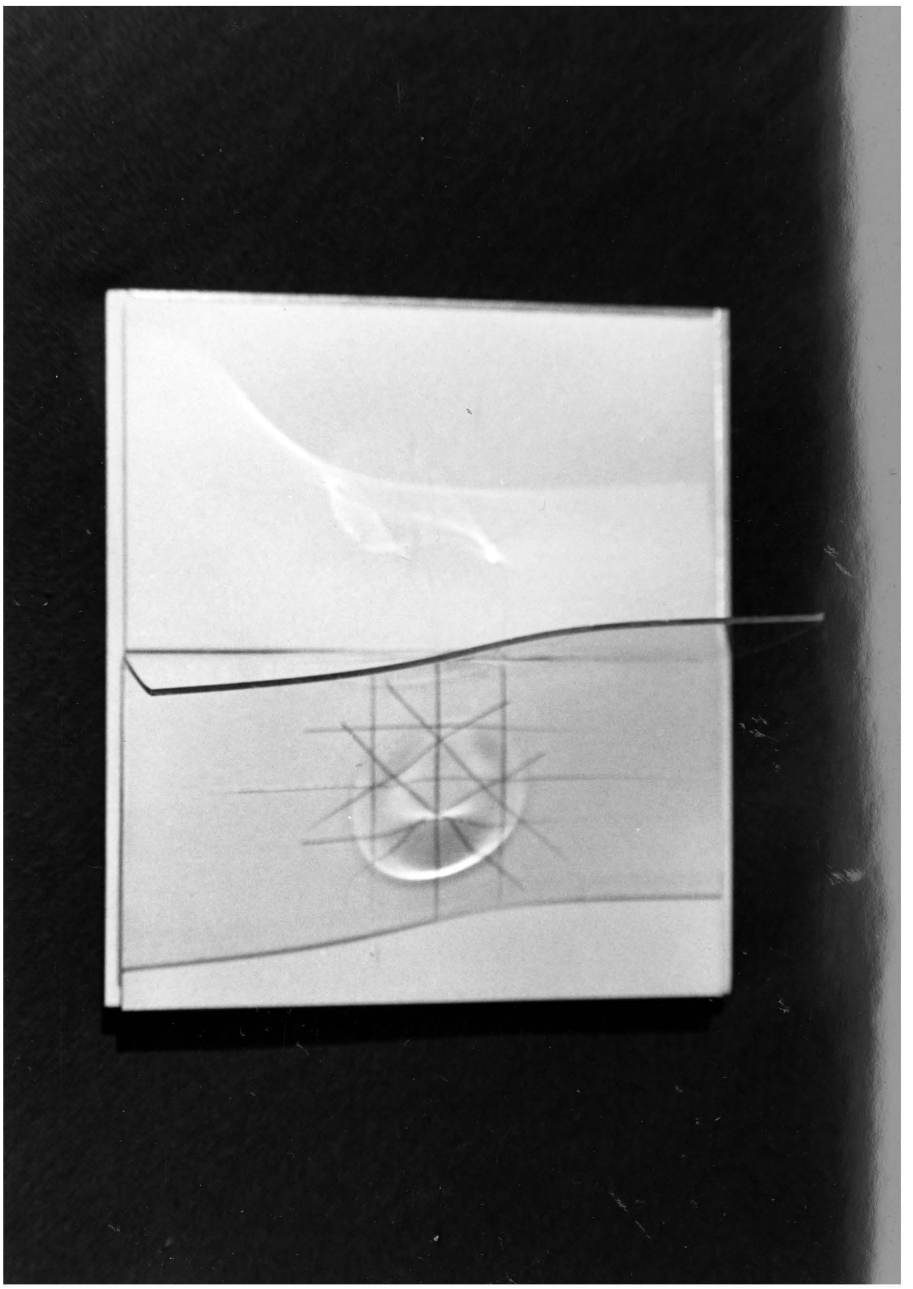

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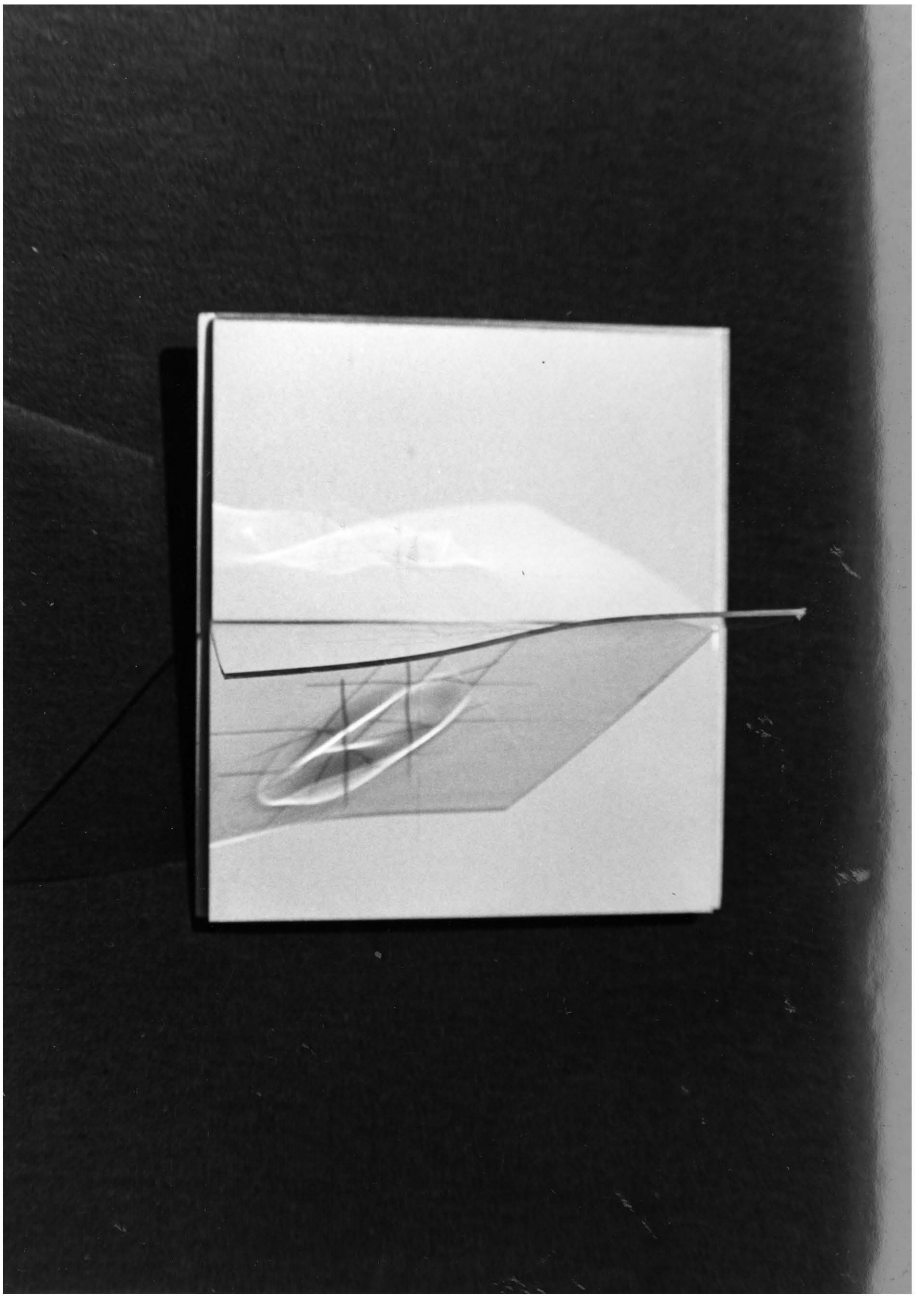

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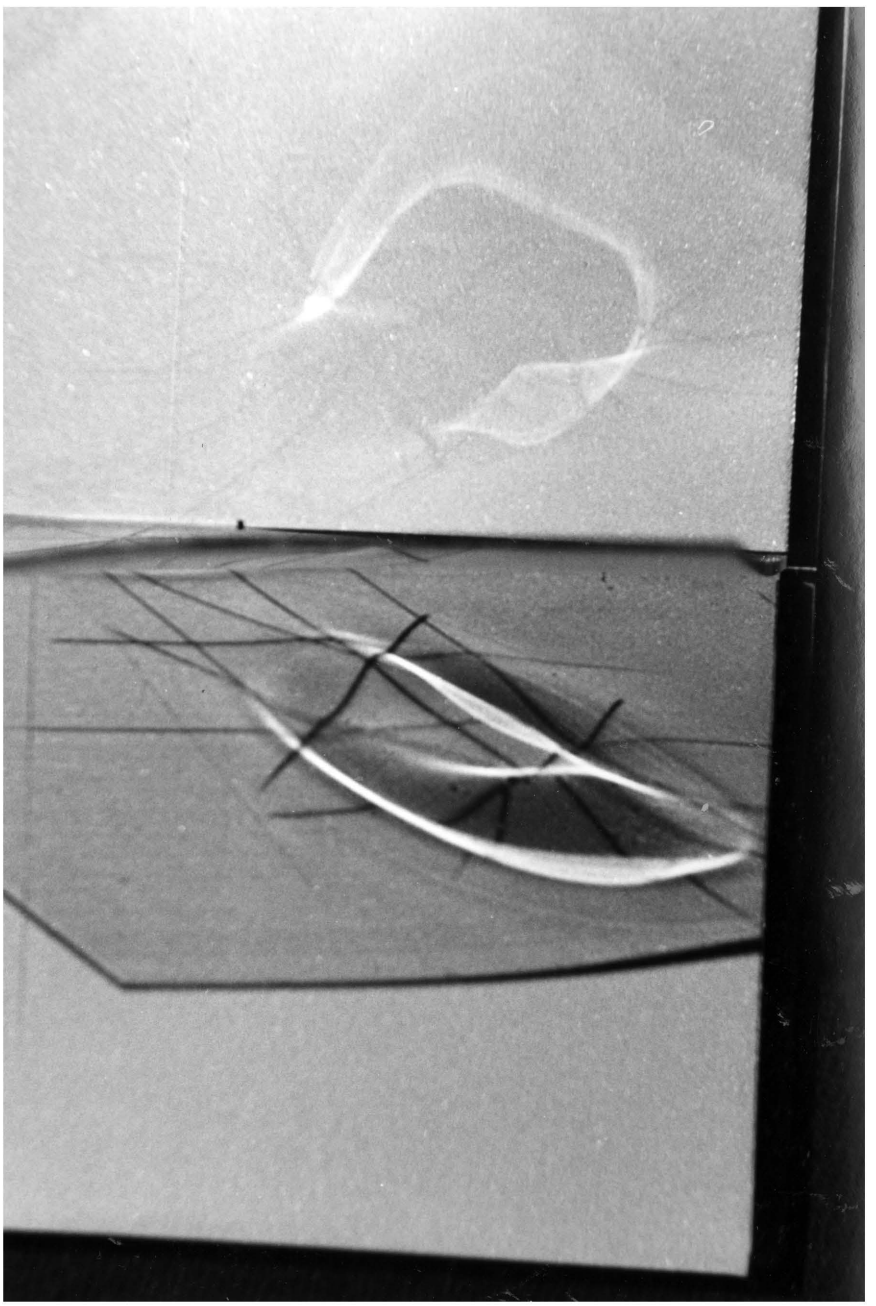

