

AHST 3322-001 (29089)
History of Modern Architecture
Dr. Charissa N. Terranova
University of Texas at Dallas
Spring 2022
M-W 1:00-2:15

04/18/22-04/21/22

International Style

I conduct my lecture today on the land of indigenous peoples, the Wichita, Tawakoni, Kiikaapoi (Kickapoo), and Jumanos.

Notebooks are due and the final exam is on **Wednesday May 11 at 2 p.m. in PHY 1.202**. The exam has two parts: slide identification and short essays. **NO BLUE BOOKS ARE NECESSARY.**

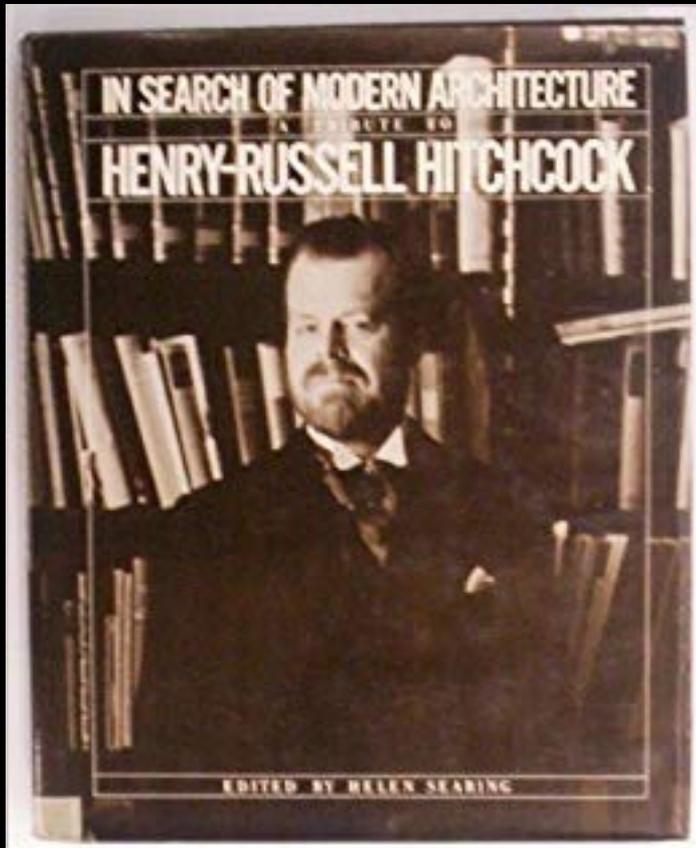
INTERNATIONAL STYLE MODERNISM

The effect of mass, of static solidity, hitherto the prime quality of architecture, has all but disappeared; in its place there is an effect of volume, or more accurately, of plane surfaces bounding a volume. The prime architectural symbol is no longer the dense brick, but the open box. Indeed, the great majority of buildings are in reality, as well as in effect, mere planes surrounding a volume. With skeleton construction enveloped only by a protective screen, the architect can hardly avoid achieving this effect of surface, of volume, unless in deference to traditional design in terms of mass he goes out of his way to obtain the contrary effect.

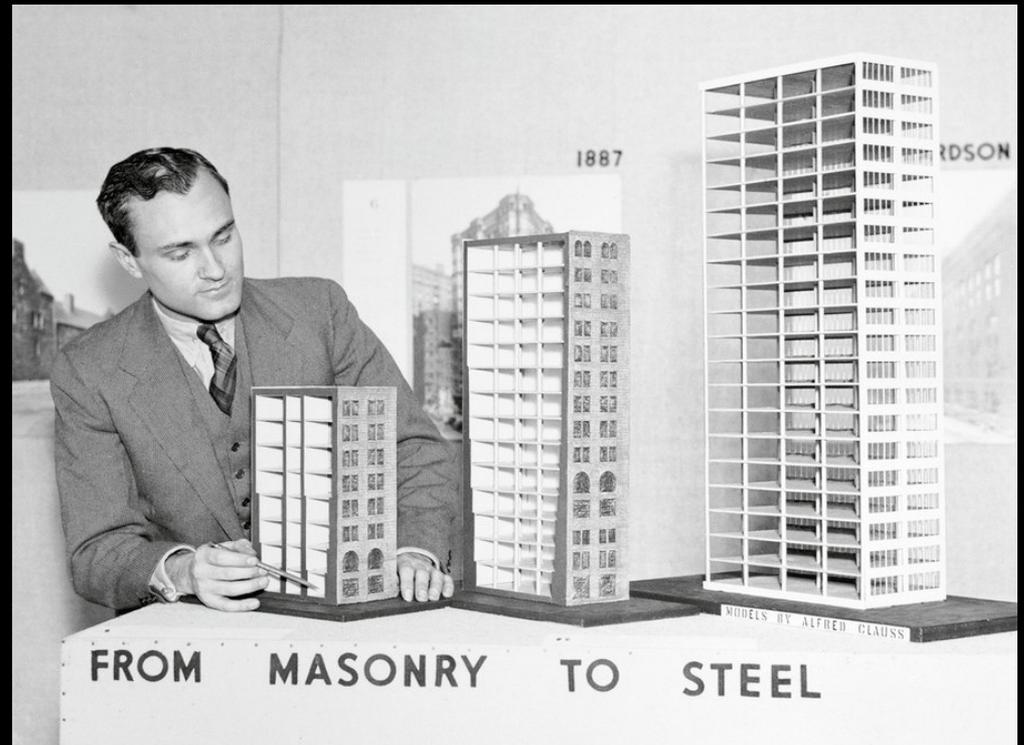
Henry-Russell Hitchcock and Philip Johnson
The International Style, 1932

The authors identified three different principles: the expression of volume rather than mass, the emphasis on balance rather than preconceived symmetry, and the expulsion of applied ornament.

What is missing here from all of our lectures and discussions about modern architecture in Europe?



Henry-Russell Hitchcock
(1903-1987)



Philip Johnson (1906-2005) with three models
that were shown at the Museum of Modern Art's
exhibit *Early Modern Architecture, Chicago, 1870-
1910*, which opened in January, 1933

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T H E



INTERNATIONAL STYLE

HENRY-RUSSELL HITCHCOCK and PHILIP JOHNSON
With a new foreword by PHILIP JOHNSON

- volume over mass
- balance over *a priori* symmetry
- no ornament

Henry Russell Hitchcock and
Philip Johnson, *The International
Style*, 1932



MODERN ARCHITECTURE

MUSEUM OF MODERN ART

International Exhibition of Modern
Architecture, Museum of Modern Art
February 10 – March 19, 1932

Philip Johnson and Henry Russell Hitchcock (curator), International Exhibition of Modern Architecture, Museum of Modern Art, New York, 1932



View of Modern Architecture exhibition at the Bullocks-Wilshire Department Store in LA, July 23-August 30, 1932



Introducing Modernism to America

- Modern Architects

- Le Corbusier
- Mies van der Rohe
- Walter Gropius
- Richard Neutra
- Raymond Hood

- Extent of Modern Architecture

- Architectural modernism is present in Europe, Asia, and America.

- Housing

- Catherine Bauer
- Lewis Mumford
- Henry Wright

International

Richard Neutra (1892-1970), Lovell (Health) House, Los Angeles, CA, 1927-1929



Richard Neutra (1892-1970), Lovell (Health)
House, Los Angeles, CA, 1927-1929



**The psycho-physiological
wellbeing of its occupants**

Bio-realism

CARE OF THE BODY

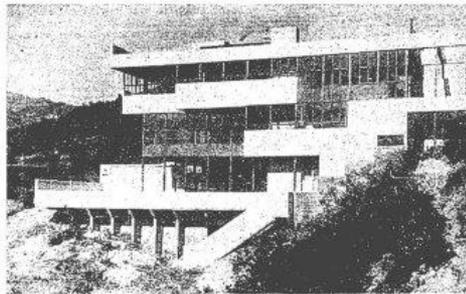
The Home Built for Health

For years I have periodically written articles telling you how to build your home so that you can derive from it the maximum degree of health and beauty service. I have written on miscellaneous problems such as lighting, heating, hydrotherapy equipment, labor-saving devices, sleeping porches, material for construction and other health resources. Always at the end of each article was the thought, "If I ever build a home myself—"

At last the day has arrived. We have built such a home—a home premised on the fundamental health principles and construction ideas which I have presented in my writings in the past.

By Philip M. Lovell, N. D.

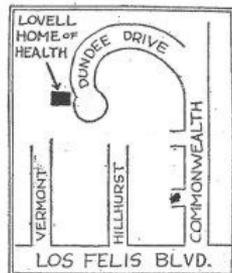
Author of "Diet for Health" and "The Health of the Child"



Front View of Dr. Lovell Home of Health.

I know that there are many who are interested, and with this in mind we are opening it for public inspection before furnishing and occupying it.

Hence, consider this an invitation for all Care of the Body readers to visit this newly constructed home built for health. It is located at 4818 Dundee Drive, Los Angeles, in the Los Feliz hills adjacent



to Griffith Park. The accompanying sketch will show the way of getting there.

The house will be open for public inspection today, Sunday, the 15th inst., and Saturday and Sunday, the 21st and 22nd inst., respectively, from 8 a.m. to 5 p.m.

Mr. Richard T. Neutra, architect who designed and supervised the construction, will lecture at 3 p.m. on each of these days on building the home for health and will conduct the audience from room to room and place to place, describing in detail the purposes of each innovation.

The house is located at the end of a blind street with a wide turning radius. In order to avoid confusion it is requested that everyone visiting the house by automobile go to the end of the road, turn around at the turning basin and park on the right curb with your car facing downhill. I shall also ask that you please drive slowly and carefully on Dundee Drive, as there will probably be many people coming and going and

there are several blind turns.

For those who cannot inspect this home, a brief description will not be amiss.

The main construction is steel, built on a deep, reinforced concrete foundation. The walls, floors, ceilings and roof are all steel-girded, being covered with fireproof expanded steel and plaster.

The window sashes are steel and there is a greater profusion of them than in any home I have ever seen.

There are plenty of opportunities throughout the house for nude sun baths privately taken for each member.

Many of the windows are of the latest invention of glass, admitting ultra-violet light.

The bathrooms are completely equipped with hydrotherapy equipment, including such things as six baths, multiple marathon showers and the latest type of sanitary fixtures.

Sanitation and hygiene are the keynote.

The ventilation, sunshine and light ideas are exceedingly modern.

The bedrooms are built "en suite"; that is, every inside bedroom has its accompanying sleeping porch so that sleeping can be done outdoors.

The lighting is indirect—mostly recessed inside the ceiling—and shows behind ribbed glass.

The kitchen would be interesting to every practical housewife, for it incorporates not only the principles of hygiene and sanitation, but also most of the labor-saving devices so dear to the average woman. There is, for instance, an electric dishwasher, a vegetable-washer, a water filter, a grinder for grains or coffee, if one wishes, heaps of closet space, a gas incinerator and similar conveniences.

From the photographs of the exterior of the residence you can see the quantity of glass which makes the house really an outdoors home whenever so desired.

This home, in a sense, is being built mainly for the little ones. It is really a social school in which they will learn their life habits. Their customs will be molded and shaped therein.

With this in view, it has many of the features which schools should have, but most of them do not. There are, for instance, ample playground facilities with playground equipment to be added. There is a wading pond, where they can sail their boats and grow their fish.

An out-of-doors, yet inclosed area, is a schoolroom proper with provision for their carpenter work, clay modeling and other hand tools.

There are facilities for swimming, basketball, handball and, in fact, any other provision which can be developed in a reasonably small area of ground.

Yet most of these are available to the average small home—the cottage of modest means.

The entire home should be considered from a social sense rather than from a restricted private family residence—a place where friends and kin can gather—where children of the neighborhood will prolong their stay voluntarily.

The pictures will show some of it. The best can be seen on the residence. These are some of the primary objectives in opening this home for public inspection. The thought and care that

It has become imperative that in designing our physical environment we should consciously raise the fundamental question of survival in the broadest sense of the term. Any design that impairs or imposes excessive strain on the natural human equipment should be eliminated or modified in accordance with the requirements of our nervous, and more gradually, our total physiological functioning.

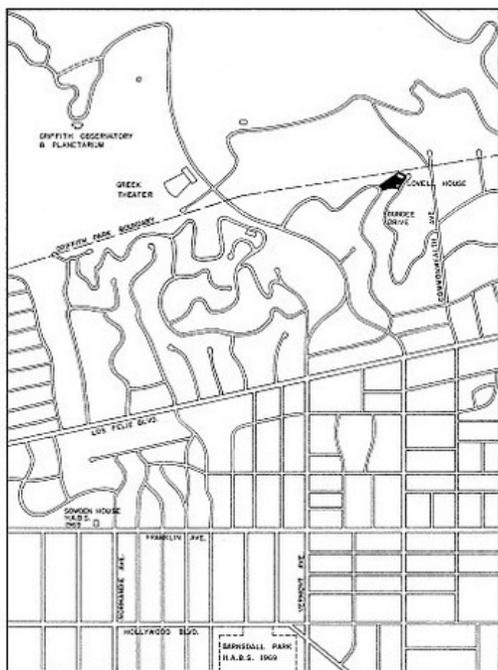
Richard Neutra
Survival through Design
(1954)



Photograph by Willard D. Morgan, architect Richard D. Neutra
Side view of home and garage.

