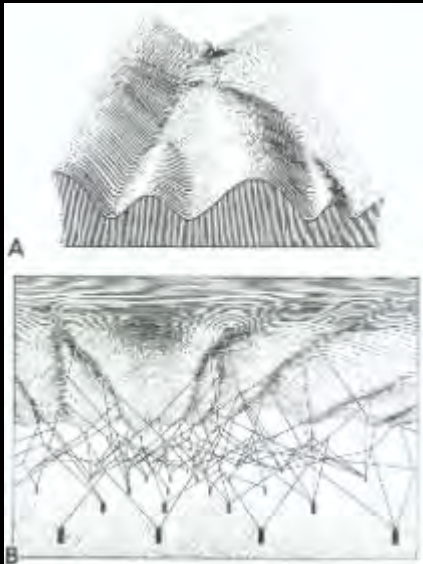


Edith Sitwell's hand holding a helical shell. (From 1958 Christmas card of Eve and Lance Whyte.)



Conrad Waddington, Epigenetic Landscape, 1957

**HUAS 6312-001
20537**

BIOS: Art, Architecture, Design, and Biology

Dr. Charissa N. Terranova

University of Texas at Dallas

Spring 2014

Monday 4:00-6:45

JO 3.532

Office Hours: Monday 1:00-4:00

Office Location: JO 3.920

Contact: terranova@utdallas.edu

02/10/2014

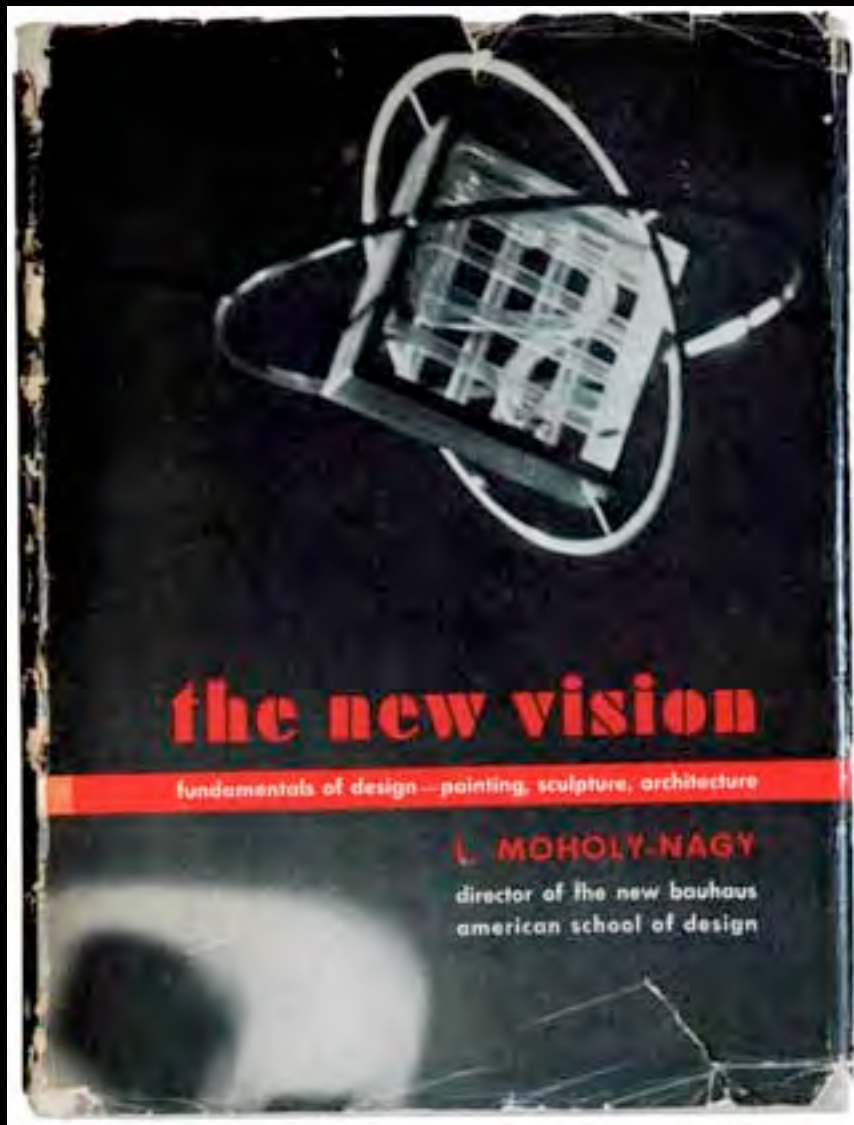
BIOFUNCTIONALISM



Laszlo Moholy-Nagy [1895-1946]

Photogram with Eiffel Tower and
Peg Top, by László Moholy-Nagy,
1928





Moholy-Nagy, *The New Vision*, 1930 (original German 1929] Moholy-Nagy, *Vision in Motion*, 1937

R.H. France
**Die Pflanze
als Erfinder**



Kosmos, Gesellschaft der Naturfreunde
Franck'sche Verlagshandlung-Stuttgart

“Die Pflanze als Erfinder” (The Plant as an Inventor), by Raoul Heinrich Francé, Kosmos, Stuttgart, 1920. It is a popular-scientific version of a more hefty volume -- “Die Technischen Leistungen der Pflanzen” (The Technical Achievements of Plants), Veit & Cie., Leipzig, 1919.



Raoul Francé, *Germes of Mind in Plants*, 1905 [*Das Sinnesleben der Pflanzen*]