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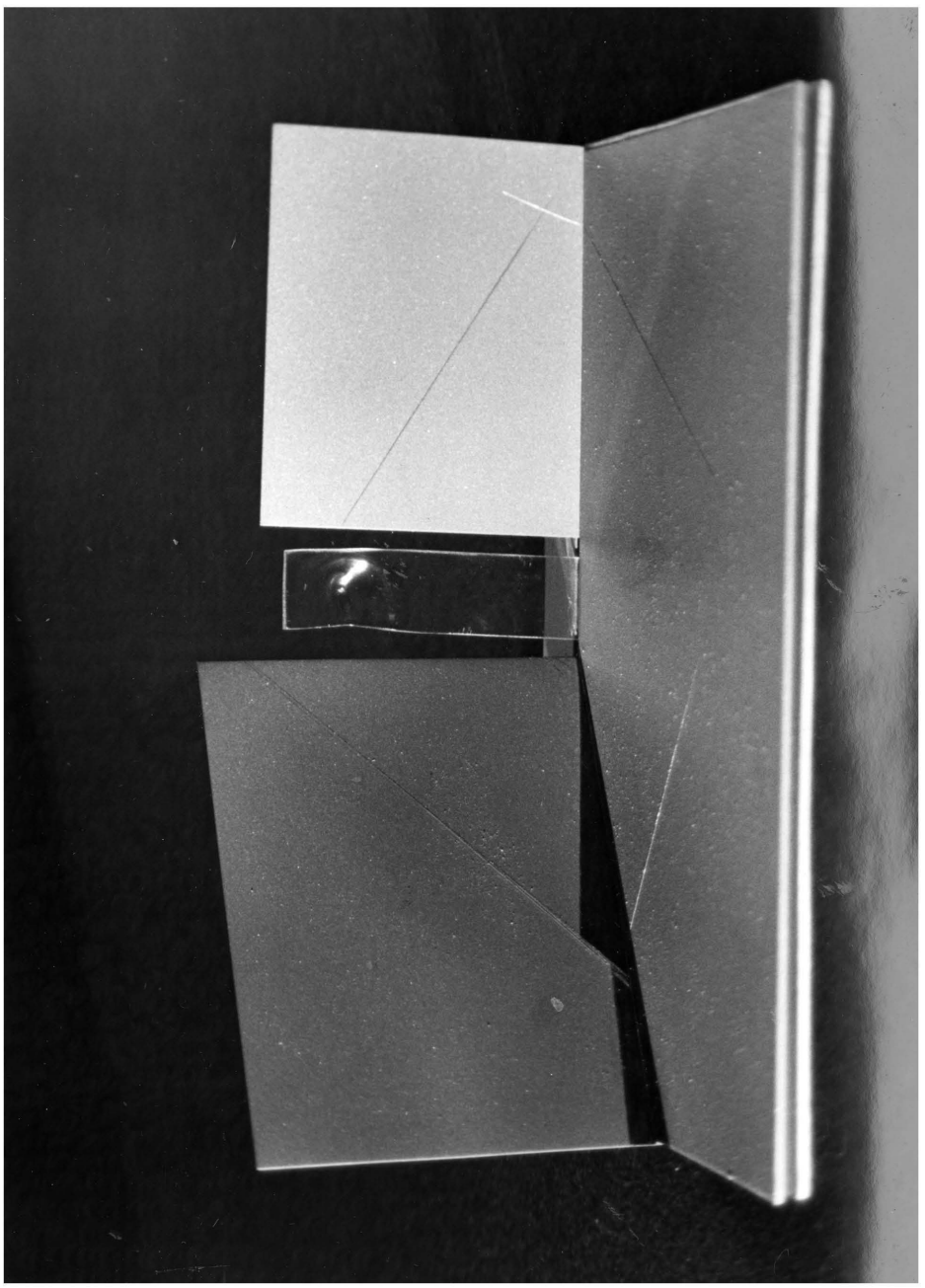

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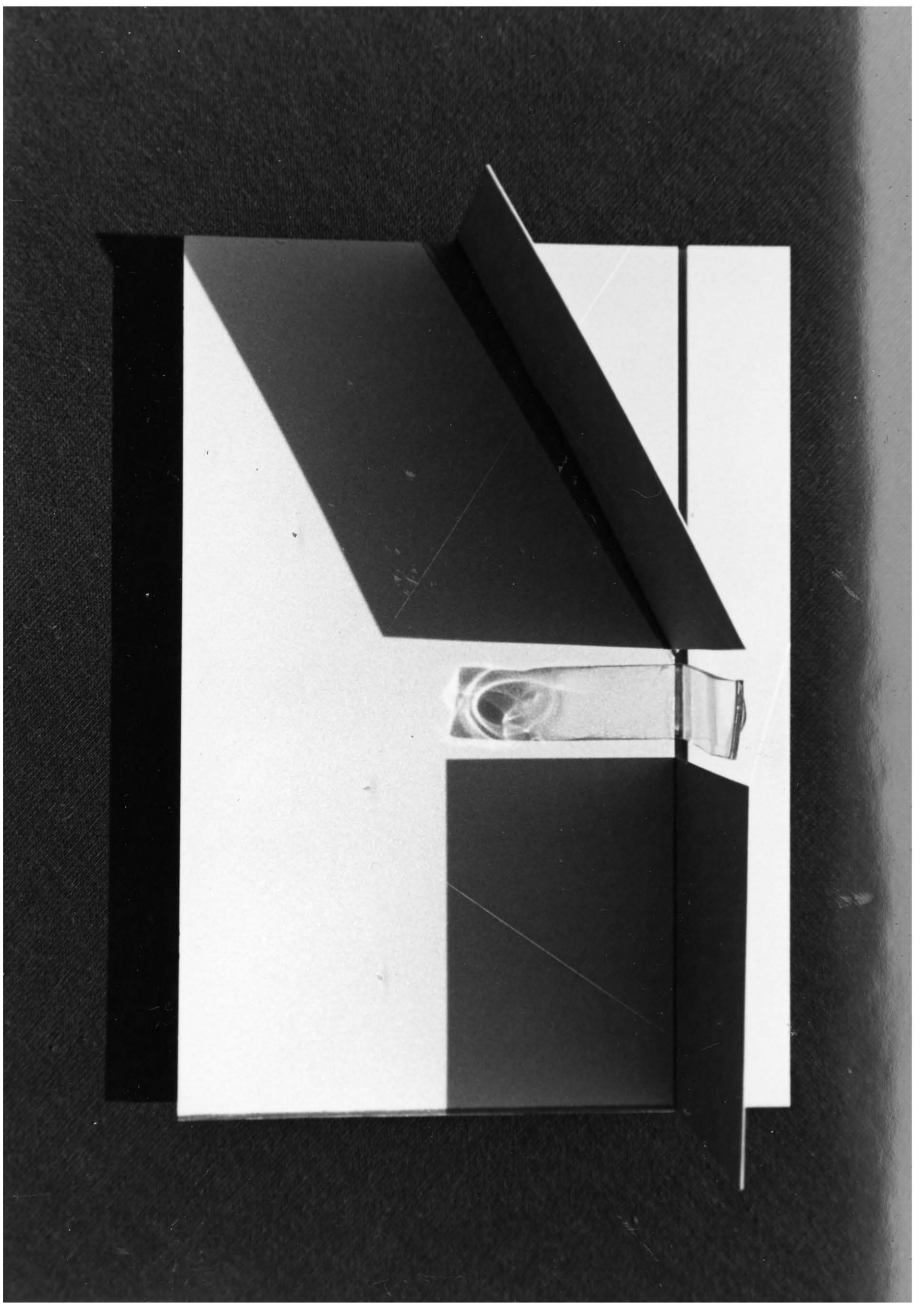