LOVELL HOUSE

(HEALTH HOUSE)



LOCATION MAP
FROM LOS ANGELES CITY MAP - 1959 EDITION

SCALE: 1"=800'



THE LOVELL (HEALTH) HOUSE, DESIGNED BY RICHARD J. NEUTRA IN 1928, IS A PRIME EXAMPLE OF RESIDENTIAL ARCHITECTURE WHERE TECHNOLOGY CREATES THE ENVIRONMENT. THE HOUSE IS CONSTRUCTED OF A LIGHT STEEL FRAMEWORK, FILLED WITH STANDARD WINDOW COMPONENTS. ALL PARTS OF THE STRUCTURE WERE SHOP FABRICATED AND TRANSPORTED TO THE STEEP HILLSIDE SITE - THE STRUCTURAL SKELETON BEING ERECTED IN JUST FORTY HOURS. THE RIBBONS OF WALL ARE OF THIN CONCRETE SPRAYED AGAINST EXPANDED METAL BACKED BY INSULATION PANELS ACTING AS FORMS. THE BALCONIES ARE SUSPENDED FROM THE ROOF FRAME. COMMONLY CALLED THE HEALTH HOUSE BECAUSE THE CLIENT WAS A NATUROPATH, THE BUILDING COMPLEX REVEALS NEUTRA'S BELIEFS CONCERNING HEALTH AND ARCHITECTURAL DESIGN.

THIS SET OF DRAWINGS IS BASED ON THE ARCHITECT'S ORIGINAL DRAWINGS, SUPPLEMENTED BY ON SITE INVESTIGATION AND CORRECTED THROUGH PHOTOGRAPHIC RECORDS.

RECORDED BY
THE UNITED STATES NATIONAL PARK SERVICE

THIS PROJECT WAS UNDERTAKEN BY THE HISTORIC AMERICAN BUILDINGS SURVEY IN CO-OPERATION WITH THE SOUTHERN CALIFORNIA CO-ORDINATING COMMITTEE FOR HISTORIC PRESERVATION AND THE UNIVERSITY OF SOUTHERN CALIFORNIA - MEASURED AND DRAWN JULY AND AUGUST 1969, UNDER THE DIRECTION OF JAMES C. MASSEY, CHIEF OF H.A.B.S. AND BY ROBERT C. GIEBNER (UNIVERSITY OF ARIZONA), PROJECT SUPERVISOR, WITH STUDENT ARCHITECTS STANLEY A. WESTFALL, JEFFREY B. LENTZ, SIMON M. UDELL, AND JAMES A. MACKENZIE, OF THE UNIVERSITY OF SOUTHERN CALIFORNIA, AT THE LOS ANGELES, CALIFORNIA FIELD OFFICE.



DRAWN BY JEFFREY B. LENTZ, DEL. 1969

SOUTHERN CALIFORNIA PROJECT #
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
UNDER DIRECTION OF THE NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