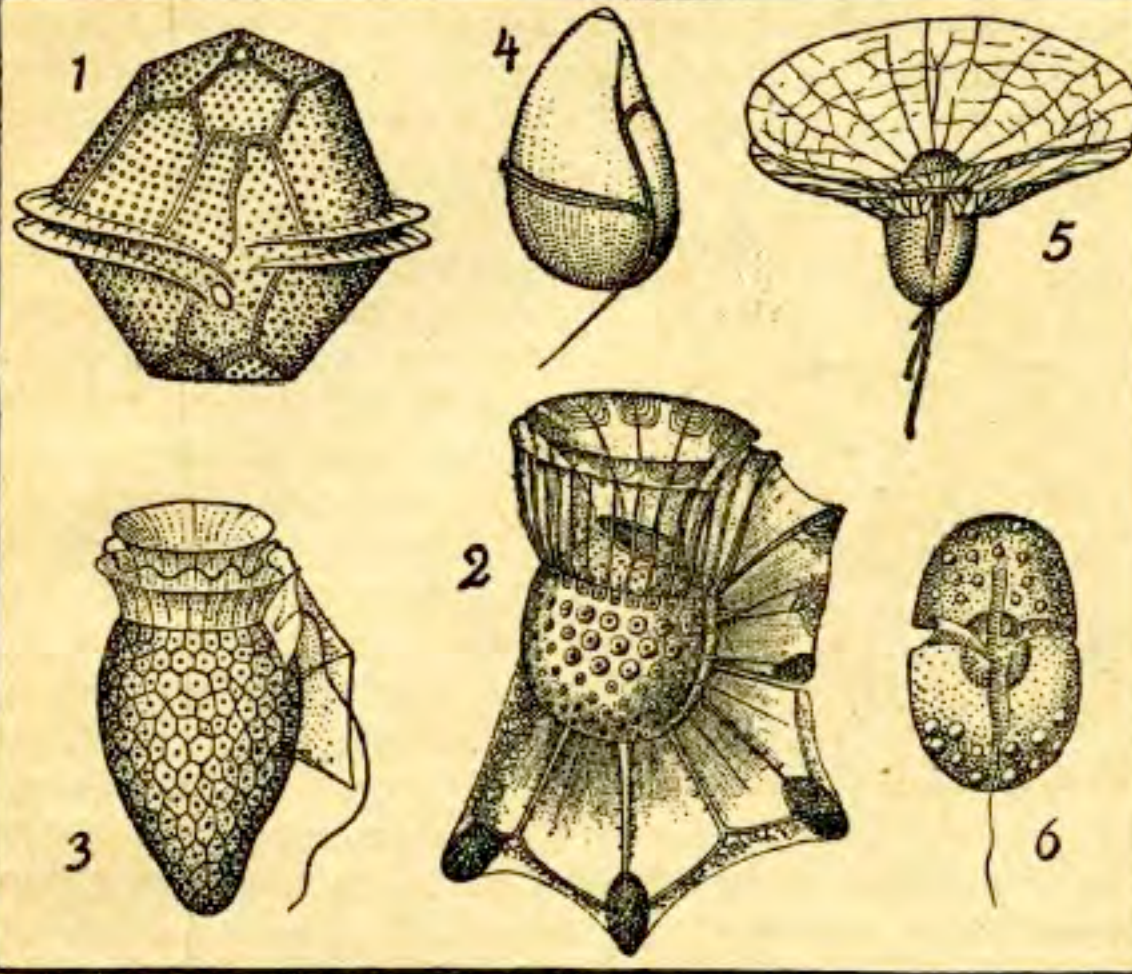


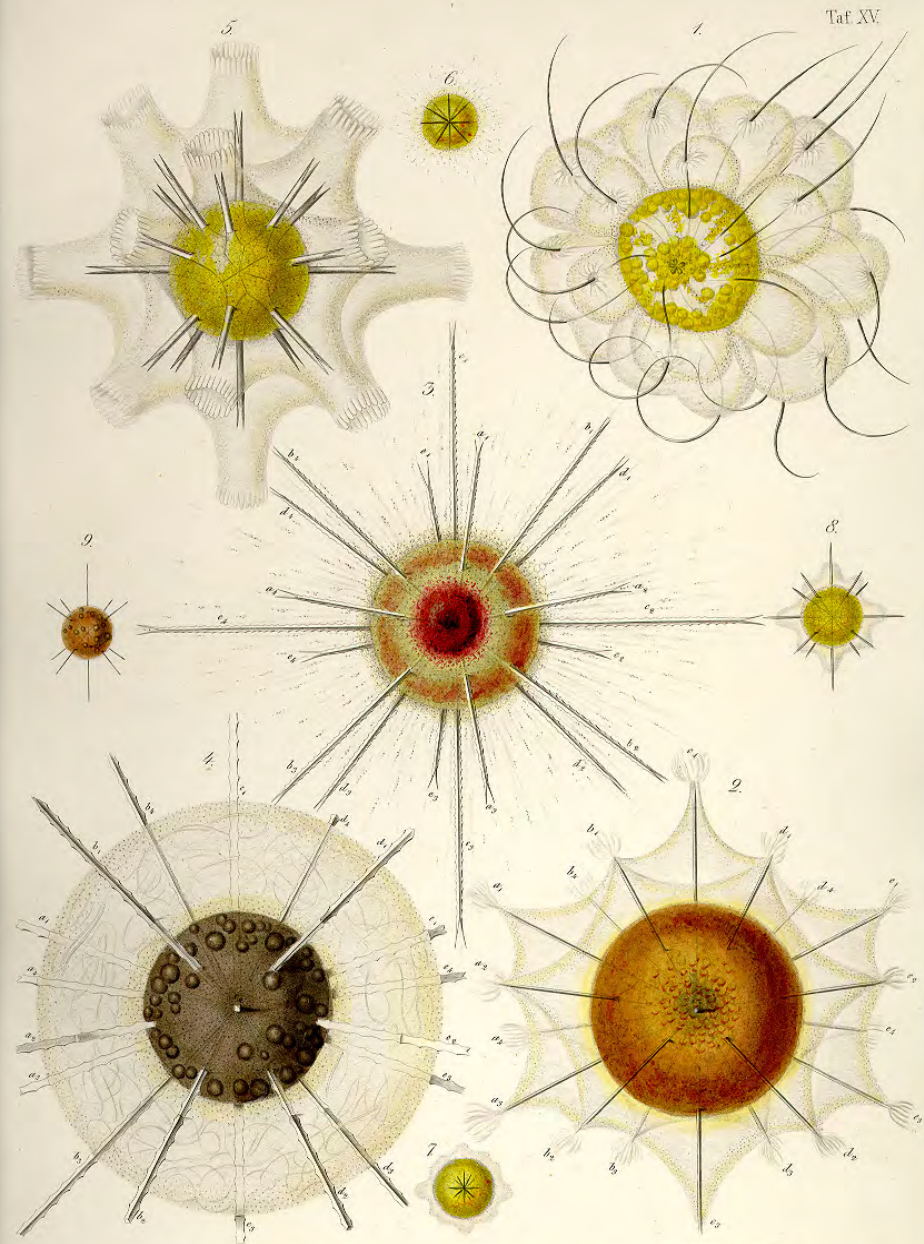
Fig. 128. The seven biotechnical elements: crystal, sphere, cone, plate, strip, rod, and spiral (screw).



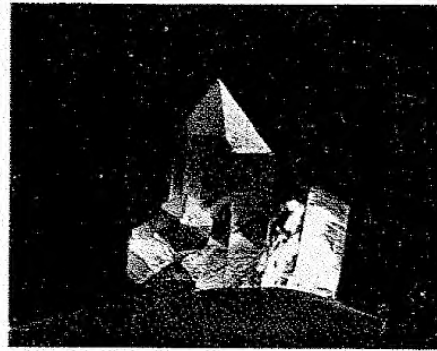
Abb. 11. Peridineen des Meeres, als natürliche Modelle von Turbineneinrichtungen.