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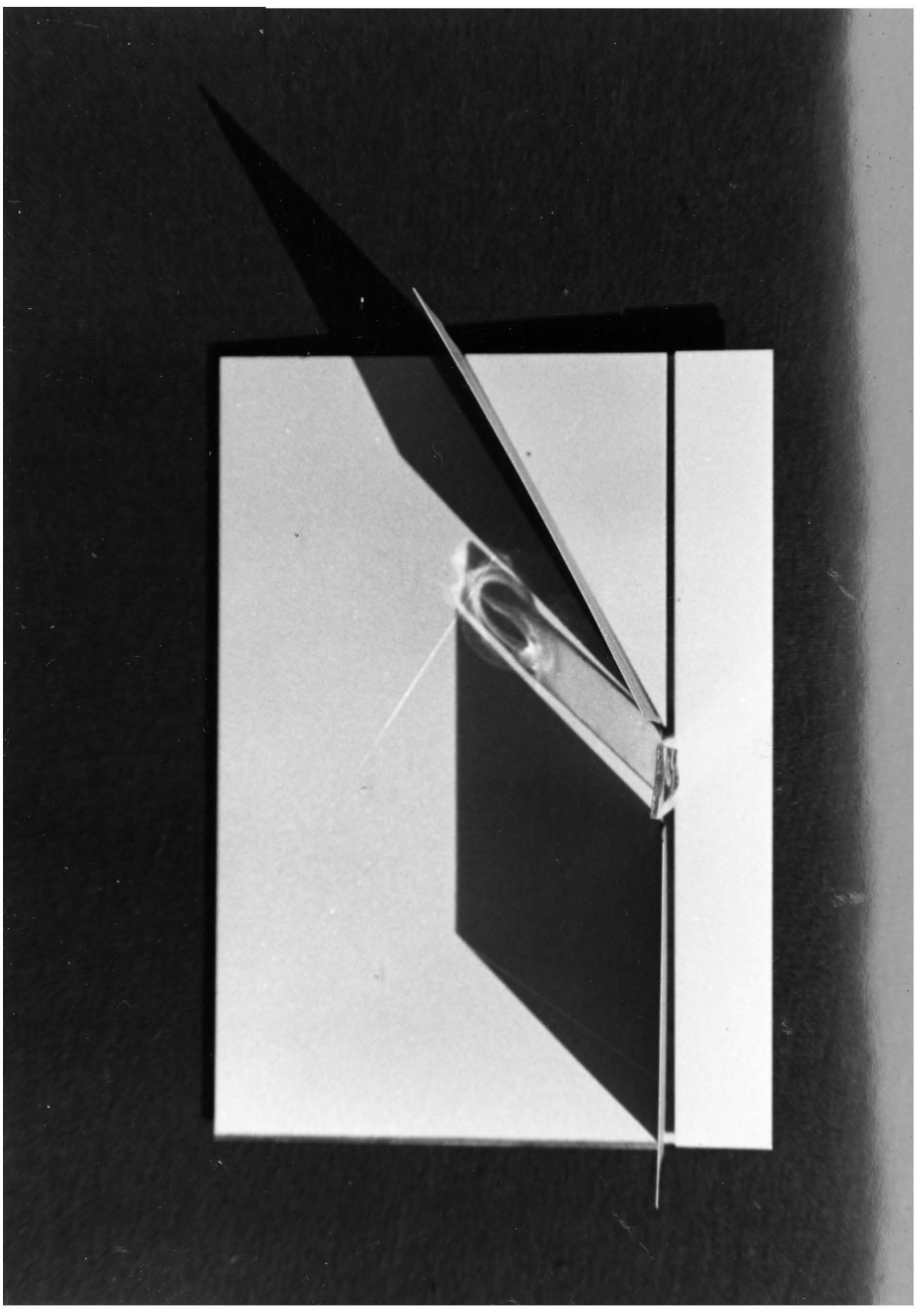

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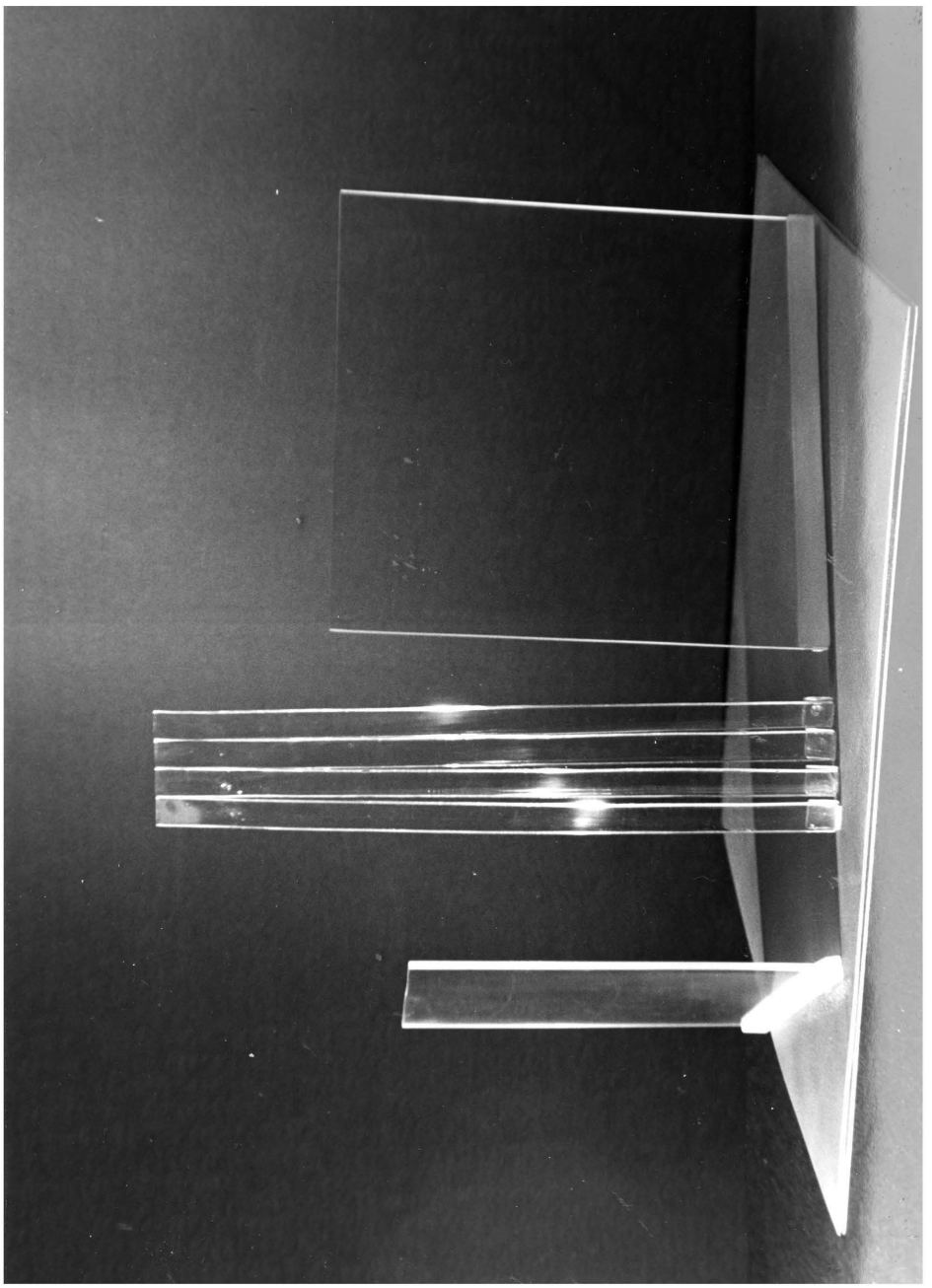

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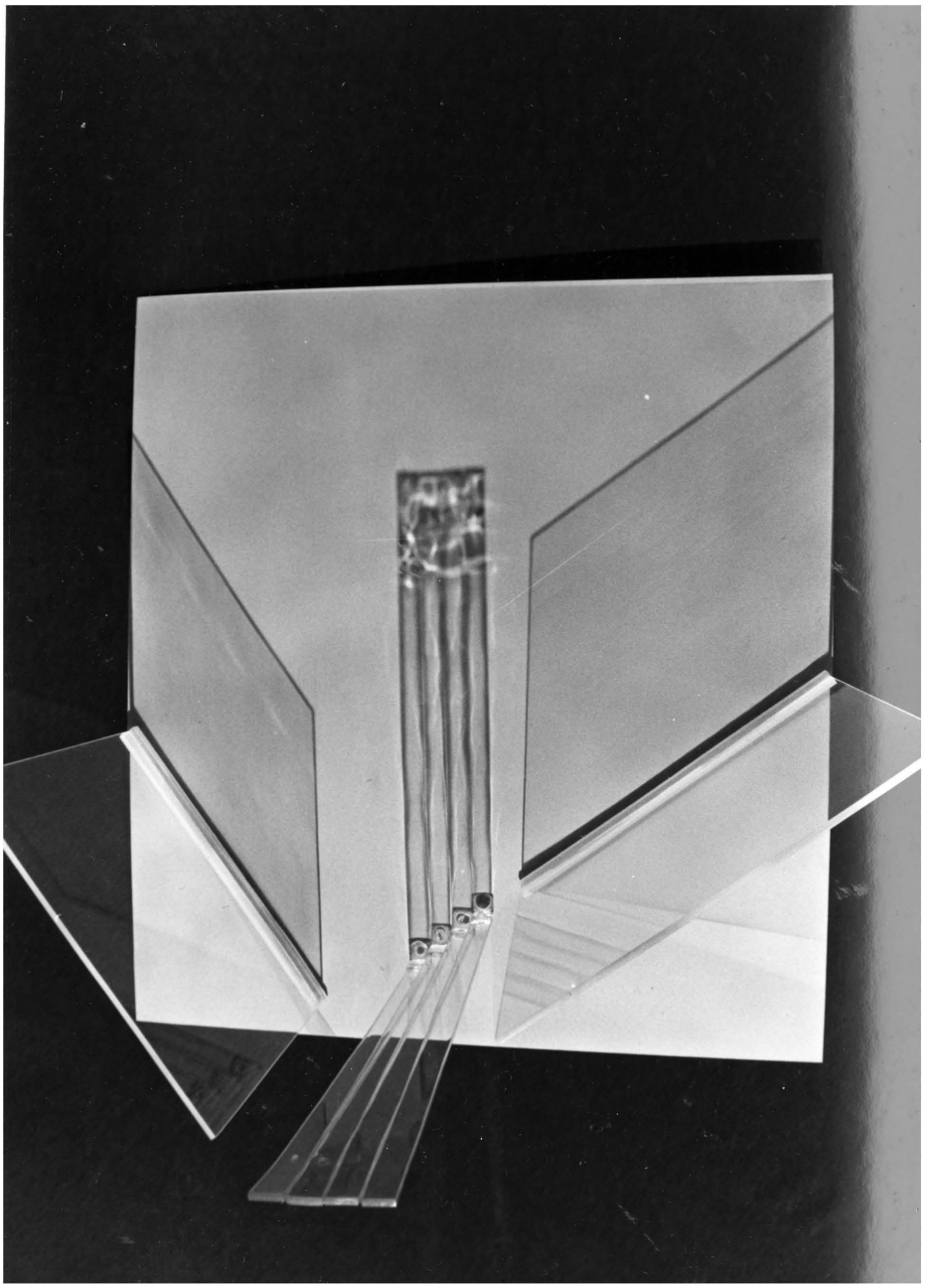