NAME AND LOCATION OF STRUCTURE

LOVELL (HEALTH) HOUSE

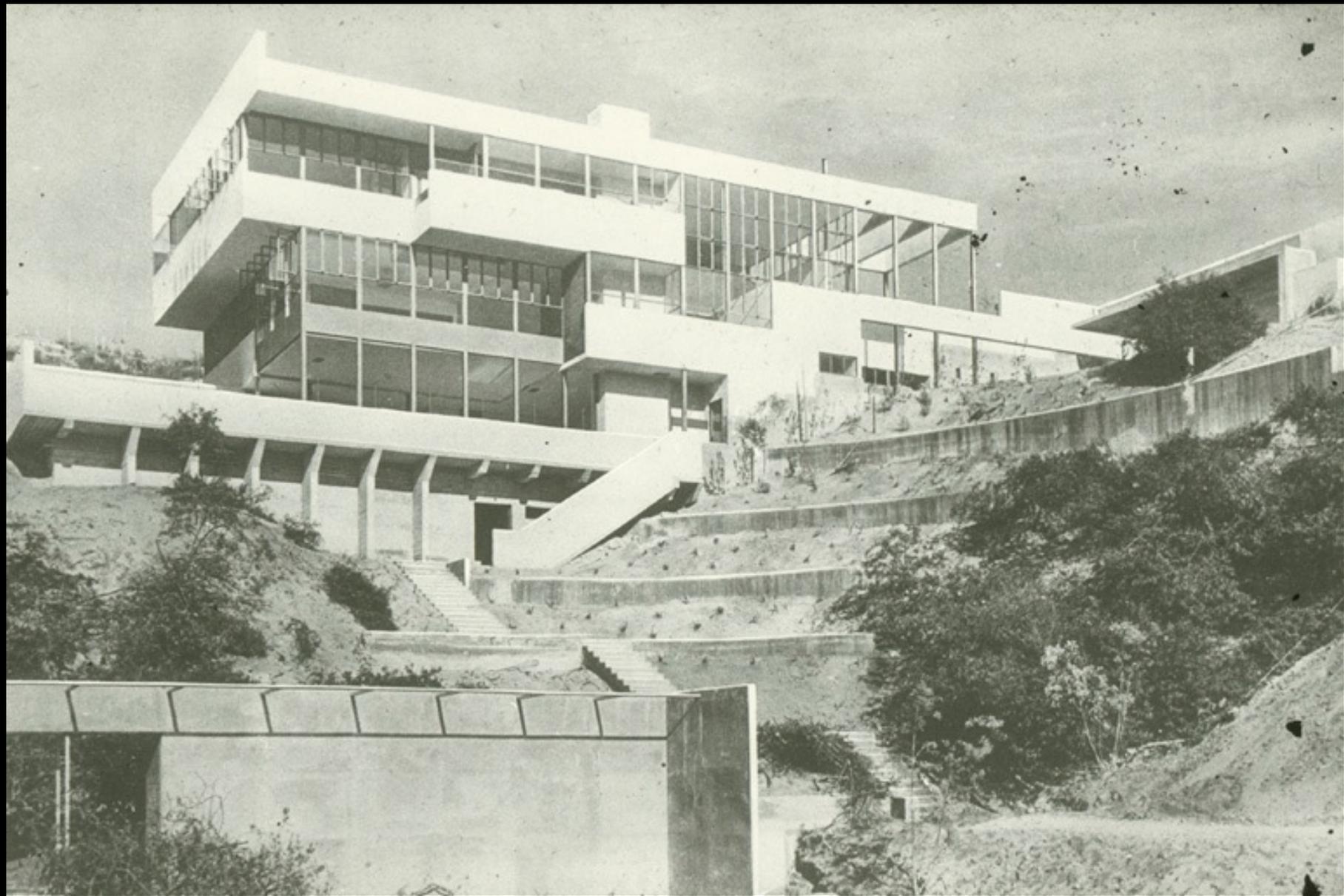
4616 DUNDEE DRIVE

LOS ANGELES

LOS ANGELES COUNTY, CALIFORNIA

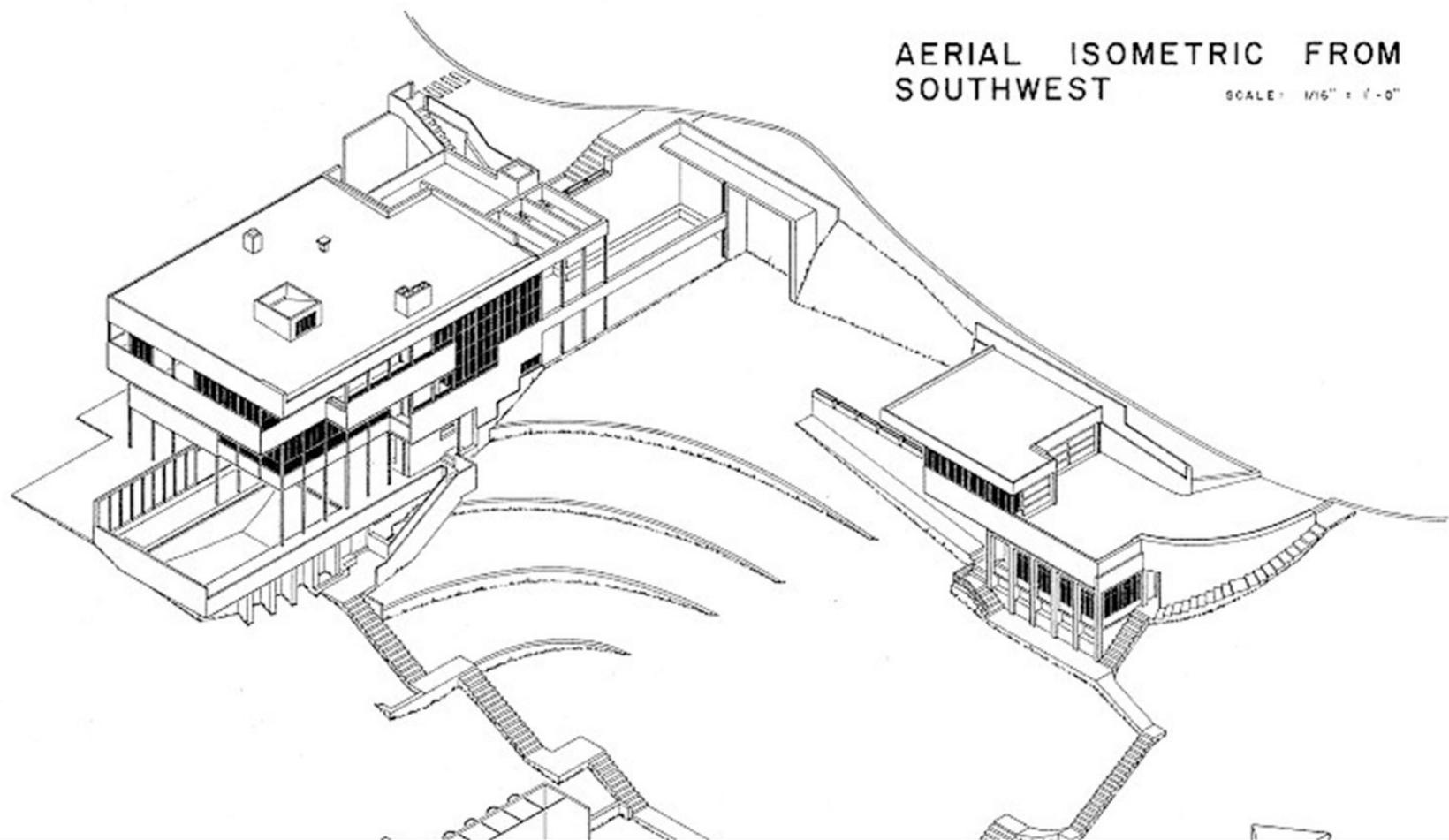
SURVEY NO.
CA
1936

HISTORIC AMERICAN
BUILDINGS SURVEY
SHEET 1 OF 9 SHEETS

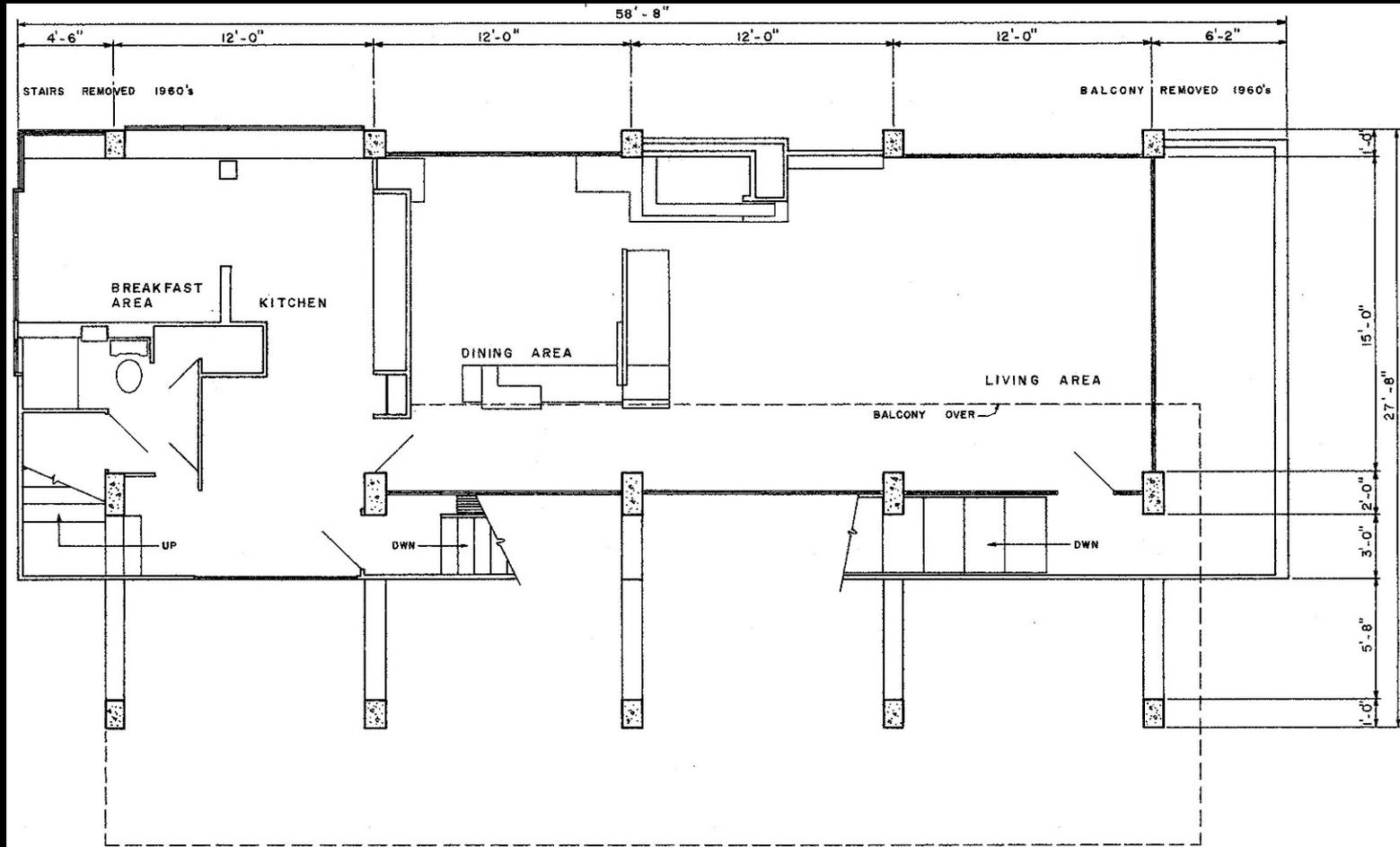


AERIAL ISOMETRIC FROM
SOUTHWEST

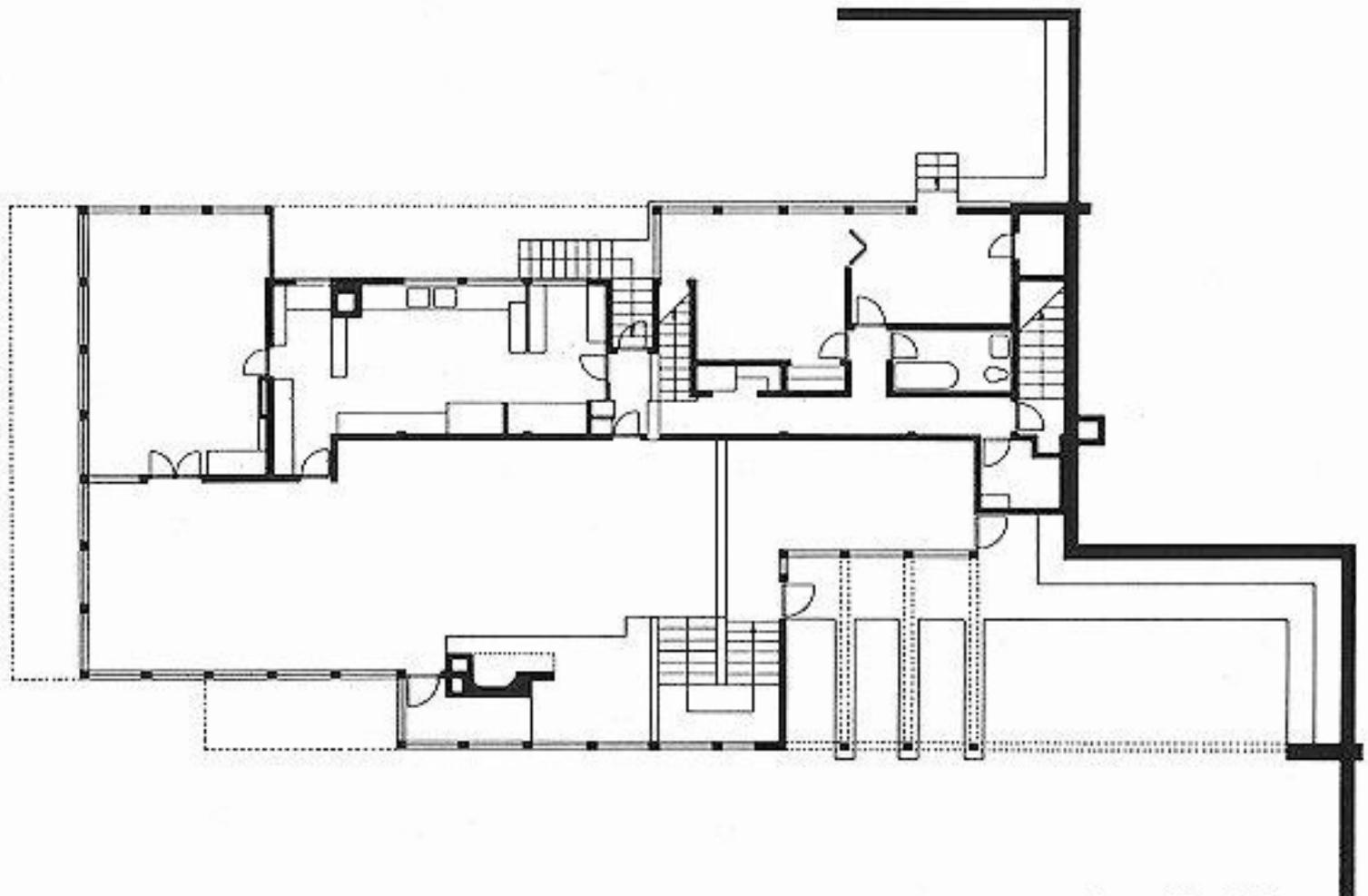
SCALE: 1/16" = 1'-0"





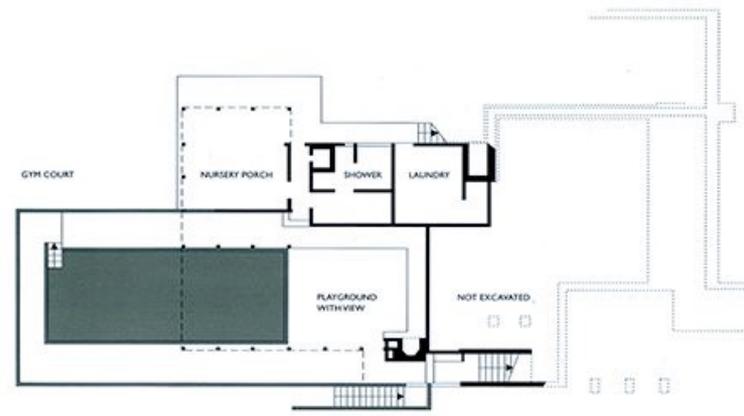
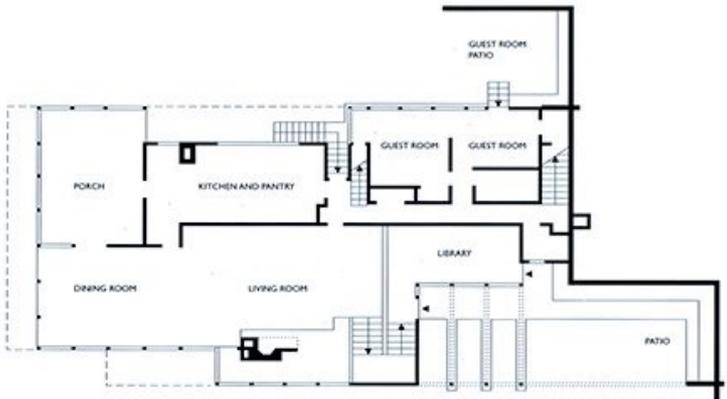
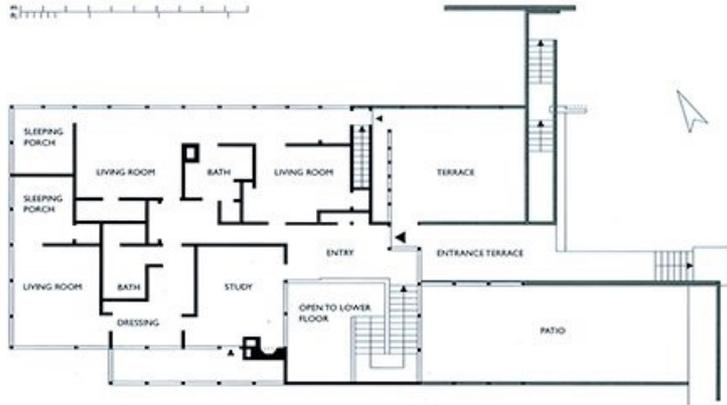


First-Floor Plan



GreatBuildings.com

Second-Floor Plan



Walter Gropius
Harvard University
Graduate School of
Design
Cambridge, MA

1937





Walter Gropius, Gropius House, Lincoln, Massachusetts, 1938



I made it a point to absorb into my own conception those features of the New England architectural tradition that I found still alive and adequate.

--Gropius

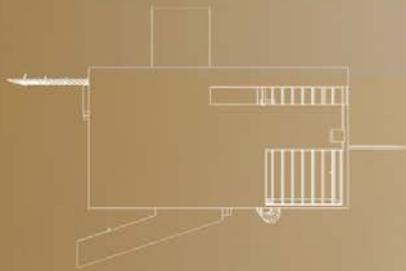
Walter Gropius, Gropius House, Lincoln, Massachusetts, 1938



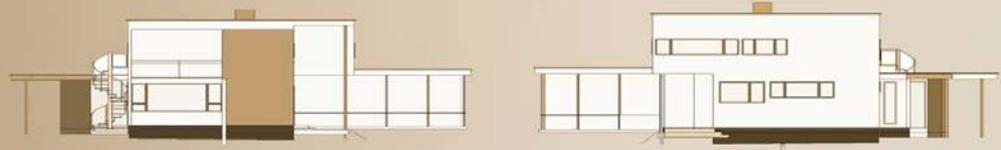
Walter Gropius, Gropius House, Lincoln, Massachusetts, 1938

Set amid fields, forests, and farmhouses, the Gropius House mixes up the traditional materials of New England architecture (wood, brick, and fieldstone) with industrial materials such as glass block, acoustic plaster, and chrome banisters. The house structure consists of a traditional New England post and beam wooden frame, sheathed with white painted tongue and groove vertical siding. Traditional clapboards are used in the interior foyer, but are applied vertically. Striking as it is, the house was built with economy in mind, and total construction costs were \$18,000.