1 *Goniodoma acuminatum*. 2 *Ornithocercus magnificus*. 3 *Dinophysis acuta*. 4 *Gymnodinium spirale*. 5 *Ornitho cercus splendidus*. 6 *Gymnodinium rhomboides*. (Nach Schütt.)

single-celled organisms interpreted as highly efficient turbines



1-9. Acanthometra. 1. *A. elastica*, Hk. 2. *A. bulbosa*, Hk. 3. *A. Müllerii*, Hk.
4. *A. fragilis*, Hk. 5. *A. brevispina*, Hk. 6-9. Acanthometrae juvenes.



DACHSTEINER QUARZ

+

KRISTALL

cristal

KUGEL

sphère

FLÄCHE

étendue

STAB

barre

BAND

ruban

SCHRAUBE

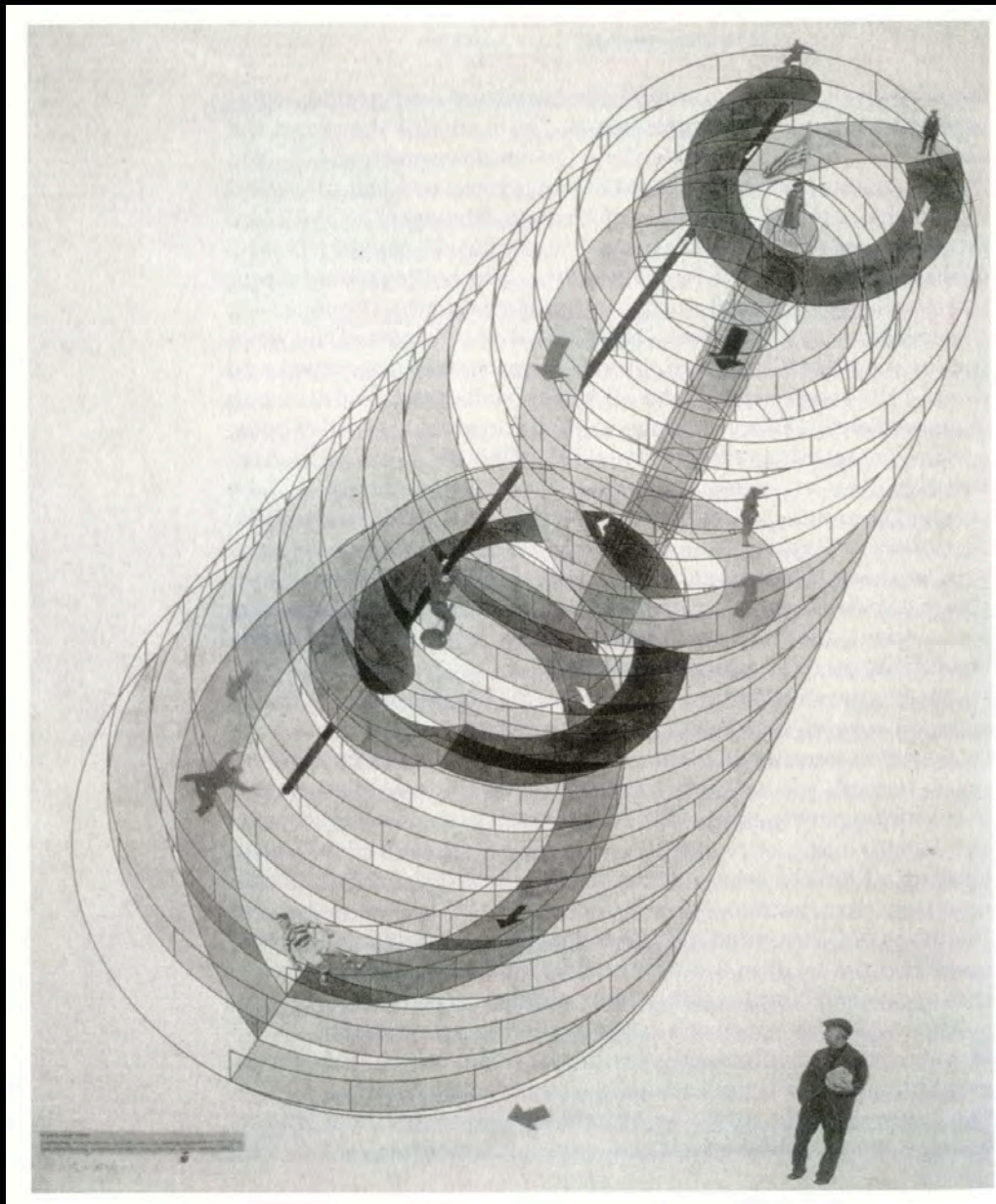
spirale

KEGEL

cône

dAS SIND DIE GRUNDLEGENDEN TECHNISCHEN FORMEN DER GANZEN WELT. SIE GENÜGEN SÄMTLICHEN VORGÄNGEN DES GESAMTEN WELT-PROZESSES, UM SIE ZU IHREM OPTIMUM ZU GELEITEN. ALLES, WAS IST, SIND WOHL KOMBINATIONEN DIESER SIEBEN URFORMEN. SIE SIND DAS GANZE UM UND AUF DER ARCHITEKTUR DER MASCHINENELEMENTE DER KRISTALLOGRAPHIE UND CHEMIE DER GEOGRAPHIE UND ASTRONOMIE DER KUNST JEDER TECHNIK JA DER GANZEN WELT.

Ce sont les formes techniques fondamentales de l'univers. Elles suffisent à toutes les opérations de la formation du monde pour les conduire à leur développement extrême. Tout ce qui est, est combinaison de ces sept formes primitives. C'est sur elles que reposent toute l'architecture, les éléments de la mécanique, la cristallographie, la chimie, la géographie, l'astronomie, l'art, toute technique et le monde entier.