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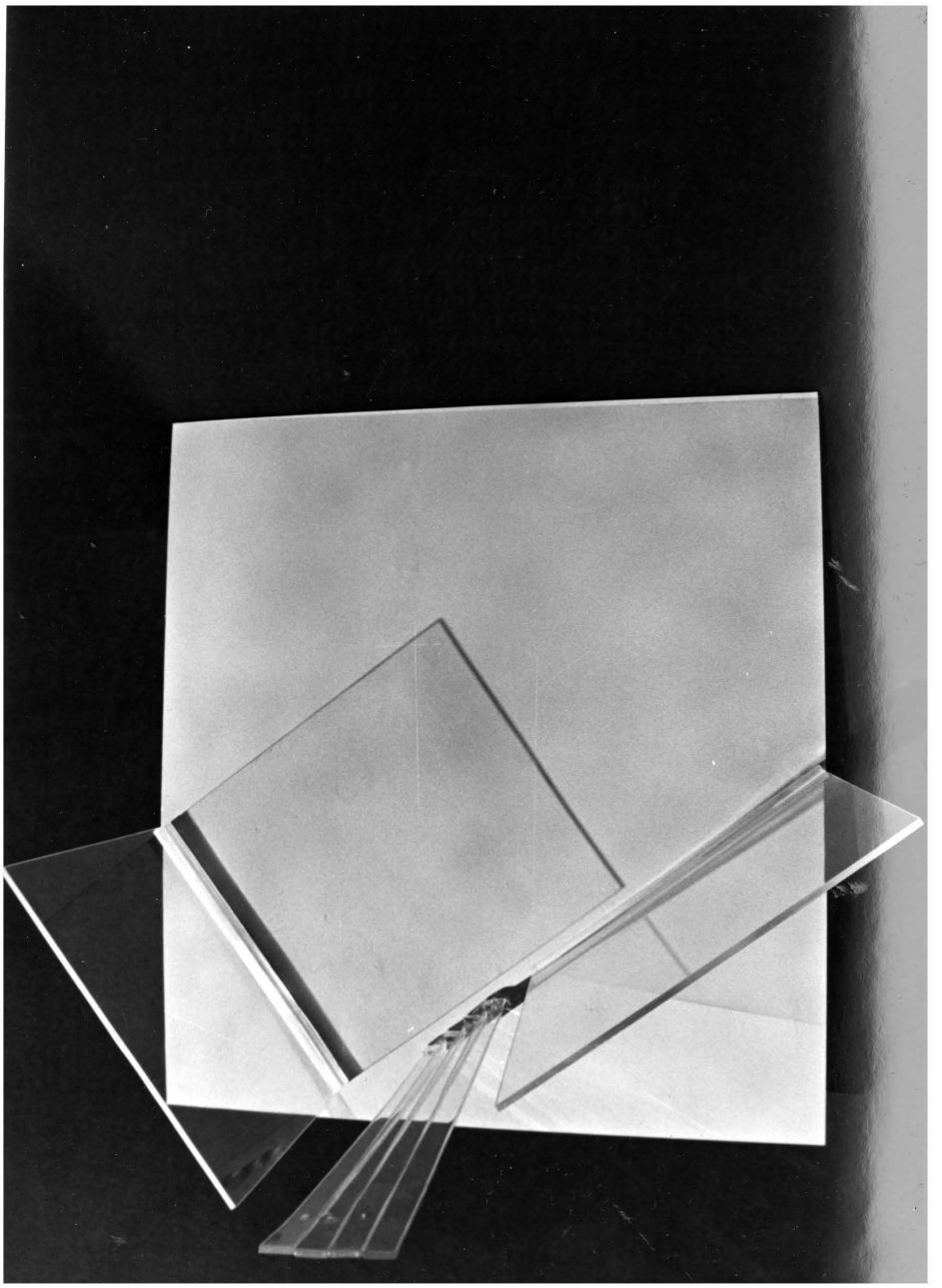

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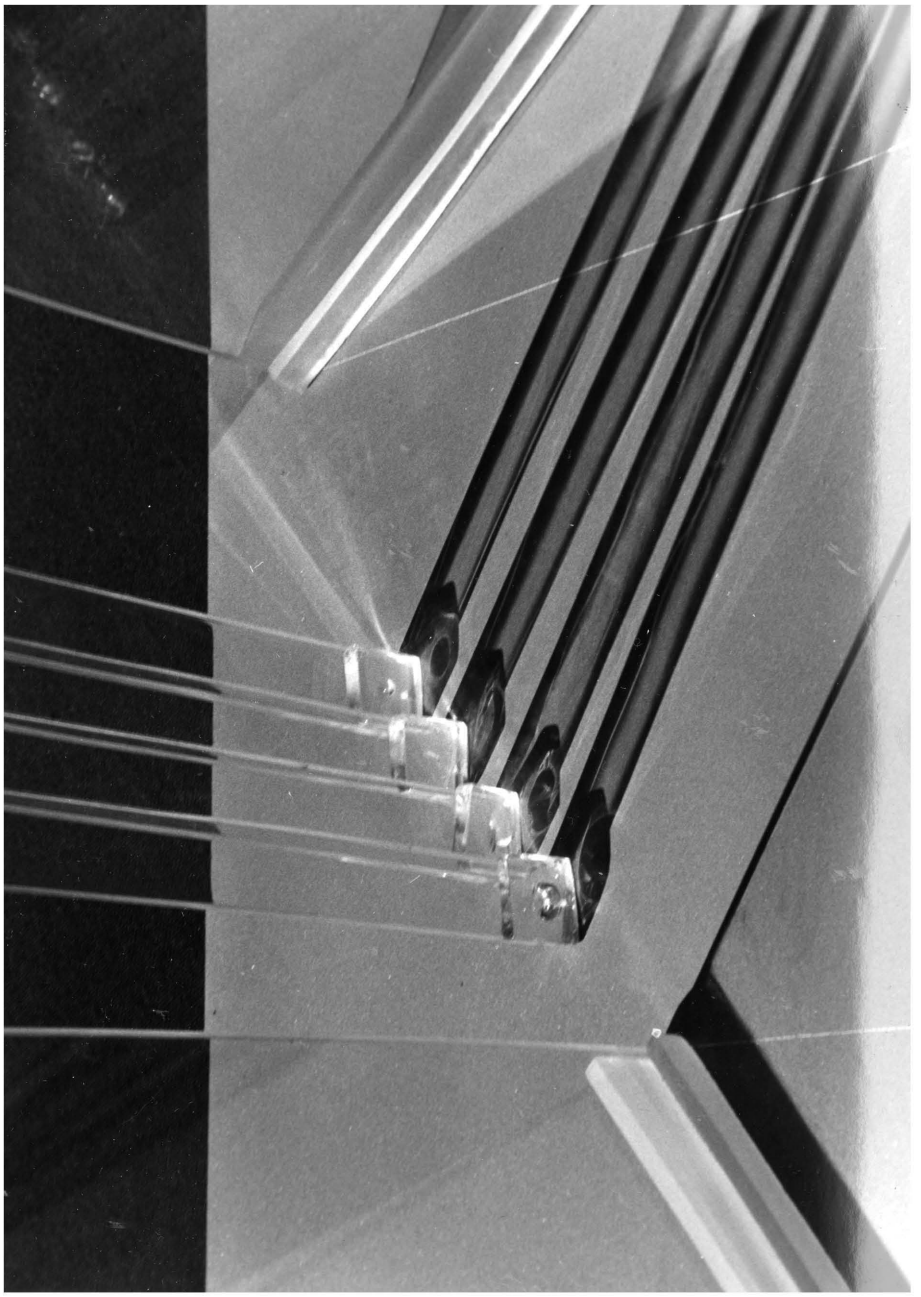

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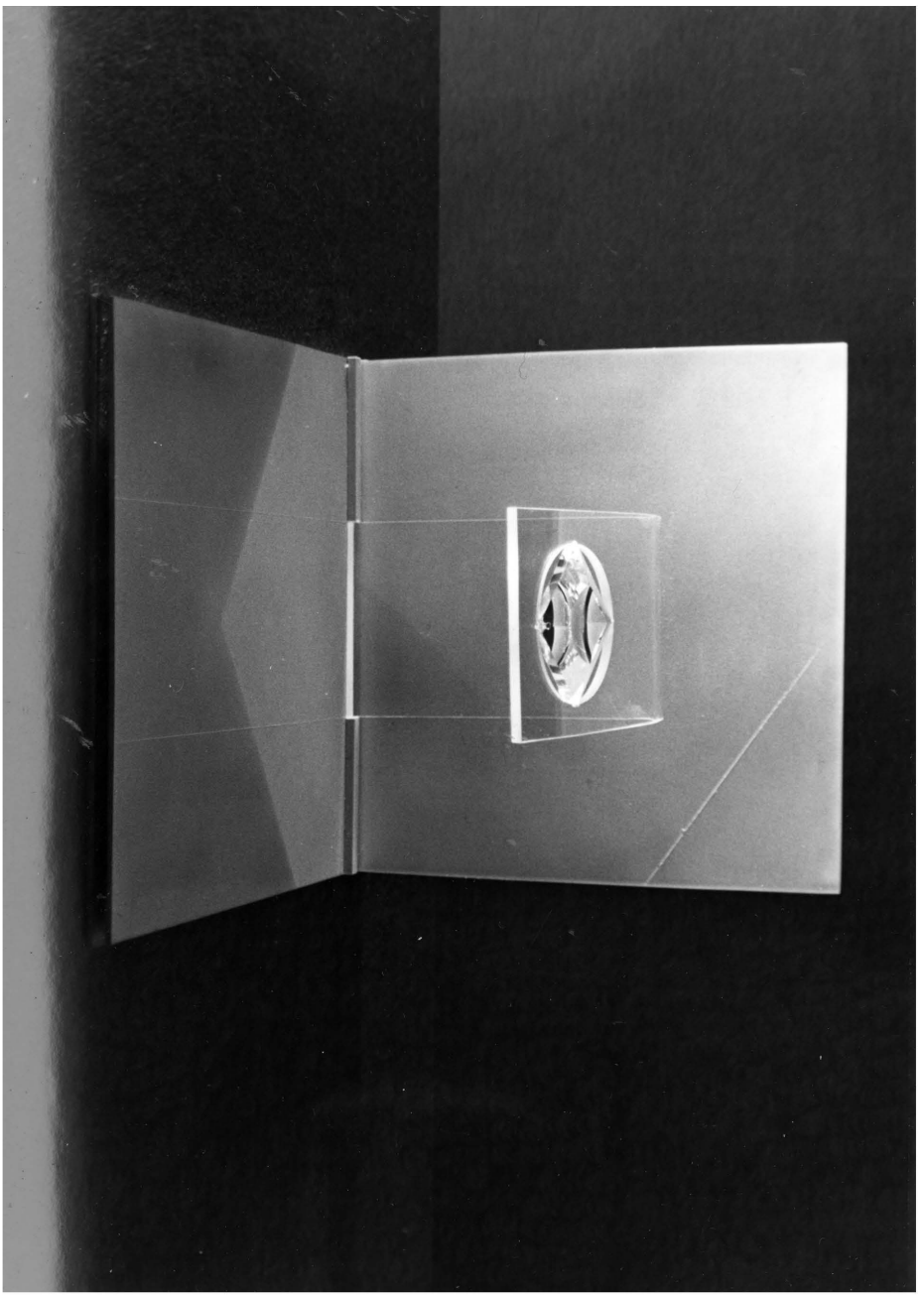