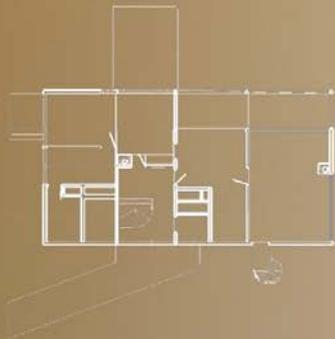
GROPIUS HOUSE



ROOF PLAN



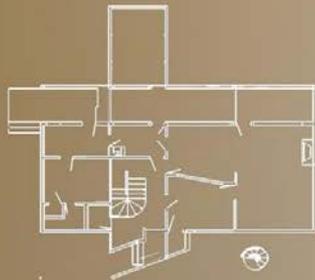
FRONT AND BACK ELEVATIONS



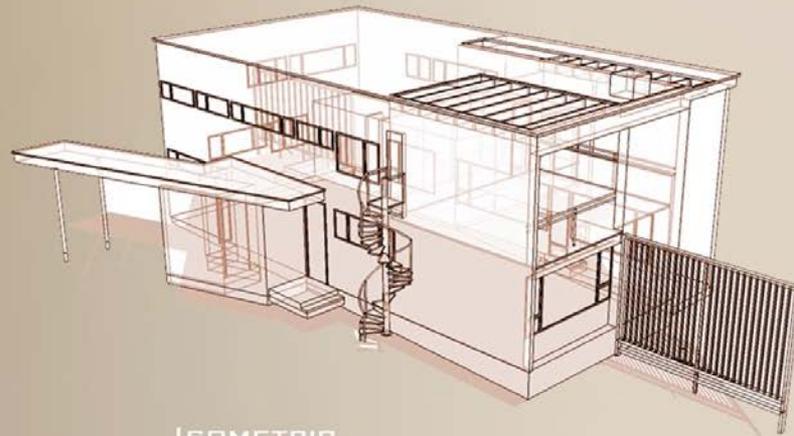
SECOND FLOOR PLAN



LEFT AND RIGHT ELEVATIONS



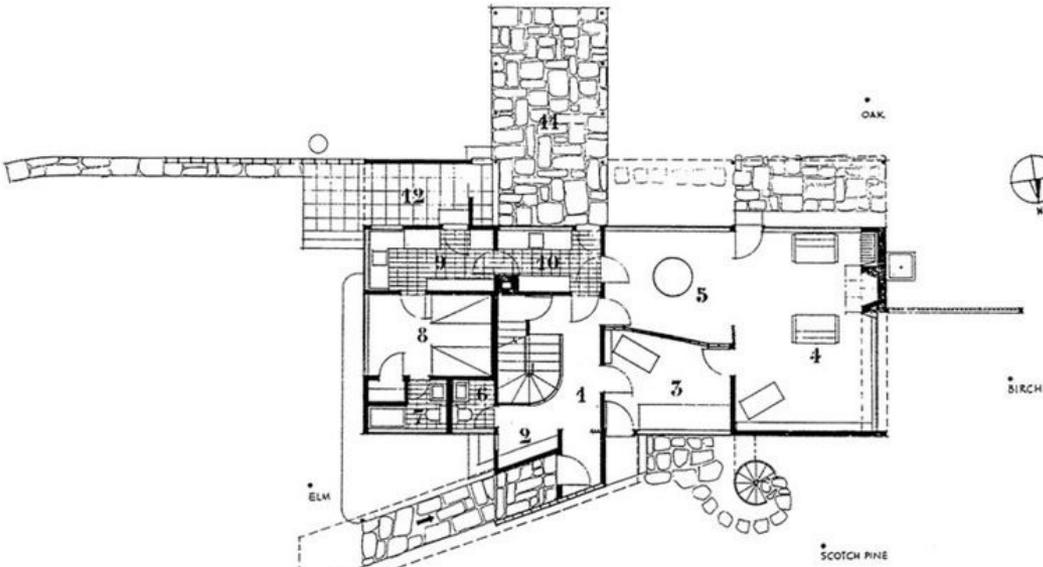
FIRST FLOOR PLAN



ISOMETRIC

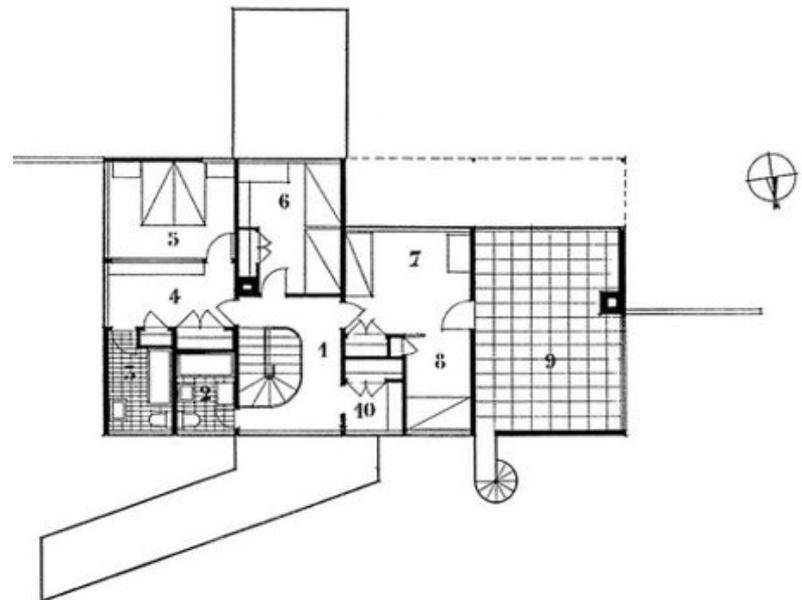






FIRST FLOOR

- | | |
|-----------------|-------------------|
| 1 entrance hall | 7 maid's bath |
| 2 coats | 8 maid's room |
| 3 study | 9 kitchen |
| 4 living room | 10 pantry |
| 5 dining room | 11 screened porch |
| 6 toilet | 12 service porch |



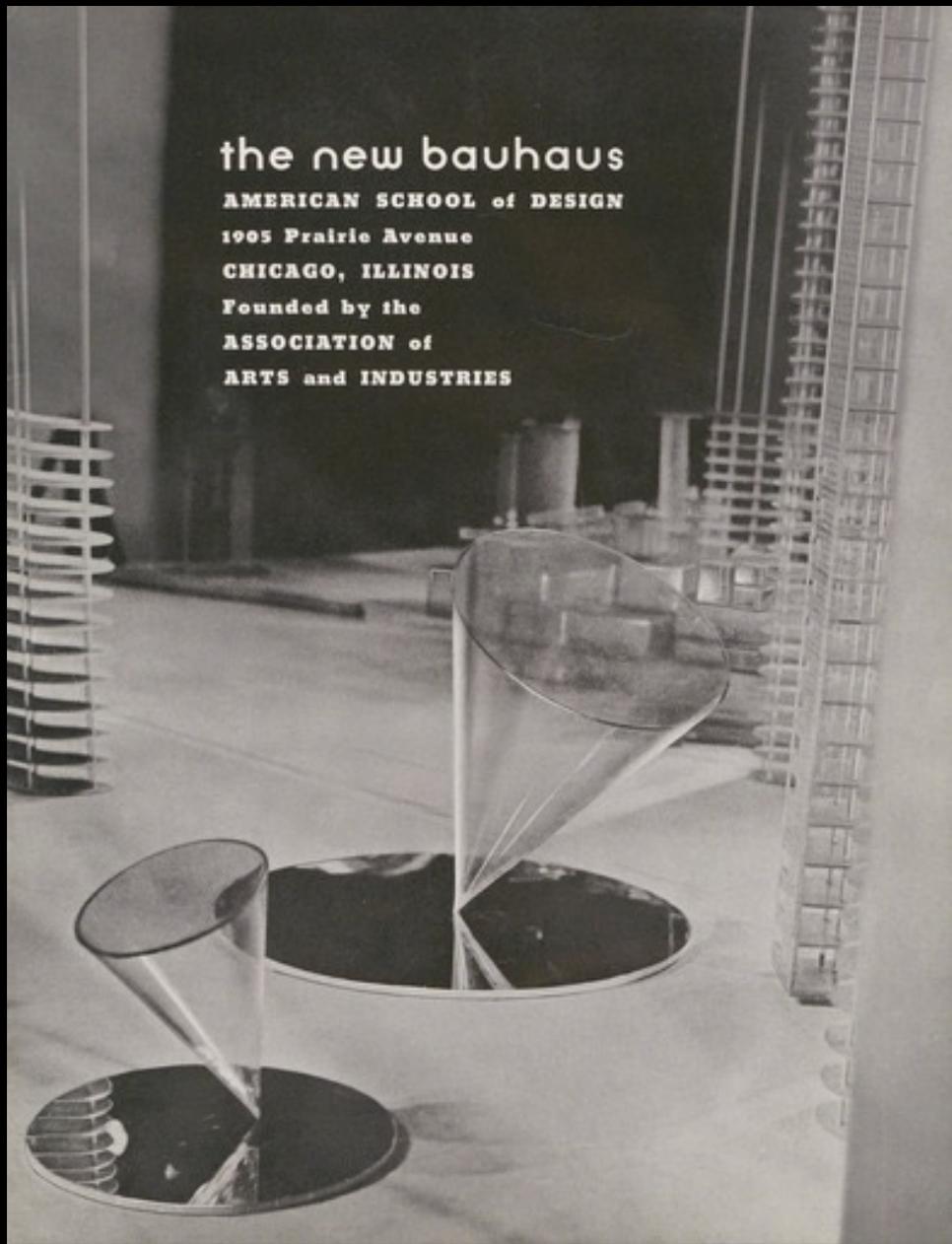
SECOND FLOOR

- | | |
|-------------------|----------------|
| 1 hall | 6 guest room |
| 2 both | 7 child's room |
| 3 both | 8 bed alcove |
| 4 dressing room | 9 roof deck |
| 5 master bed-room | 10 sewing room |