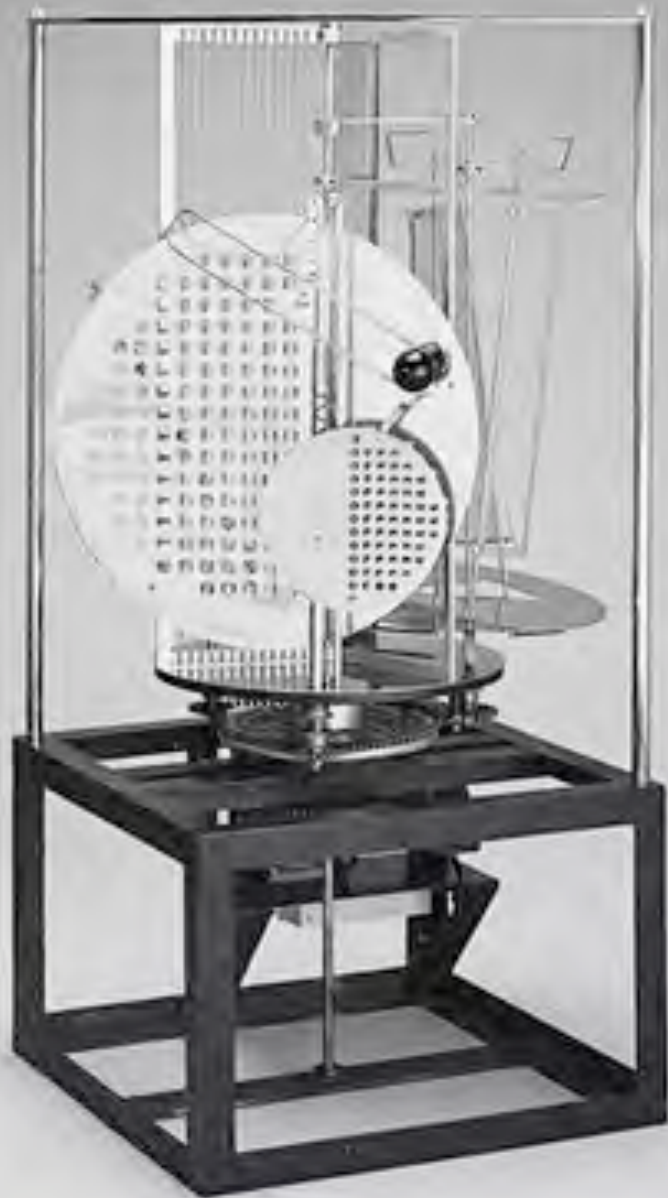
3. László Moholy-Nagy and István Sebők, "Kinetic-Constructive System: Structure with Movement Track for Play and Conveyance," 1922



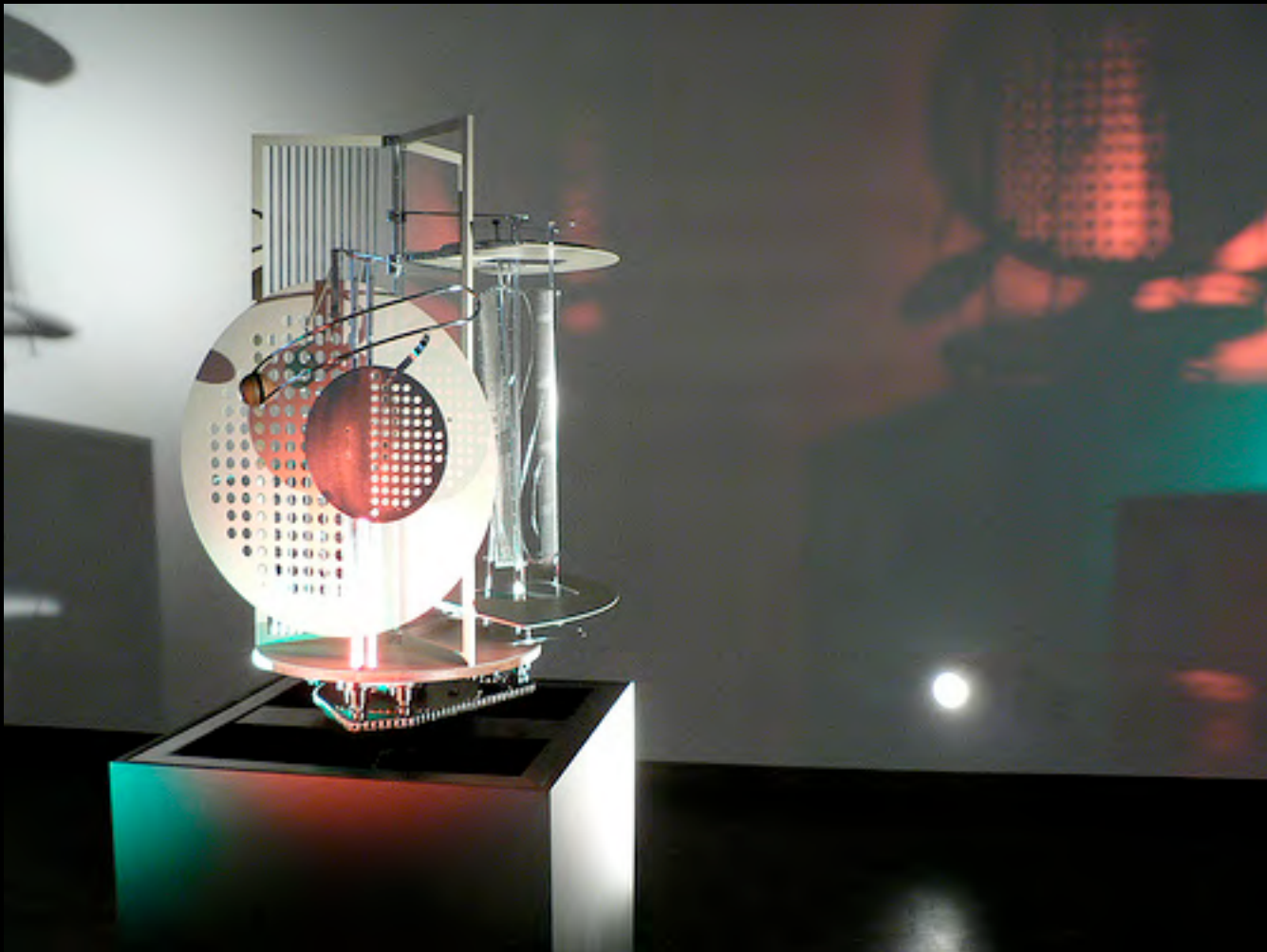
4. Vladimir Tatlin, Maquette of "The Monument to the Third International," 1919



5. Friedrich Schumann's tachistoscope c. 1900



6. Laszlo Moholy-Nagy,
Light-Space Modulator,
1923-30



Laszlo Moholy-Nagy, Light-Space Modulator, 1923-30
<https://www.youtube.com/watch?v=QYNO3DLIZe0>