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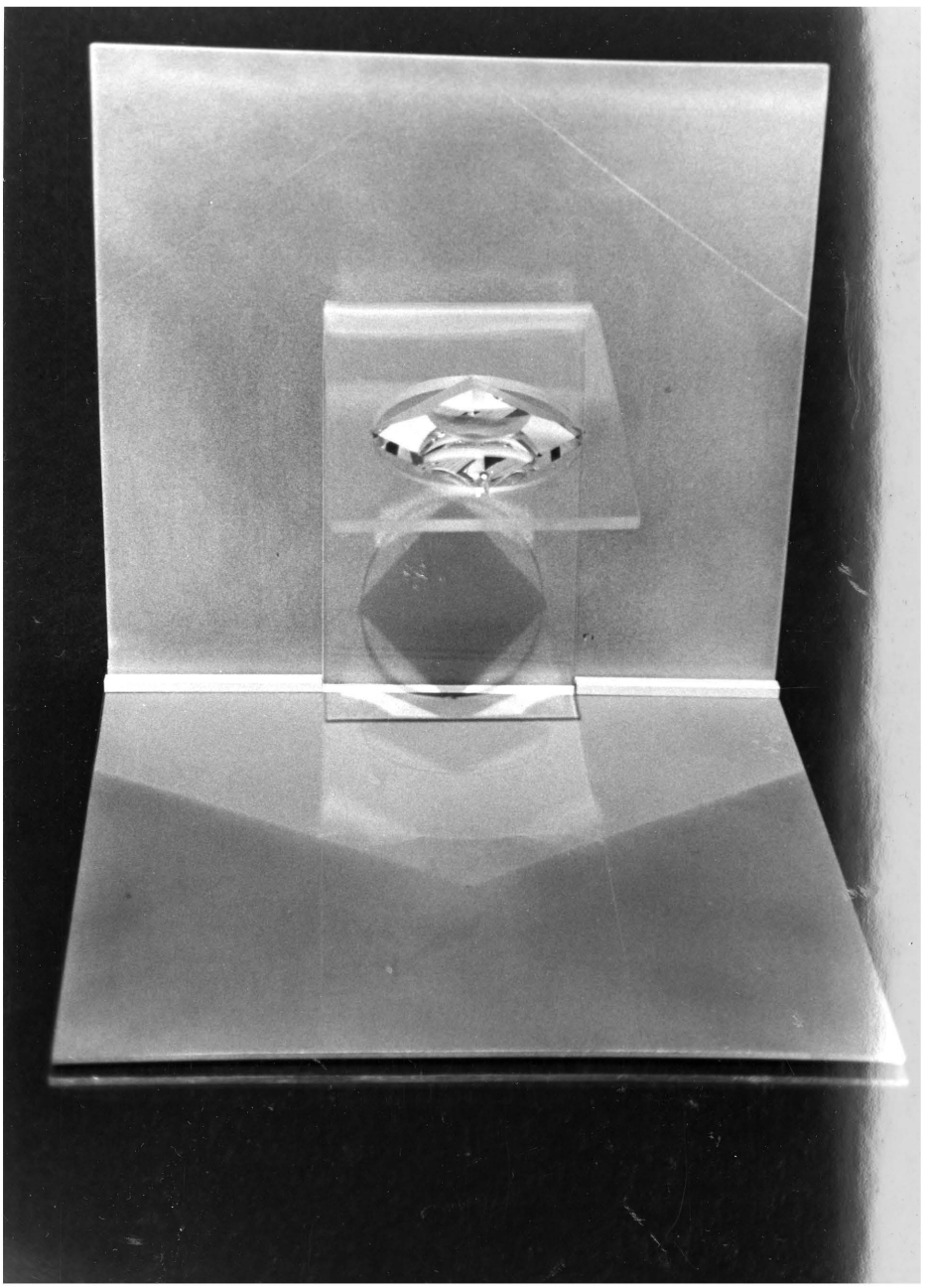

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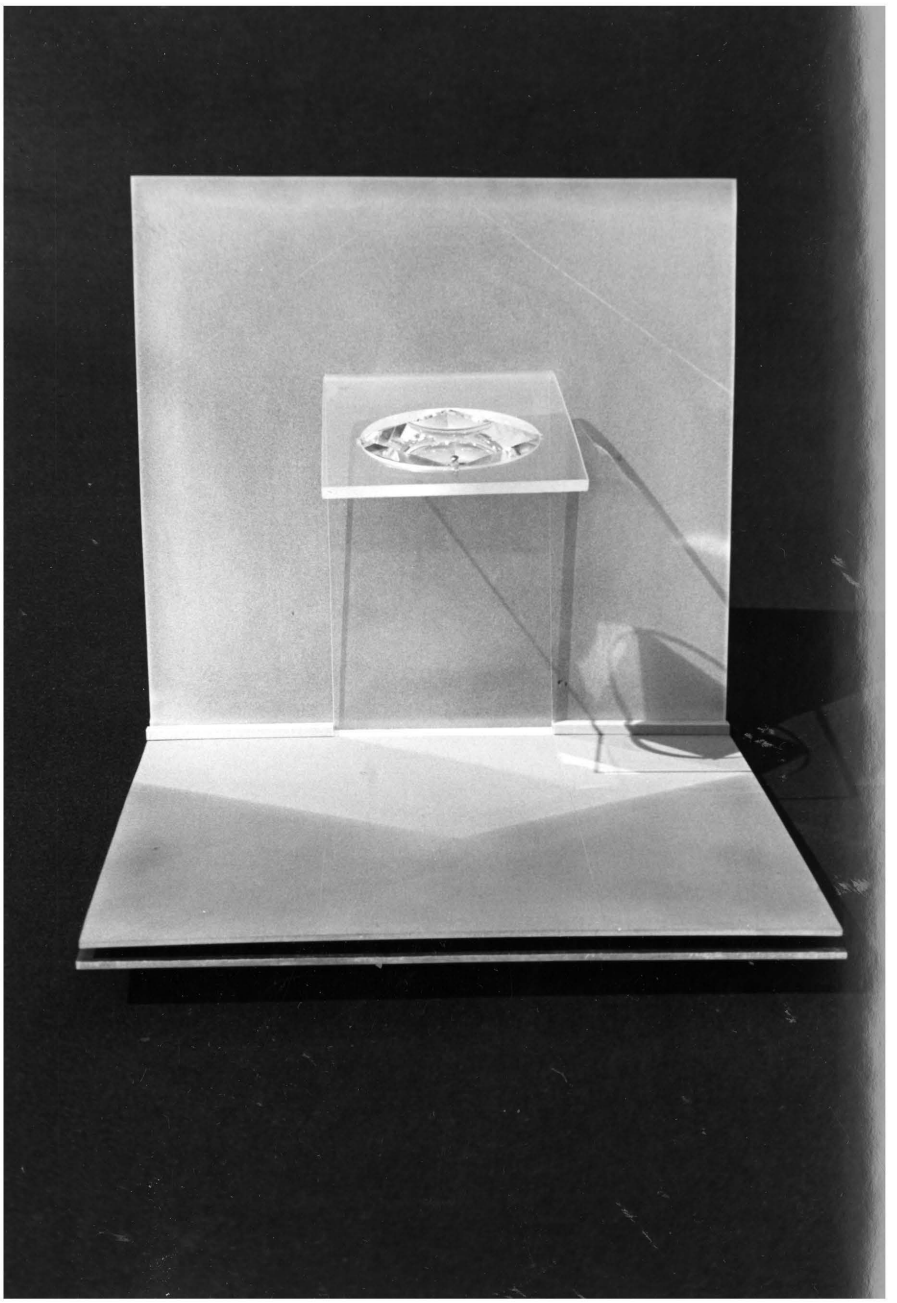