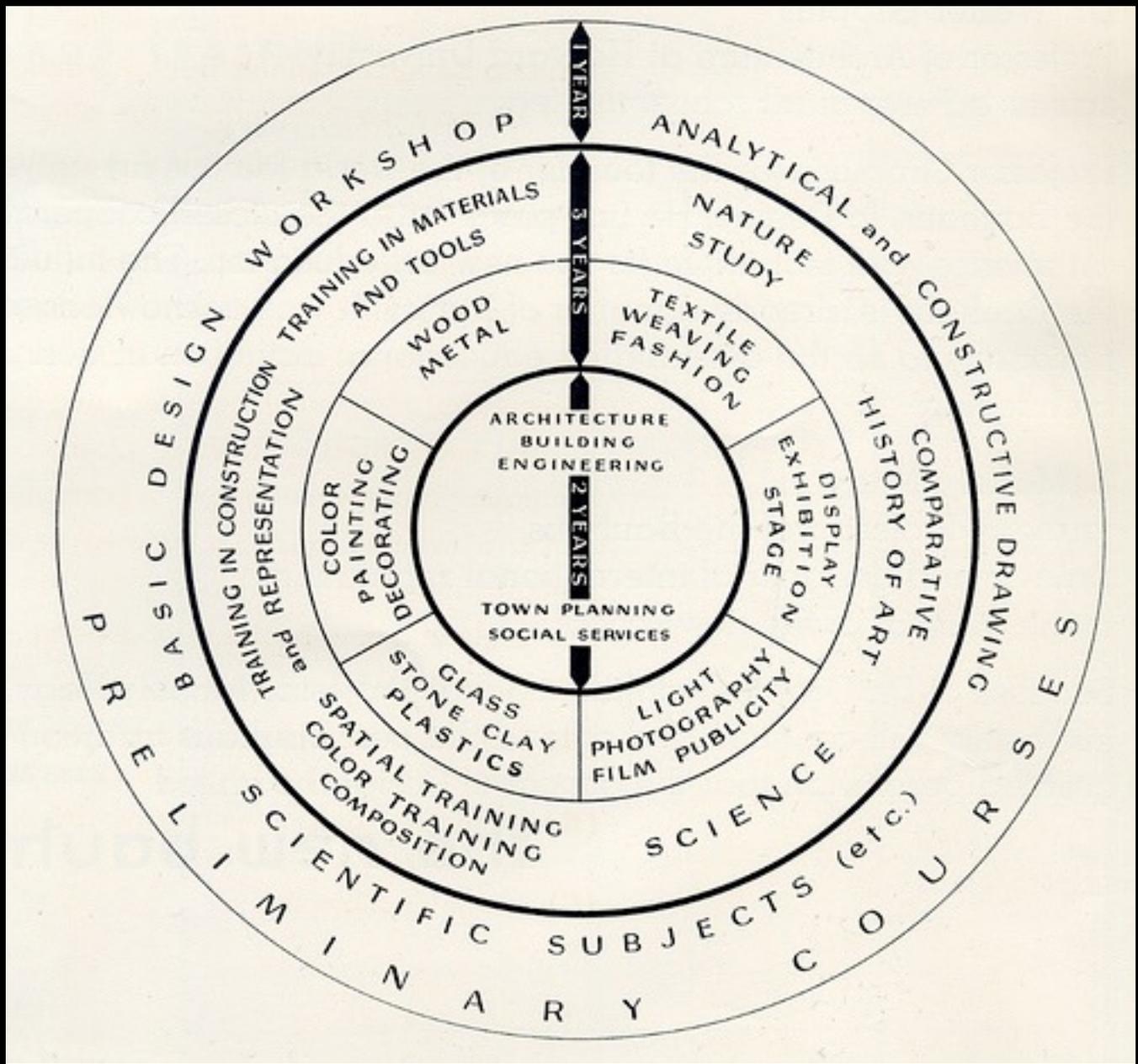


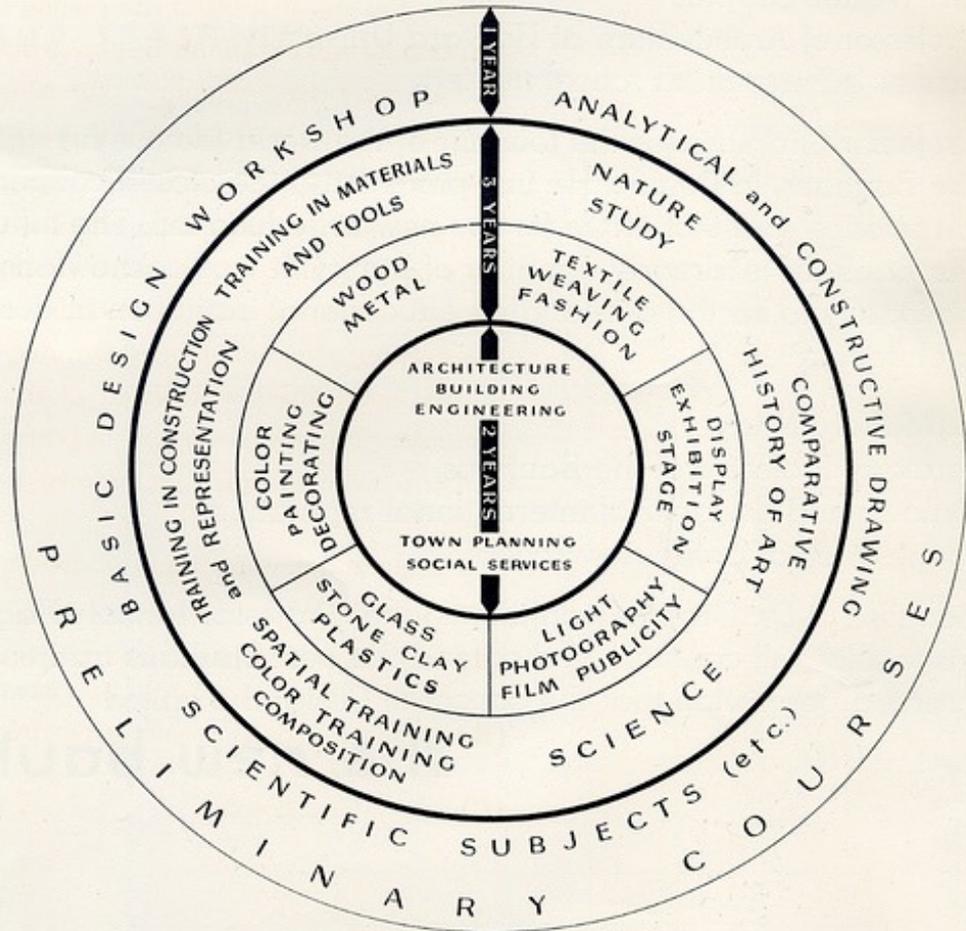
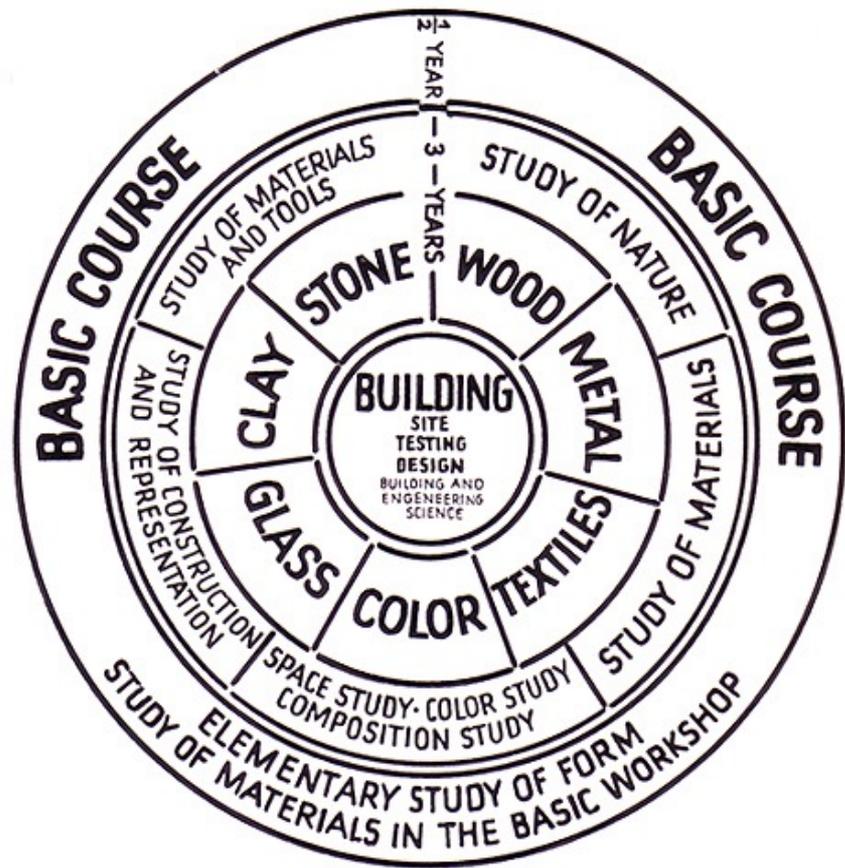


Institute of Design, Chicago, Illinois, 1937-39 – **New Bauhaus**
Director – László Moholy-Nagy
Former mansion of Marshall Field designed by Richard Morris Hunt









Mies van der Rohe
Head of the Architecture
School at Chicago's
Armour Institute of
Technology (later renamed
Illinois Institute of
Technology – IIT [New
Bauhaus]) 1937



Mies van der Rohe and Postwar
Modern Classicism



Project: Illinois Institute of Technology, Chicago, 1940. Final scheme

Mies van der Rohe, Illinois Institute of Technology, Chicago, Illinois, 1939-1956



Crown Hall

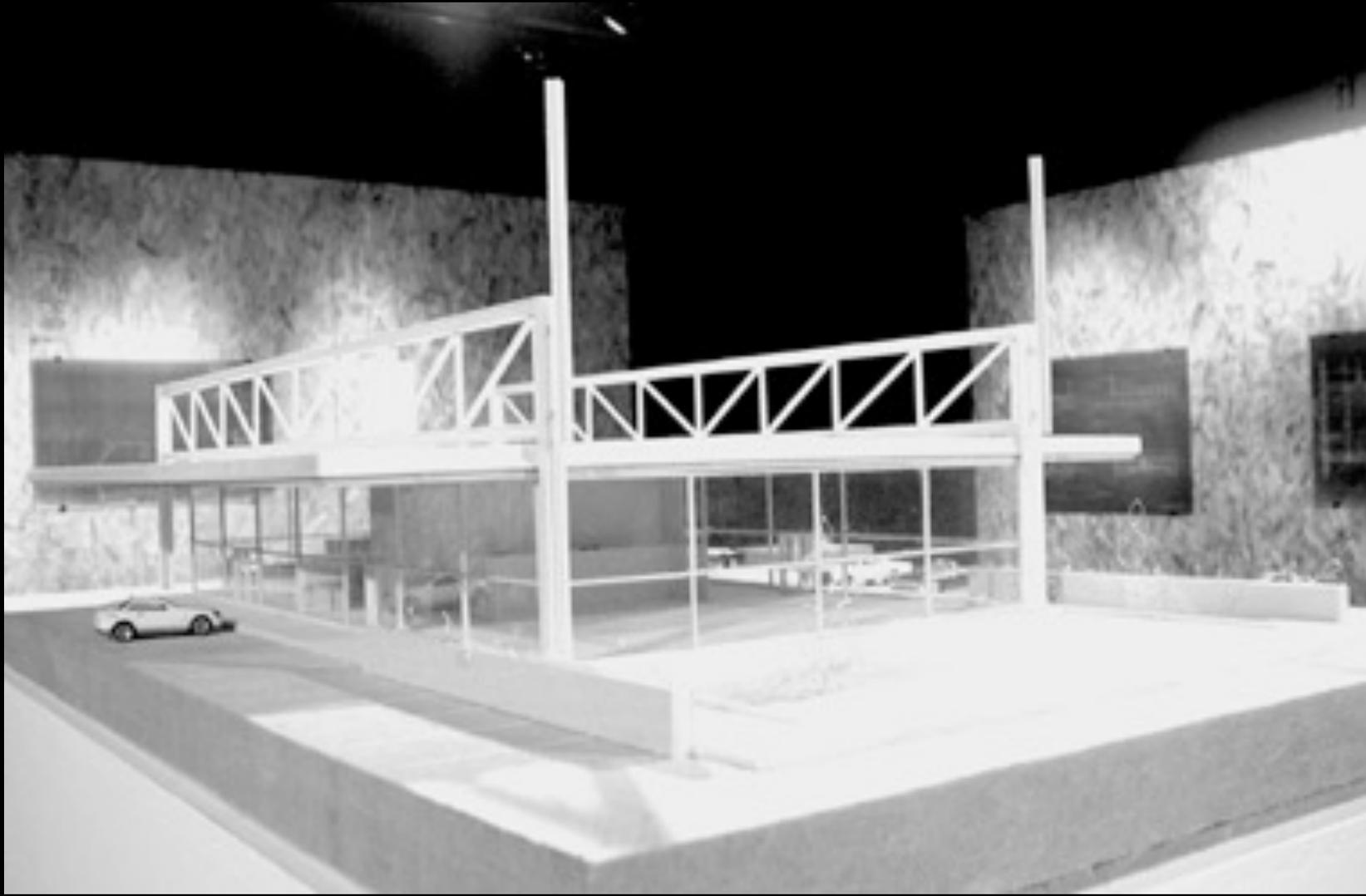
The two-level building is configured as a pure rectangular form, 220' by 120' by 24 feet high, enclosing a column free interior space on the upper level sitting above a sunken lower level. Four steel plate girders welded to eight H-columns form the primary structure from which the roof has been suspended.

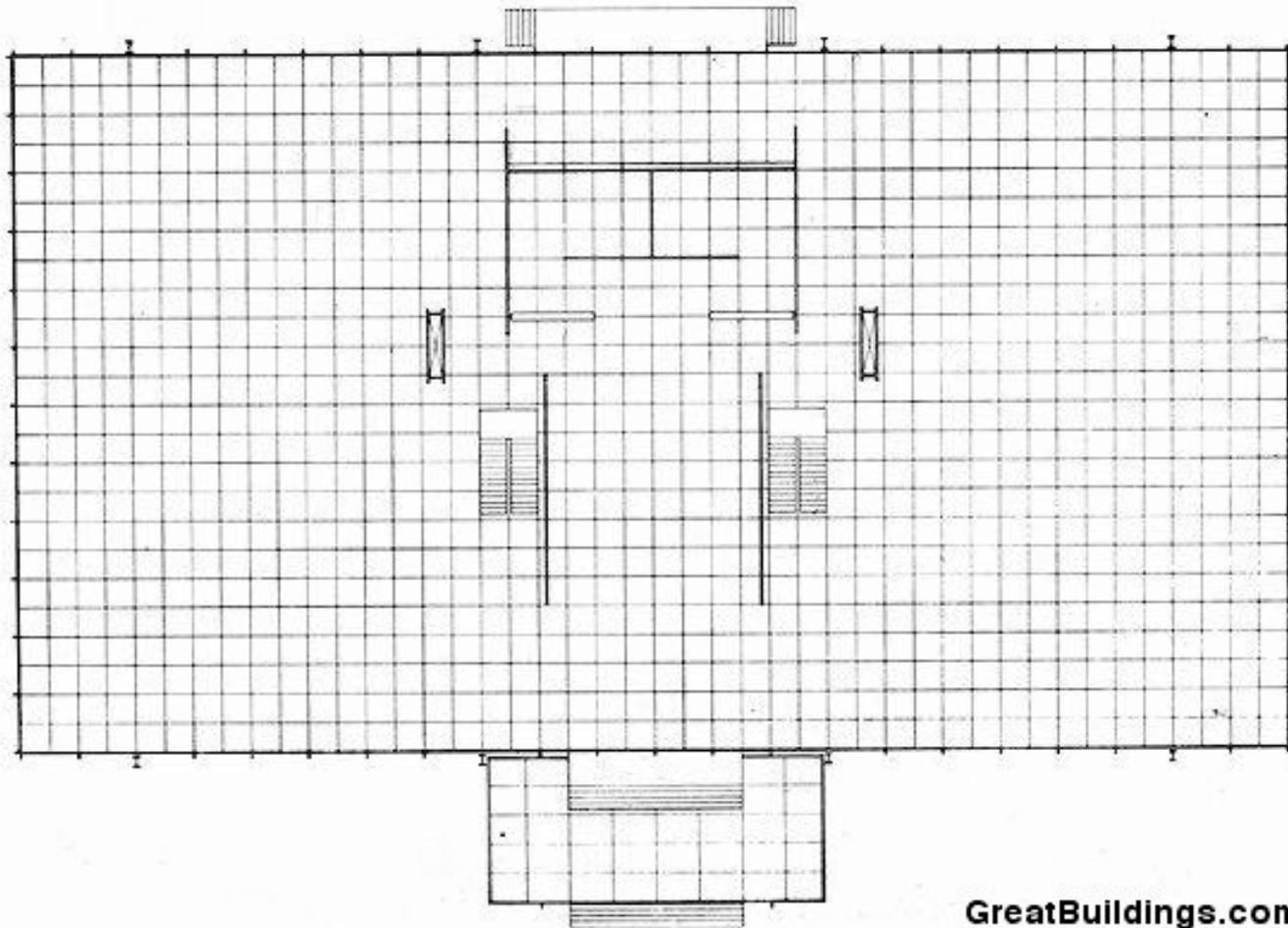


...This design was derived from a drive-in restaurant Mies had recently built, the Cantor Drive-In Restaurant that was constructed in 1945.



Mies van der
Rohe, Project
for Cantor
Drive-In,
Indianapolis,
Indiana, 1940





GreatBuildings.com

Crown Hall is characterized by an aesthetic of industrial simplicity, with clearly articulated exposed steel frame construction.