Bauhaus: Weimar, Dessau, Berlin, Chicago 1919-1933

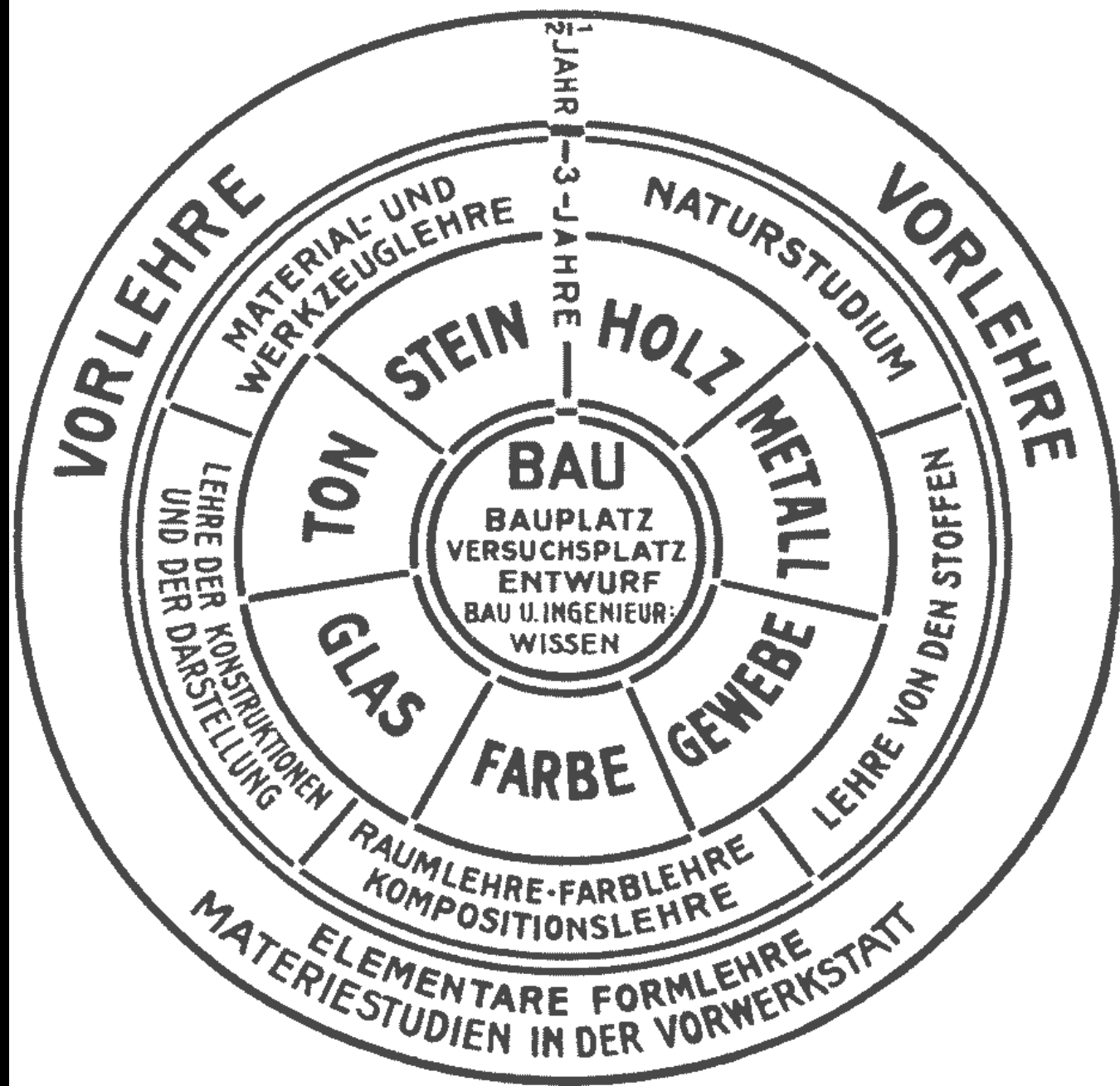
Cathedral and Craft

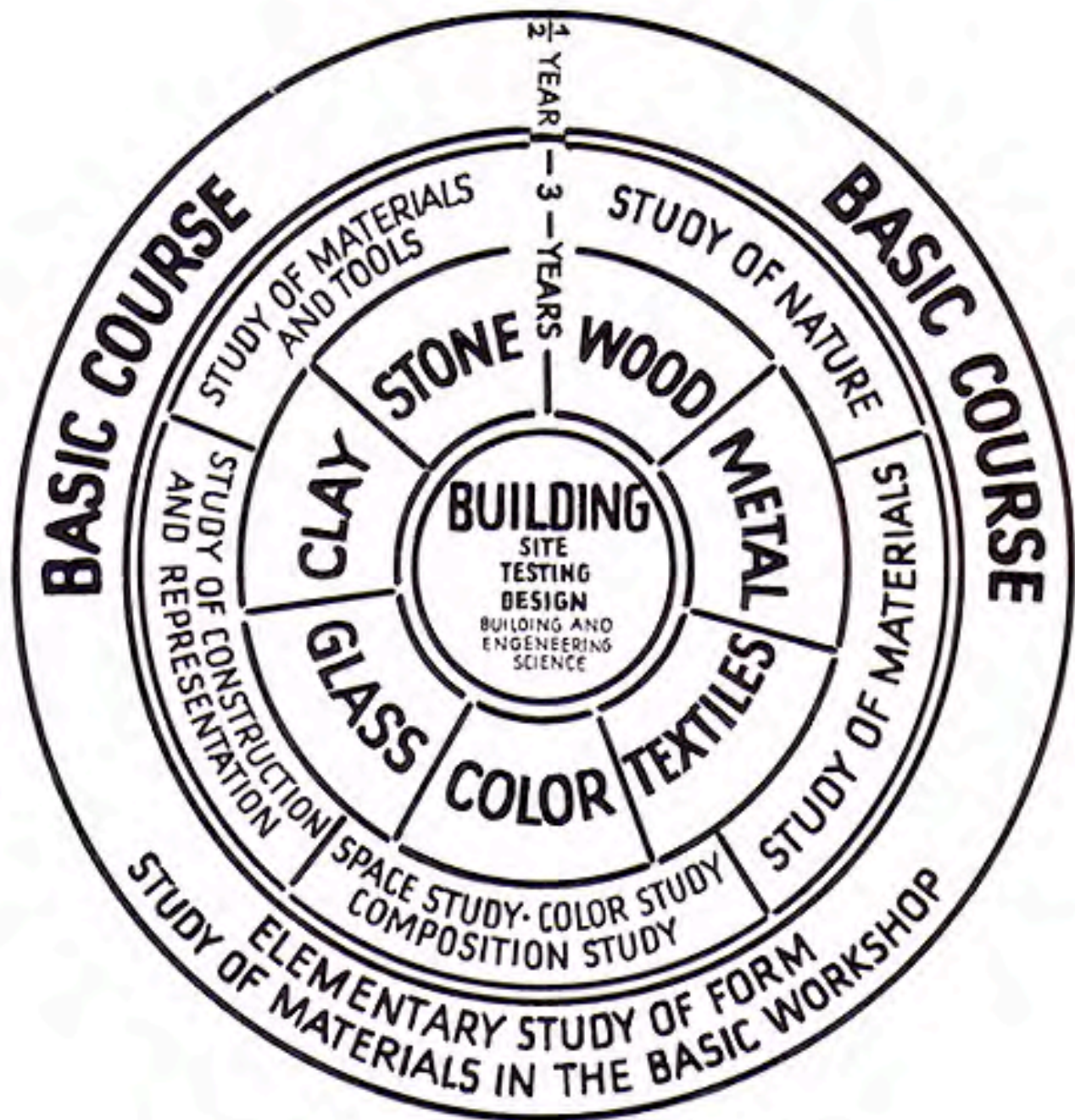


Let us create a new guild of craftsmen, without the class distinctions which raise an arrogant barrier between craftsman and artist. Together let us conceive