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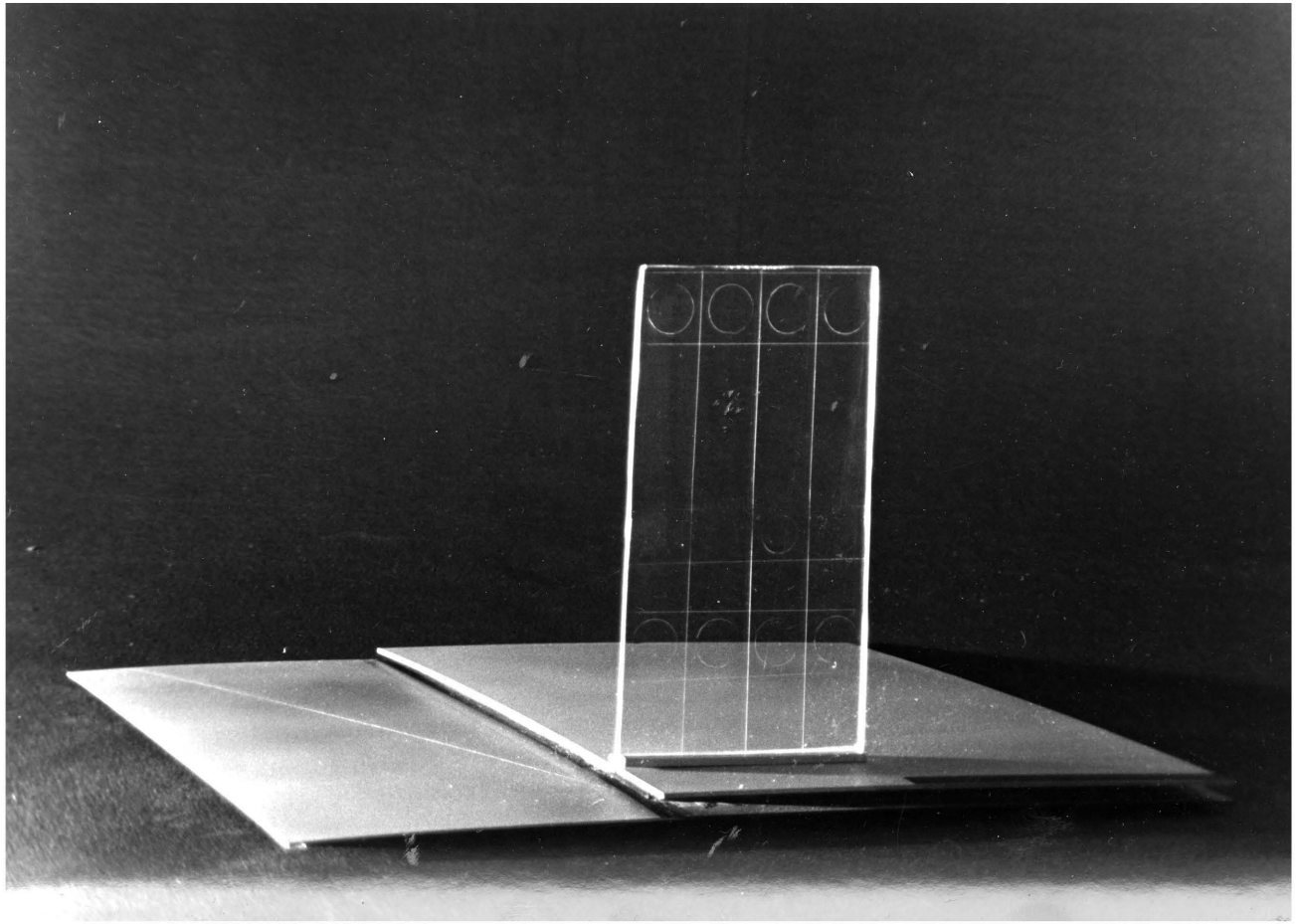

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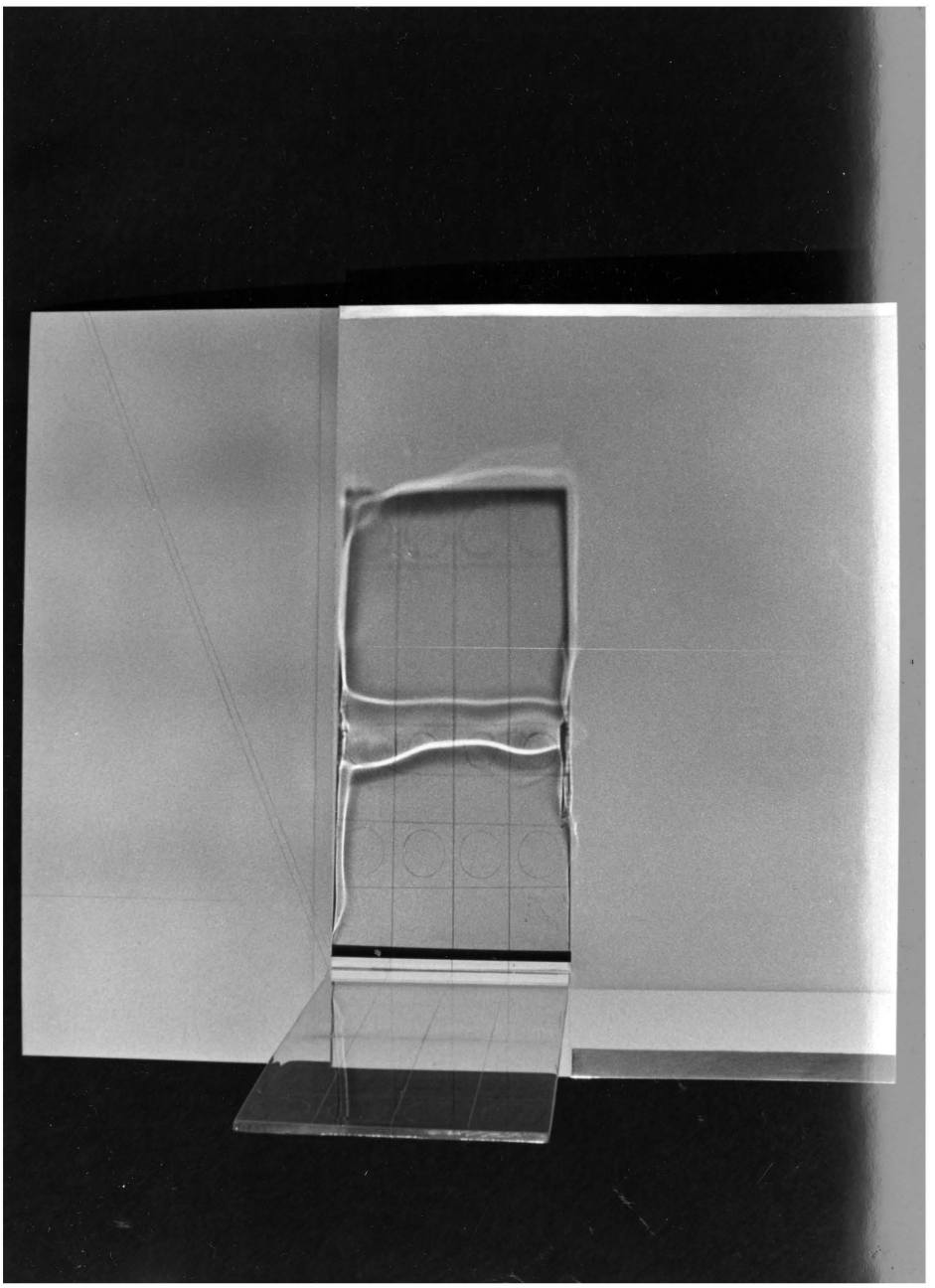

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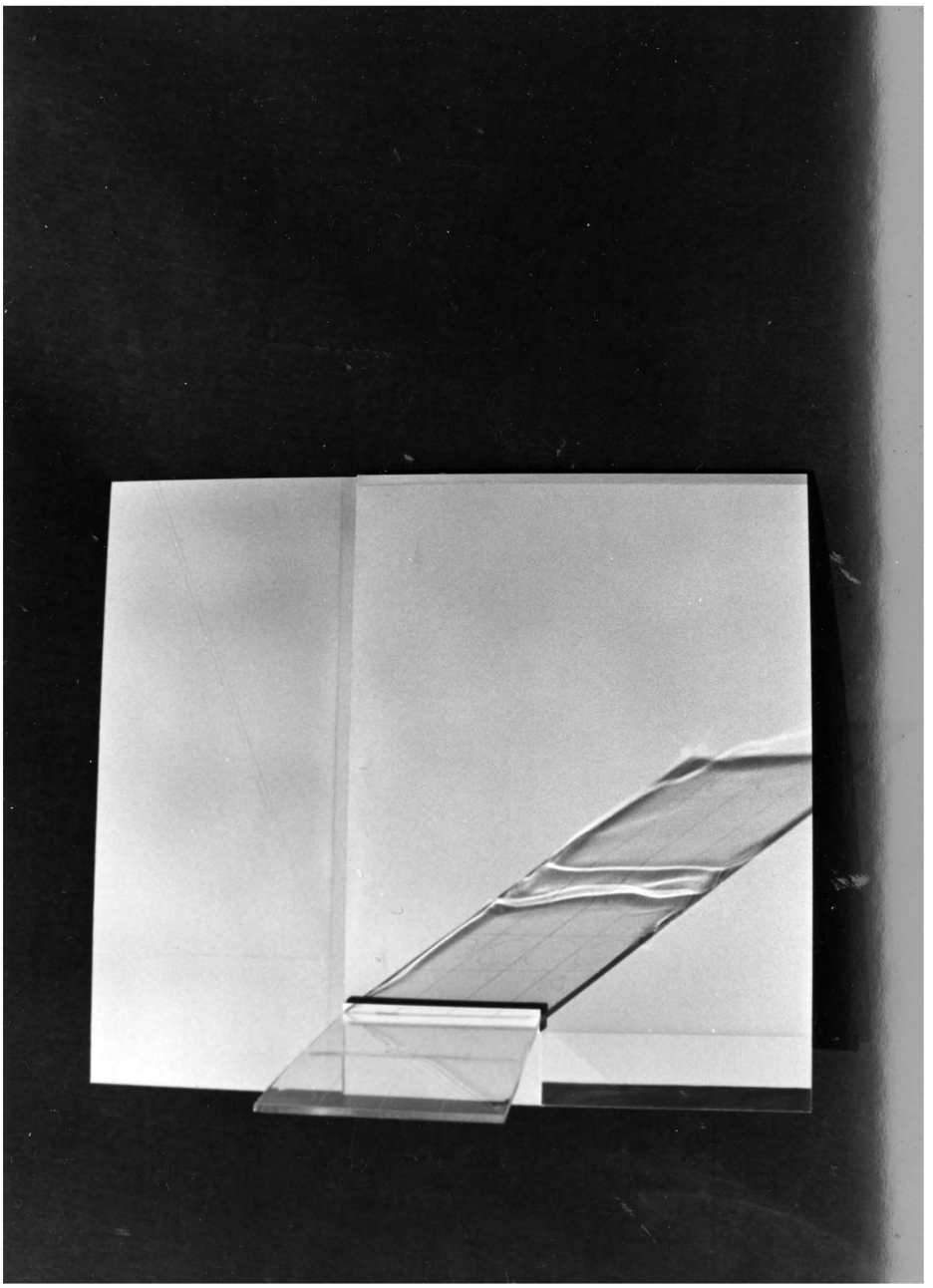