Universal Space

Crown Hall, plan first floor

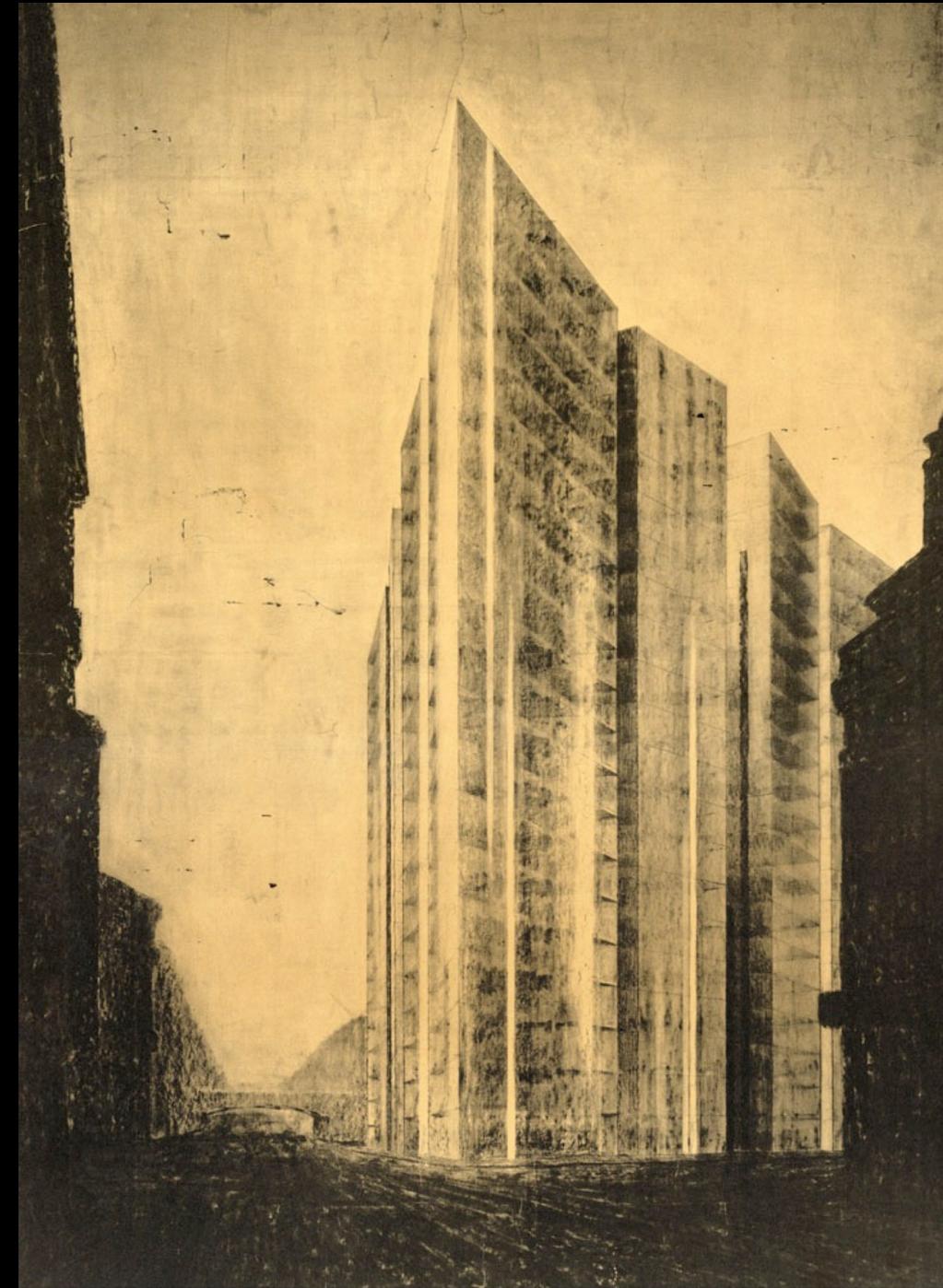


The steel frame is infilled with large sheets of glass of varying qualities of transparency, resulting in a light and delicate steel and glass facade wrapping the open plan, free flowing interior of the upper level. While the lower level consists of compartmentalized rooms, the high upper floor level, occupying almost 50% of the total area of the building, is dedicated to a single glass-enclosed architecture studio space. Mies called it a "universal space", intended to be entirely flexible in use.

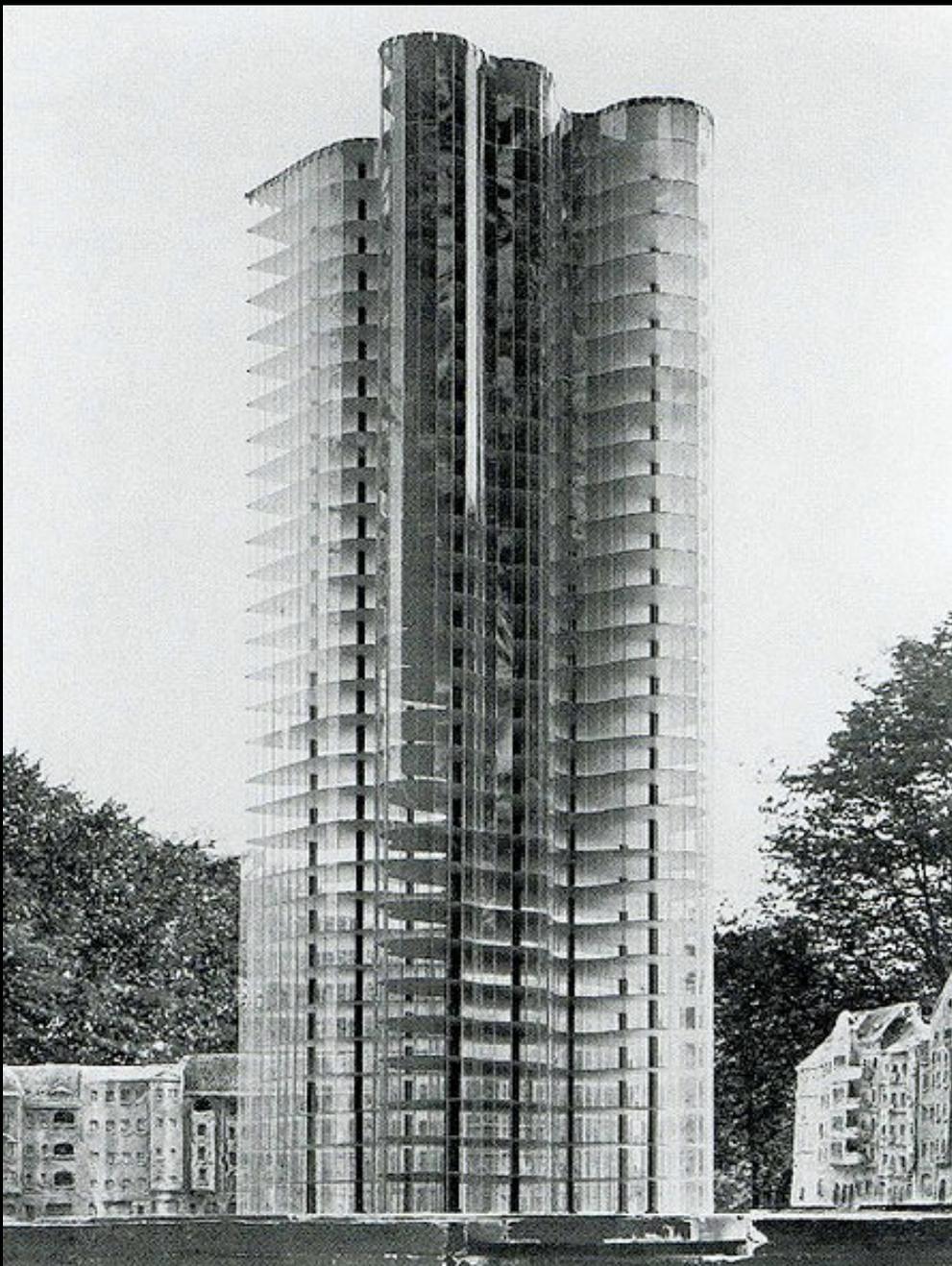




Mies van der Rohe, 860-
880 Lake Shore Drive,
Chicago, Illinois, 1949-51



Ludwig Mies van der Rohe, Project for an Office building in the Freidrichstrasse, Berlin, 1919-1921



Mies van der Rohe, Model for a Glass Skyscraper, 1922





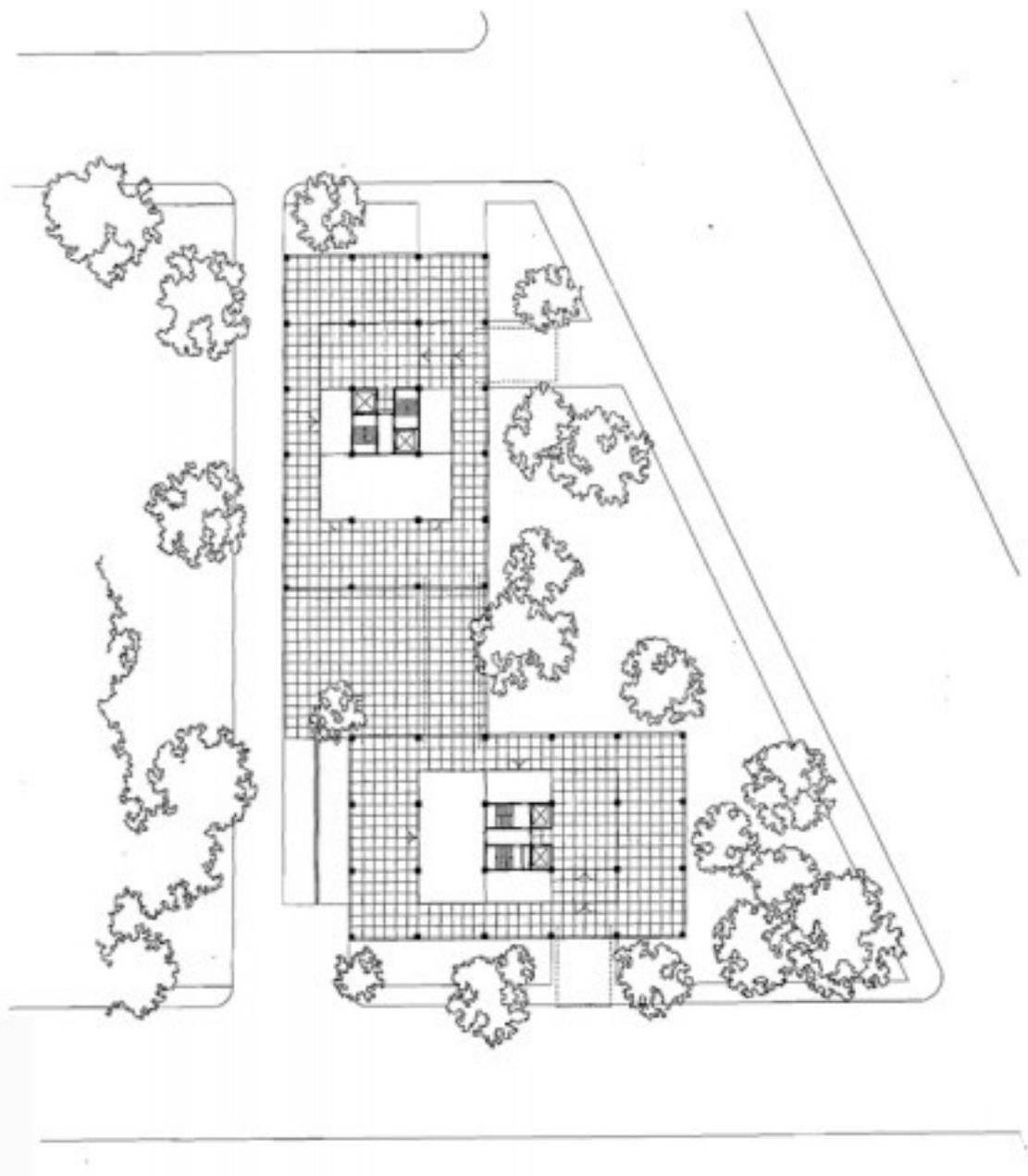


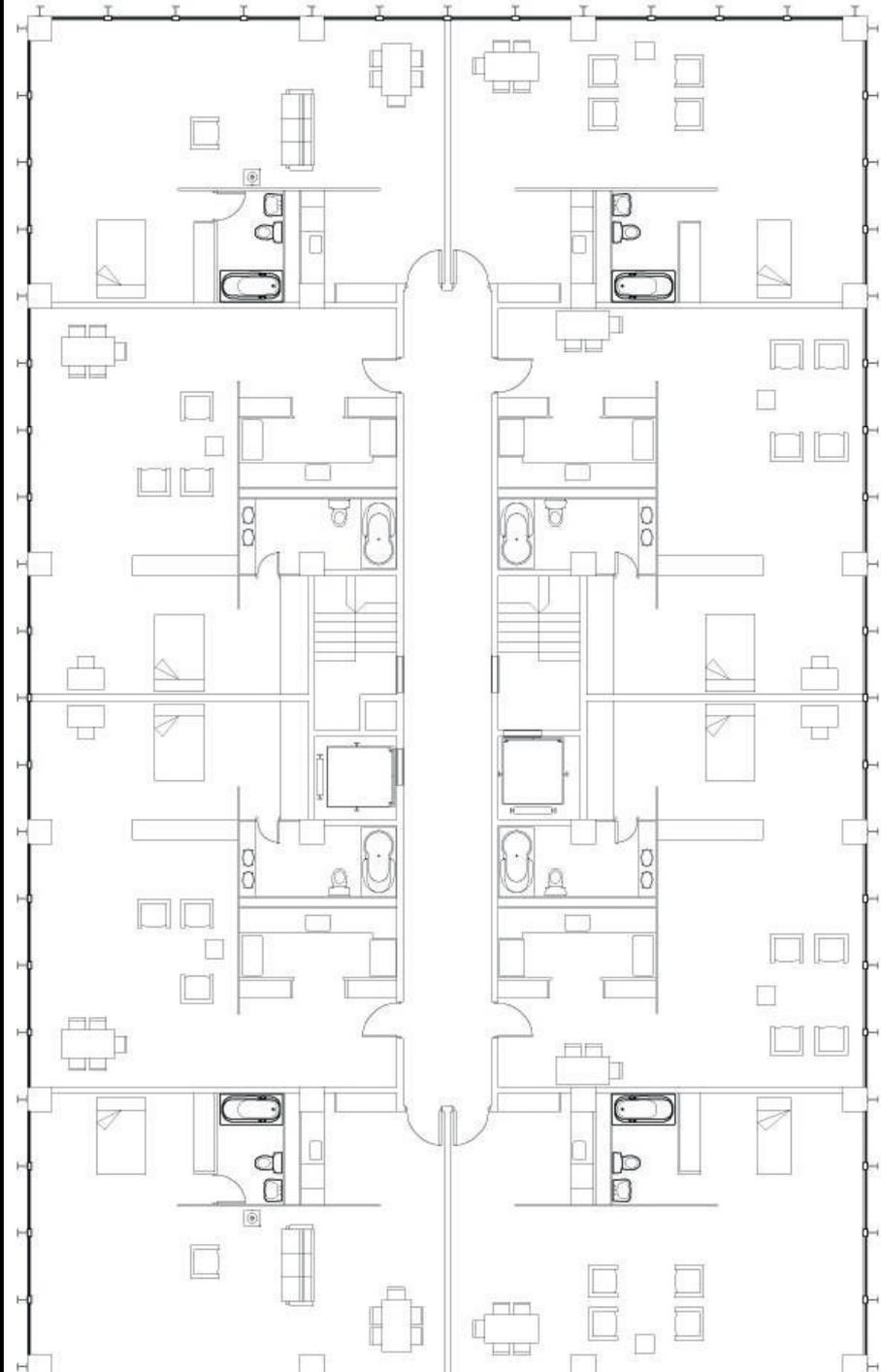
Mies explains how the mullions do not violate his less is more philosophy in an 1960 interview: "To me structure is something like logic. It is the best way to do things and express them".