and create the new building of the future, which will embrace architecture and sculpture and painting in one unity and which will rise one day toward heaven from the hands of a million workers like the crystal symbol of a new faith.

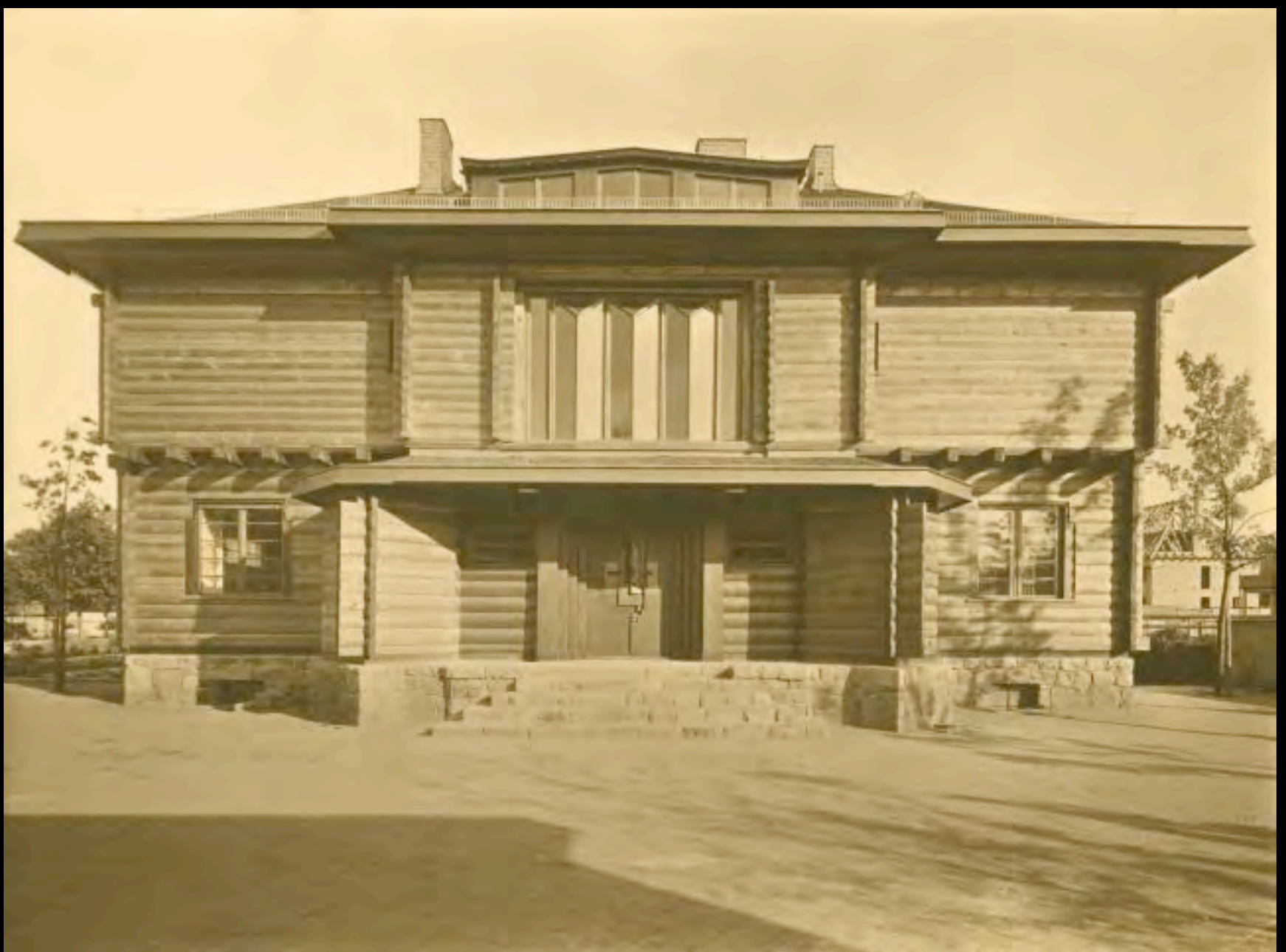
Proclamation of the Weimar Bauhaus, 1919