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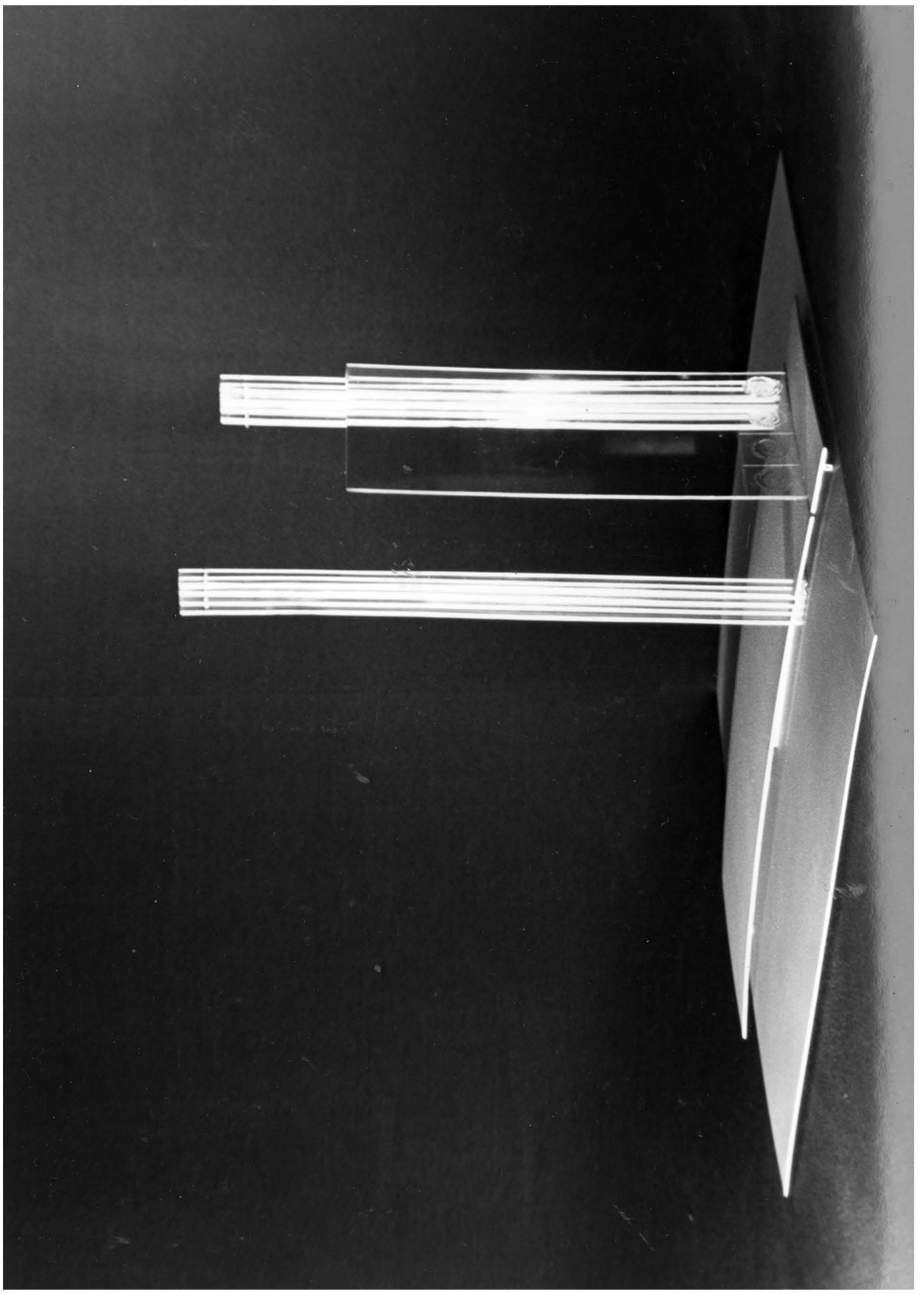

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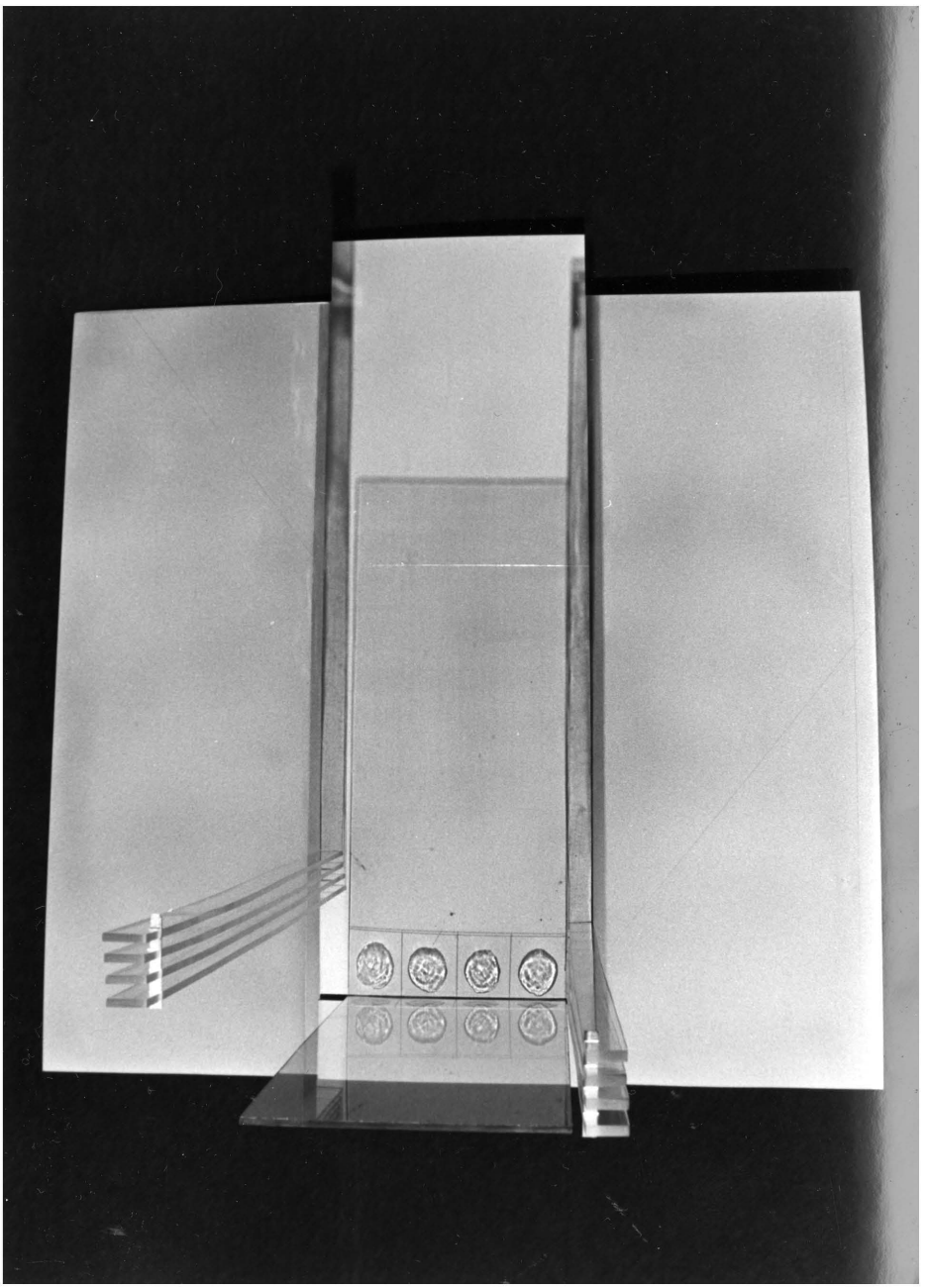

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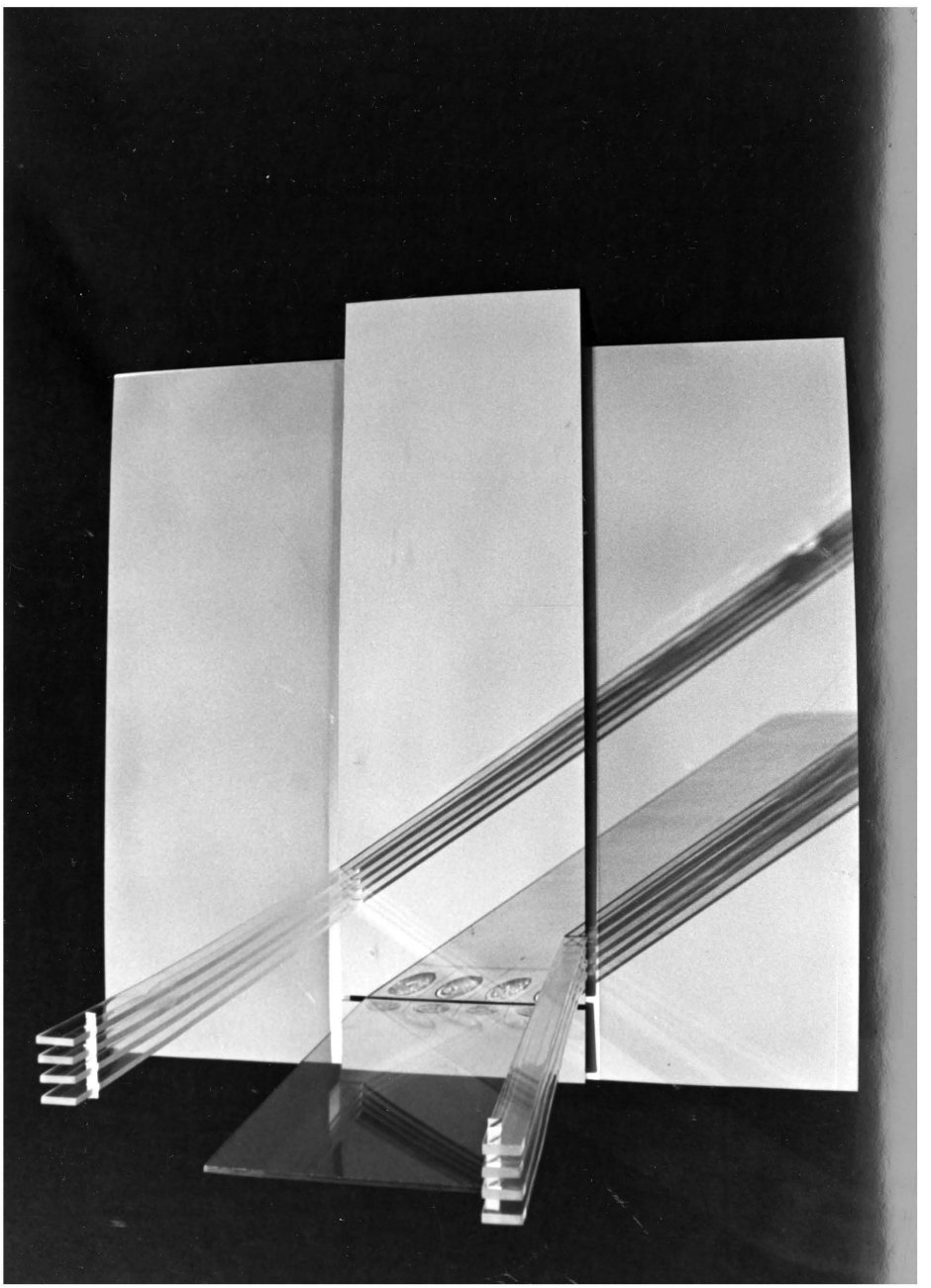