TECTONIC

BEKLEIDUNG

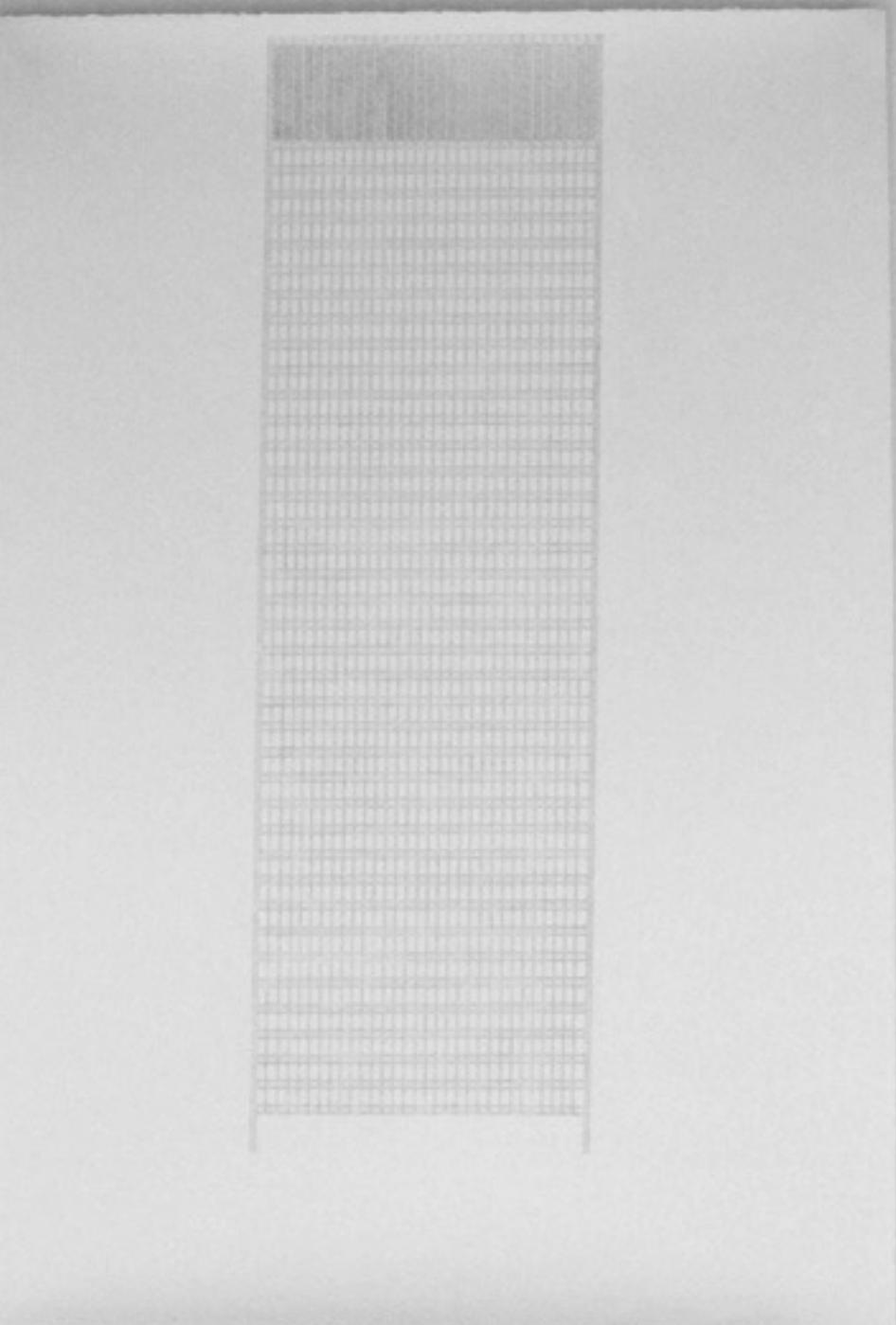








Mies van der Rohe, Seagram Building, New York, 1958



beinahe nichts

Lucas Soi, Untitled (Seagram Building, after Mies van der Rohe), 2011; ink on paper





- Built of a steel frame from which non-structural glass walls were hung.
- Mies preferred the steel frame to be visible to all
- American building codes required that all structural steel be covered in a fireproof material, usually concrete for reasons of fire
- Concrete hid the structure of the building — something Mies wanted to avoid at all costs — so Mies used non-structural bronze-toned beams to suggest structure instead. They are visible from the outside of the building, and run vertically, like mullions, surrounding the large glass windows.
- This method of construction using an interior reinforced concrete shell to support a larger non-structural edifice has since become commonplace.
- The building used 1,500 tons of bronze in its construction.
- On completion, the construction costs of Seagram made it the world's most expensive skyscraper at the time, due to the use of expensive quality materials and lavish interior decoration including bronze, travertine and marble.



Mies wanted the building to have a uniform appearance. Mies disliked the disordered irregularity when window blinds are drawn. Inevitably, people using different windows will draw blinds to different heights, making the building appear disorganized. To reduce this disproportionate appearance, Mies specified window blinds which only operated in three positions – fully open, halfway open/closed, or fully closed.