Lyonel Feininger, Cathedral – Frontispiece of First Bauhaus Manifesto, 1919





Bauhaus curriculum

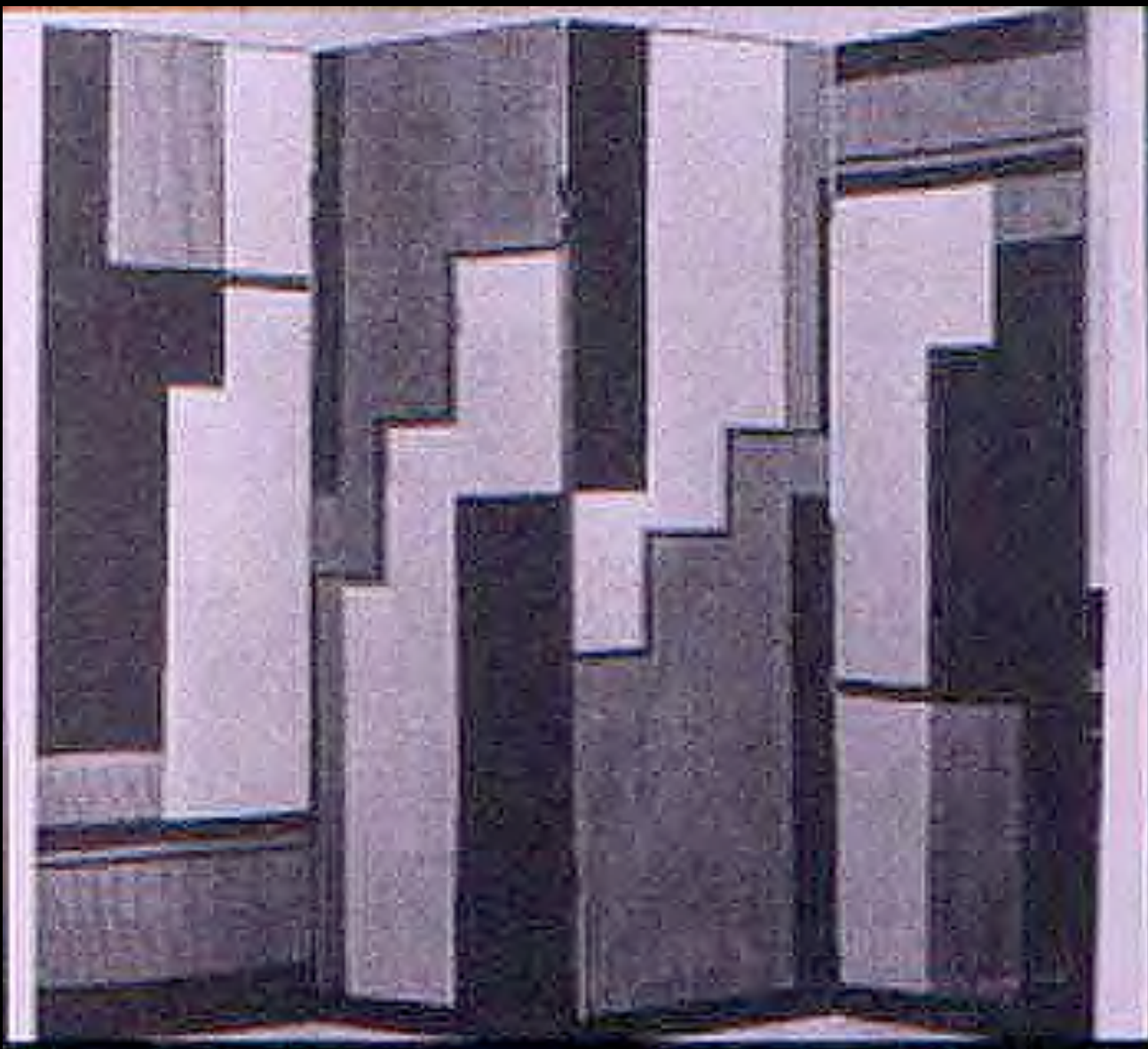


Walter Gropius and Adolf Meyer, Sommerfeld House, Berlin-Dahlem, 1921





Josef Albers, Window from Sommerfeld House



Dorte Helm, Folding screen from Sommerfeld House



Georg Muche and Adolf Meyer, Haus am Horn, Weimar, 1923

1.00. 1.00. 1.00. 1.00.
 2.00. 2.00. 2.00. 2.00.
 3.00. 3.00. 3.00. 3.00.
 4.00. 4.00. 4.00. 4.00.



1. OG.



2. OG.



3. OG.



2. OG.

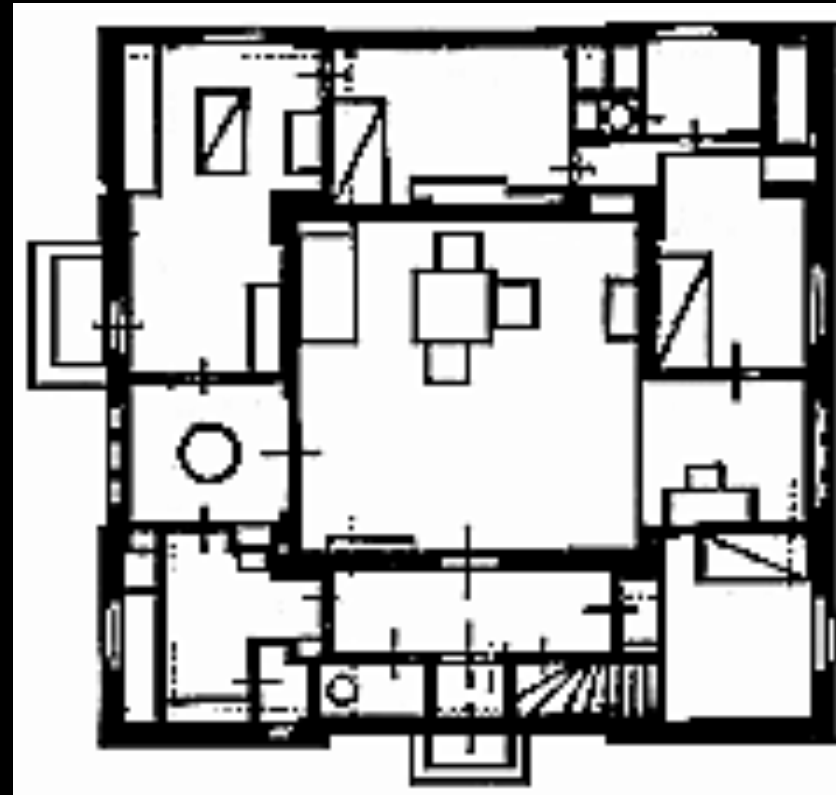


AUSSTELLUNG STAATL. BAUKUNST WEIMAR 1903.
EINFAMILIENHAUS.



1.00. 1.00. 1.00. 1.00.
 2.00. 2.00. 2.00. 2.00.
 3.00. 3.00. 3.00. 3.00.
 4.00. 4.00. 4.00. 4.00.