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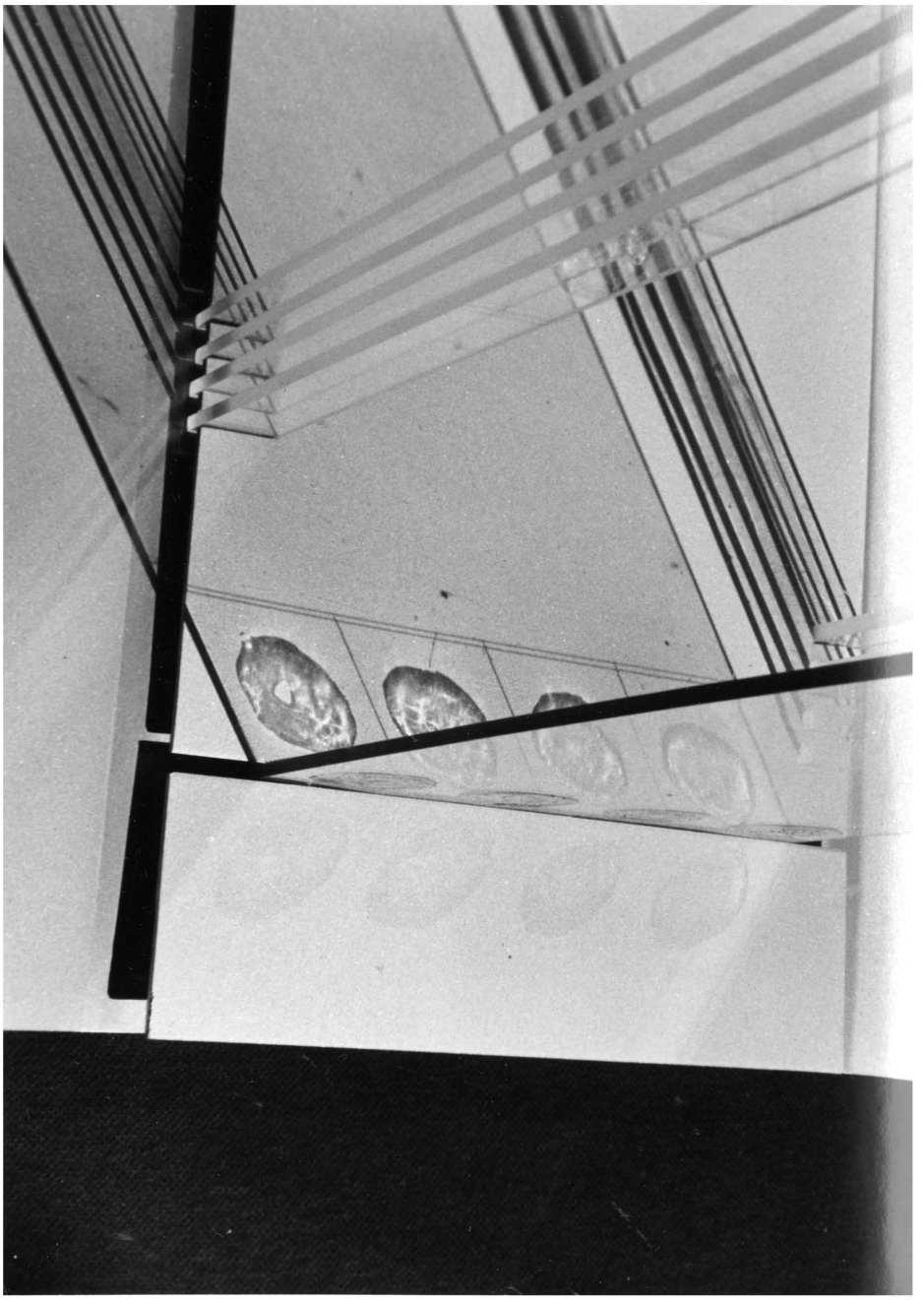

TECHNICAL PRINCIPLES

Plexiglass heated with a hand propane torch to approximately 300°F allowed the artist control in shaping the plexiglass to create various reflected and refracted images on a receptive surface. The receptive surfaces: aluminum, brass and formica, were sandblasted to achieve a matte finish where appropriate. The use of graphite, sandpaper and scribing instruments gave an added dimension to technique.

The photography of the work was done in the March-September equinox period creating images at mid-distance between the longest reflected or refracted images in December (more distorted) and in June when the shorter more clarified shapes occur (refer to Figure 40, Solar Light Chart).

SOLAR LIGHT CHART

A^1 Solar Light - June

A^2 Solar Light - March-September

A^3 Solar Light - December

B-C Plexiglass

D-E Receptive Surface

F-J Refracted Image or Shadow - December

G-J Refracted Image or Shadow - March-September

H-J Refracted Image or Shadow - June

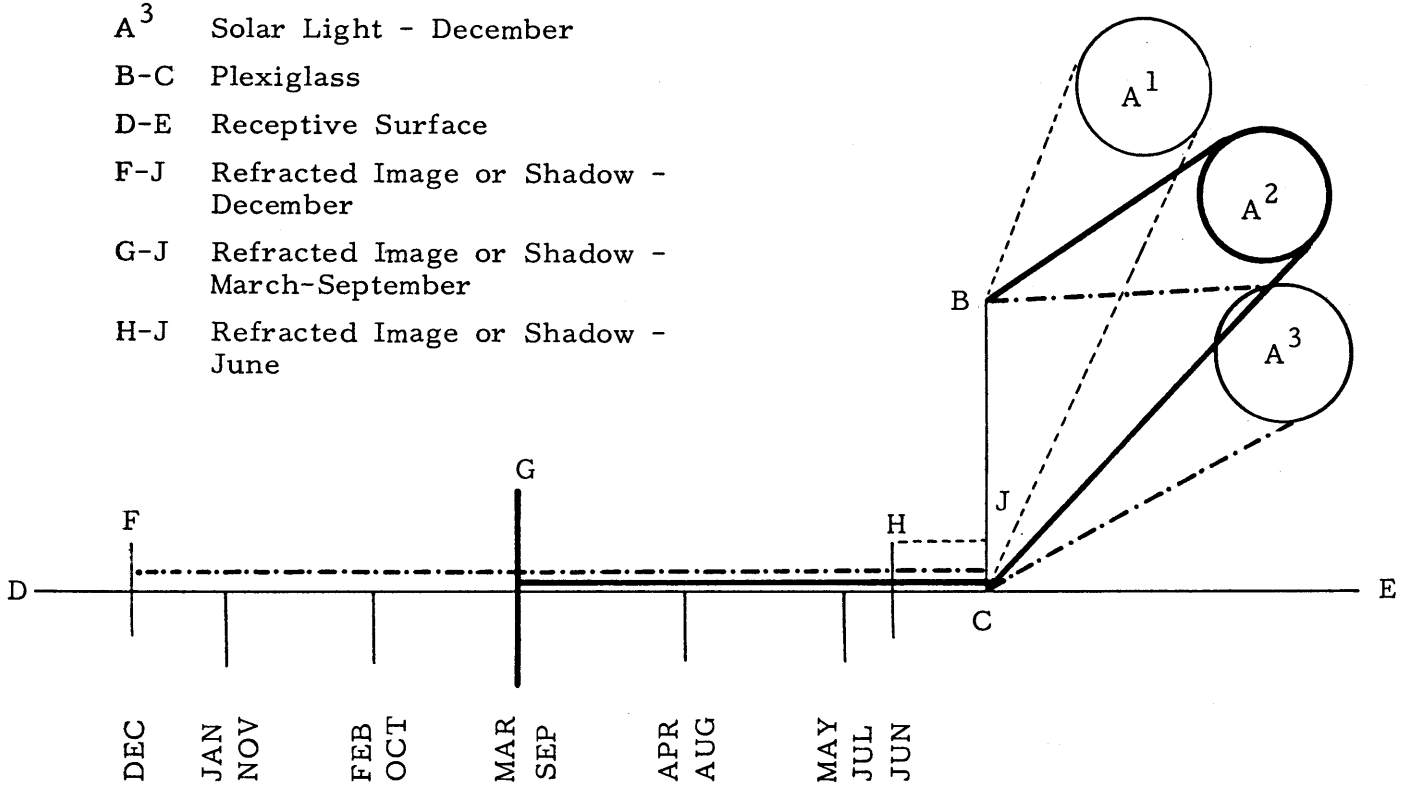

Figure 40. Solar Light Chart.

APPENDIX

THESIS PROPOSAL
EVOLUTIONARY CYCLES OF LIGHT

A series of sculptures is proposed to explore the implications of solar light on plexiglass. Reflected and refracted light, shadow and time comprise the framework for the study.

Loraine Lundquist-Anderson

9.8.81