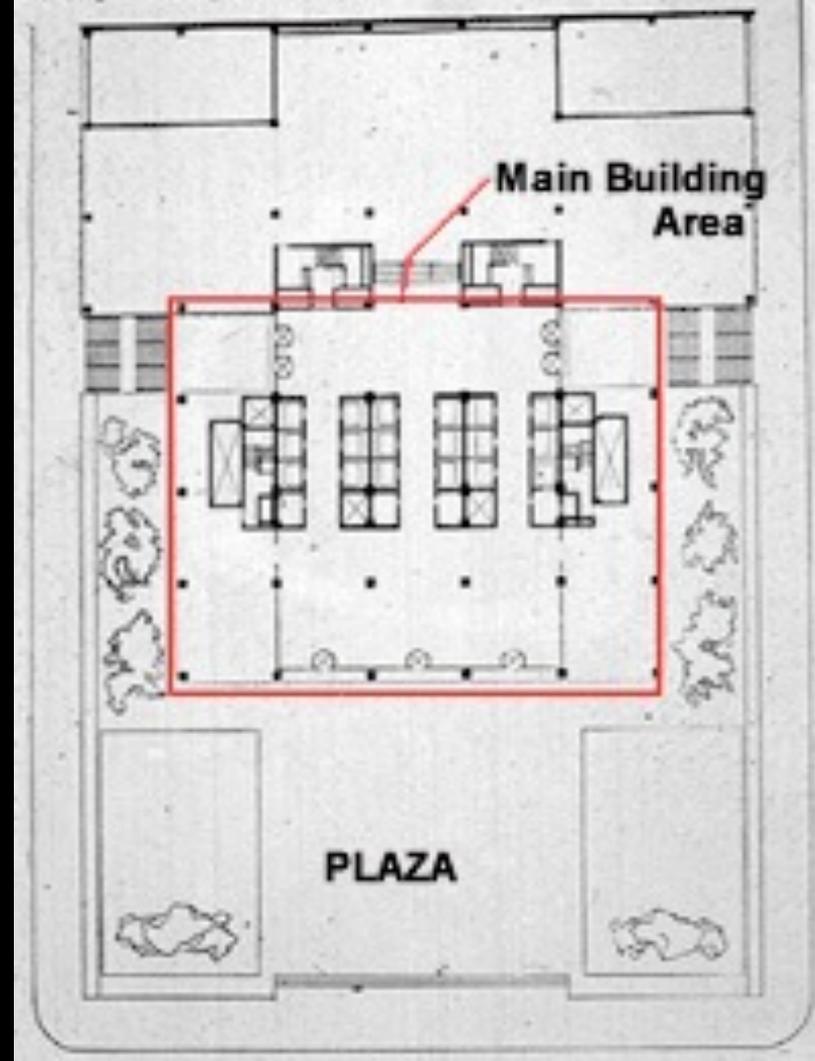








88. Seagram Building, Ground floor plan.



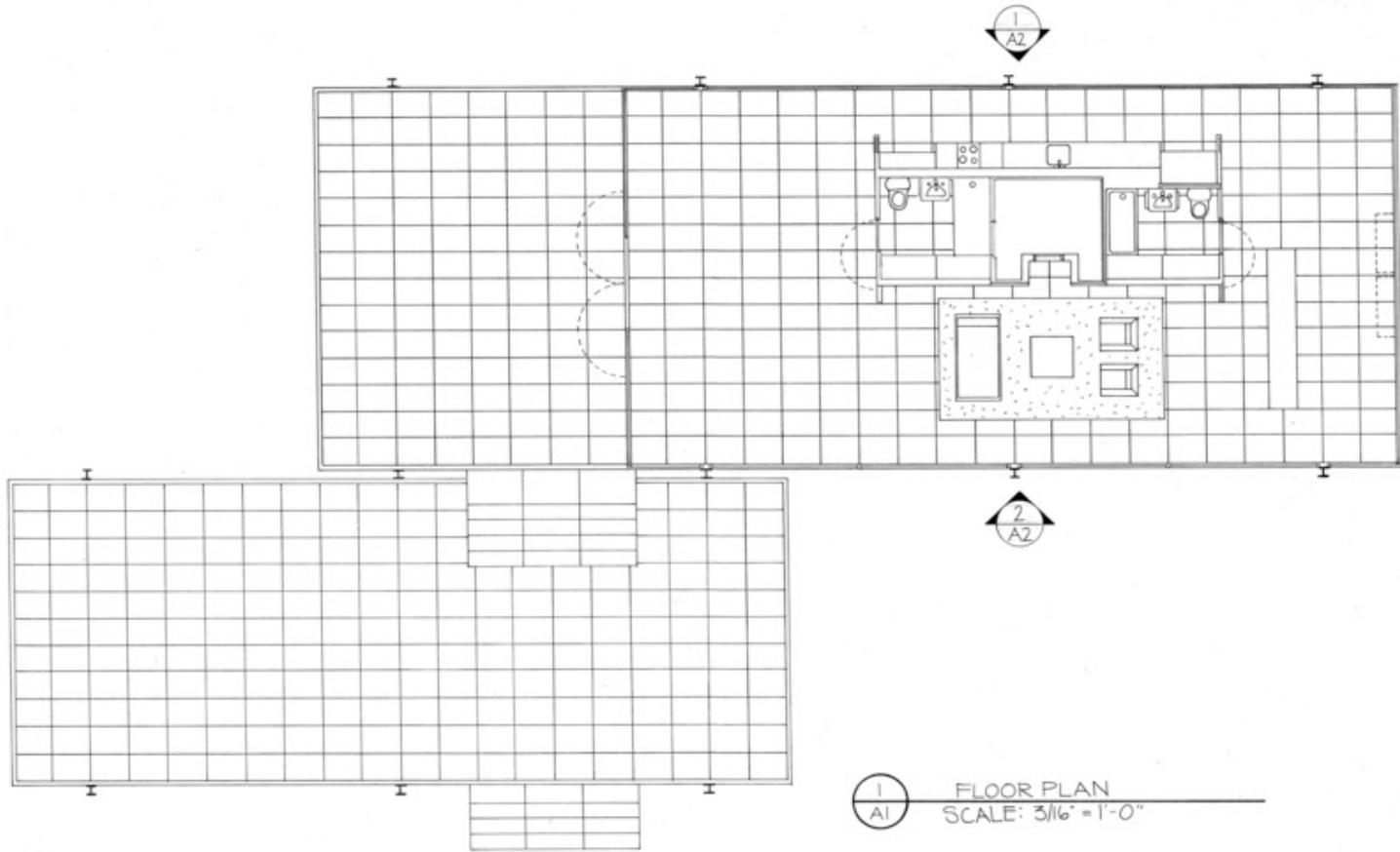


Mies van der Rohe, Farnsworth House, Plano, Illinois, 1945-51

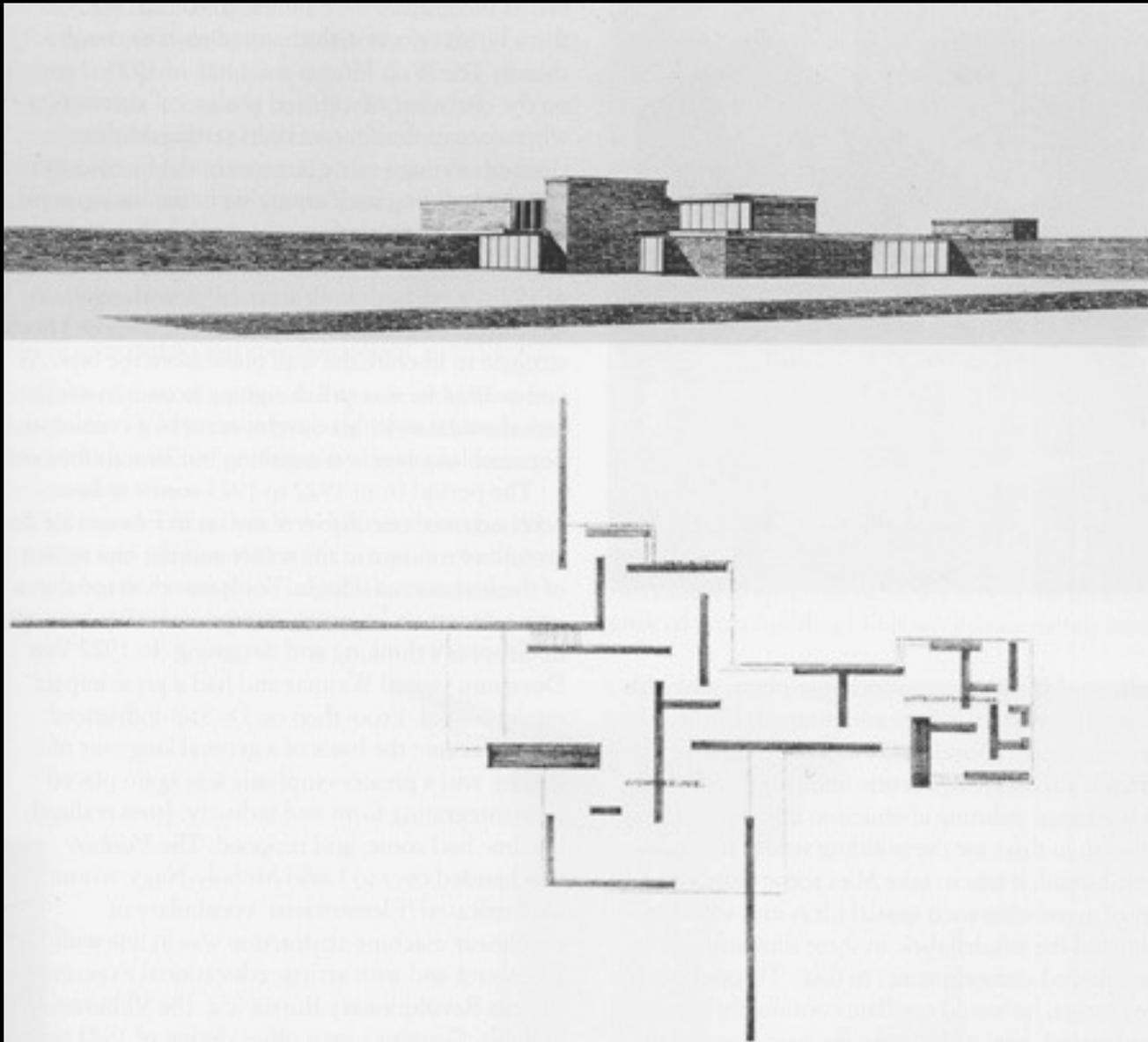


The extensive use of clear floor-to-ceiling glass opens the interior to its natural surroundings to an extreme degree. Two distinctly expressed horizontal slabs, which form the roof and the floor, sandwich an open space for living. The slab edges are defined by exposed steel structural members painted pure white. The house is elevated 5 feet 3 inches (1.60 m) above a flood plain by eight wide flange steel columns which are attached to the sides of the floor and ceiling slabs. The slabs' ends extend beyond the column supports, creating cantilevers. The house seems to float weightlessly above the ground it occupies. A third floating slab, an attached terrace, acts as a transition between the living area and the ground. The house is accessed by two sets of wide steps connecting ground to terrace and then to porch.

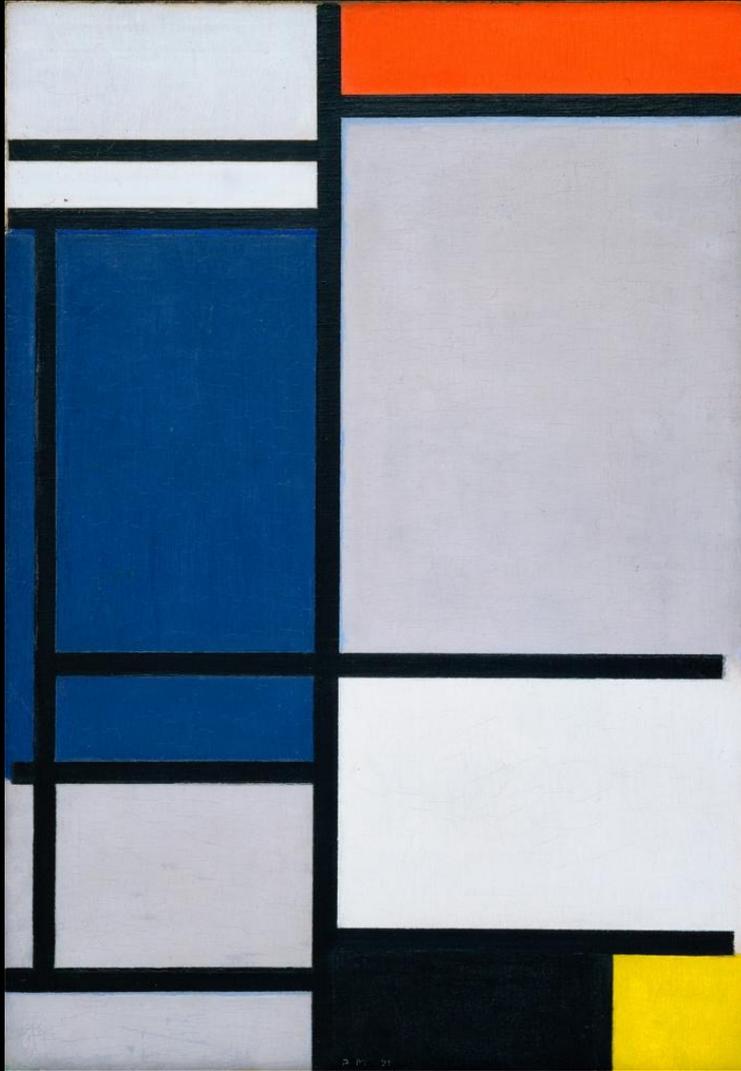





 FLOOR PLAN
 SCALE: $\frac{3}{16}'' = 1'-0''$



Mies van der Rohe,
Project for a Brick
Country House,
1923



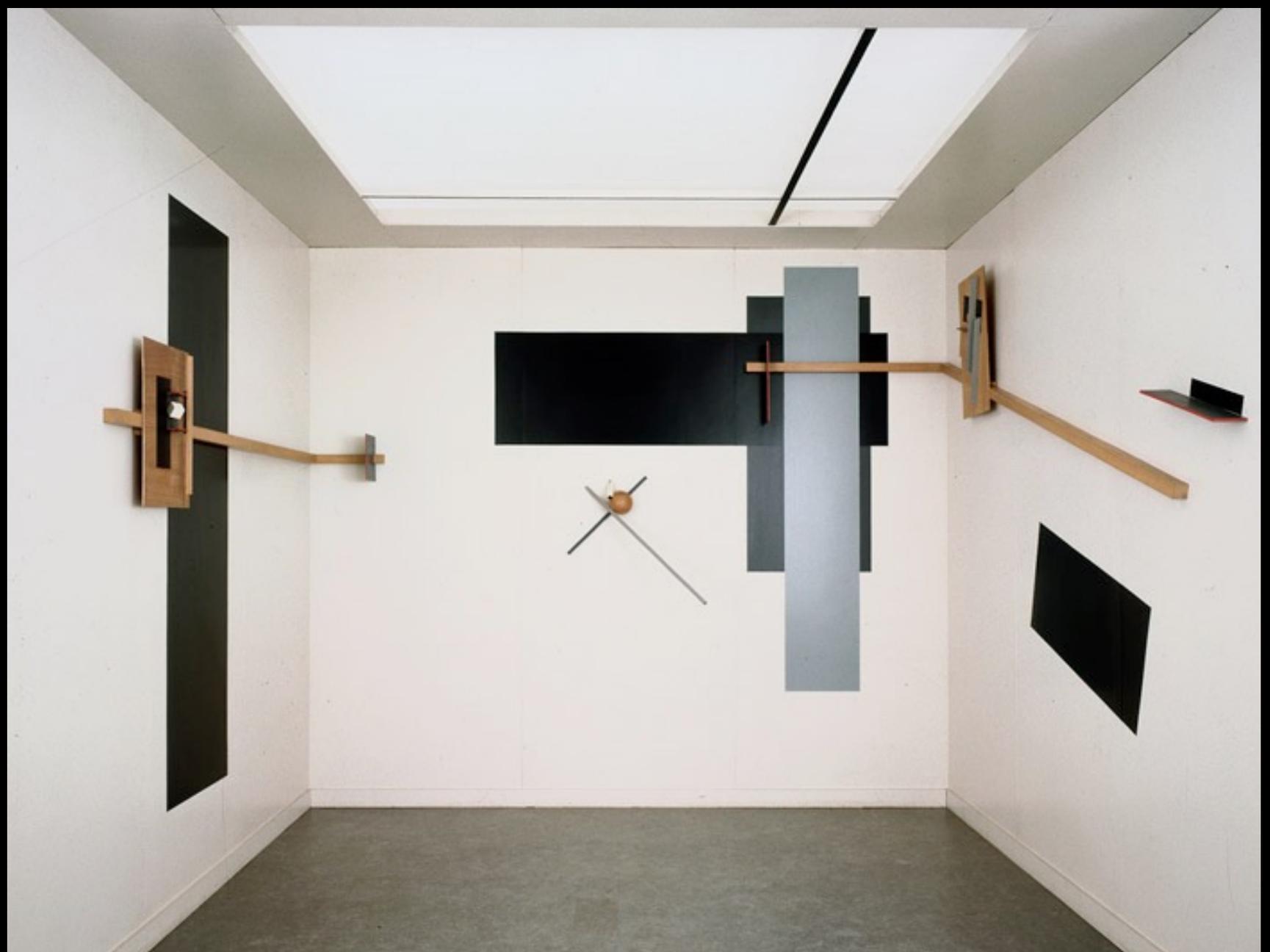
DUTCH DE STIJL

Mondrian, *Composition with Red, Blue, Black, Yellow, and Gray*, 1921

Neo-Plasticism



Gerrit Rietveld, Red-Blue
Chair, 1917-18



El Lissitzky, Proun Room, 1923, reconstruction 1971







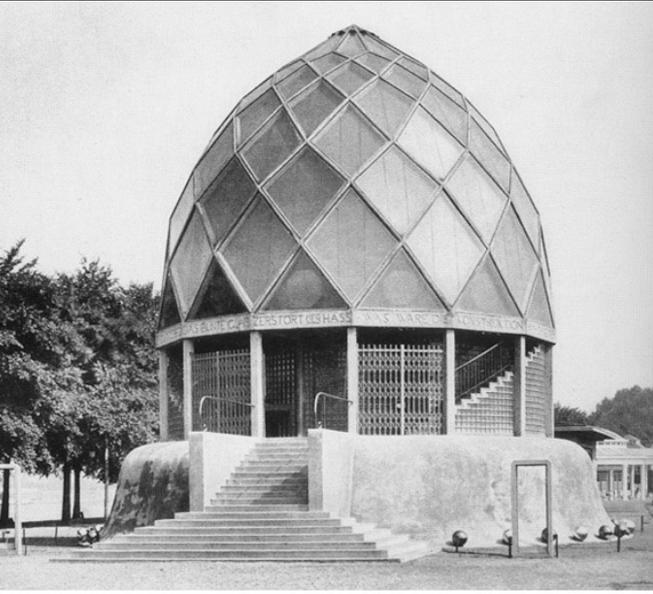
Philip Johnson
with Mies van der Rohe

Philip Johnson, Glass House, New Canaan, Connecticut, 1949









Bruno Taut,
Glass House,
Cologne, 1914

Glass Chain



- Bruno Taut "Glas"
- Gropius "Mass"
- Finsterlin "Prometh"
 - Max Taut
- Hans Scharoun
- Wassili Luckhardt