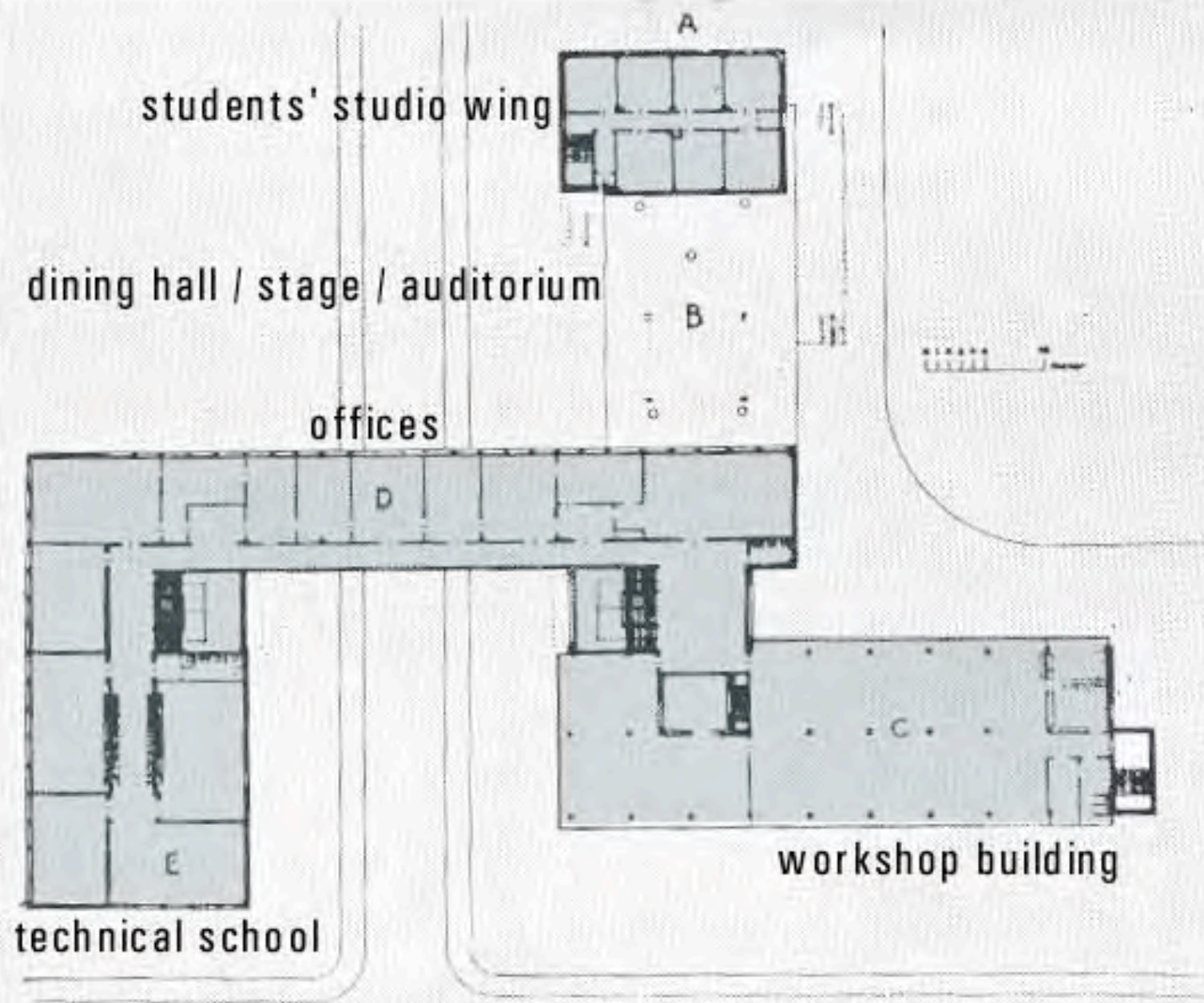


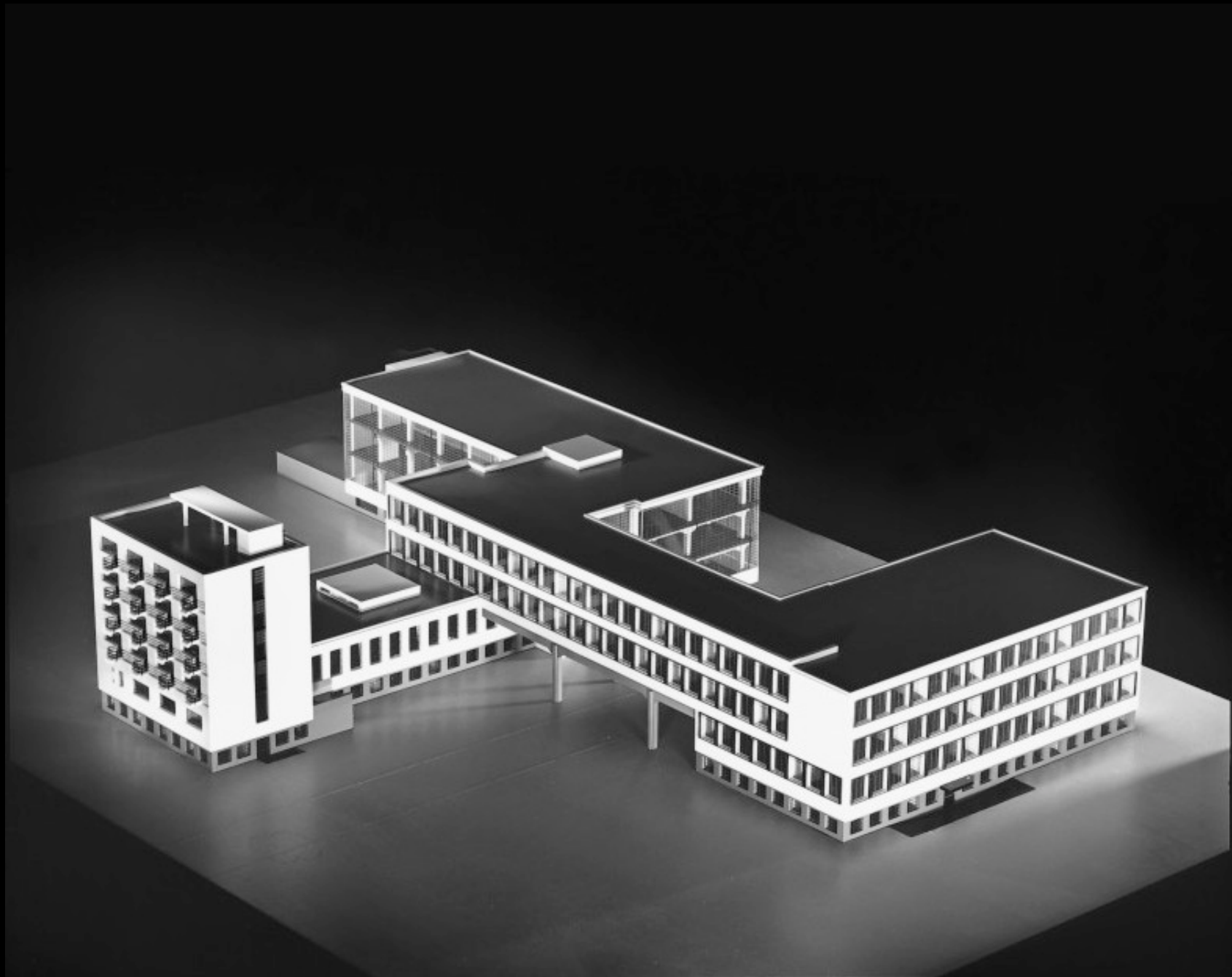






Walter Gropius, Bauhaus School, Dessau, 1926



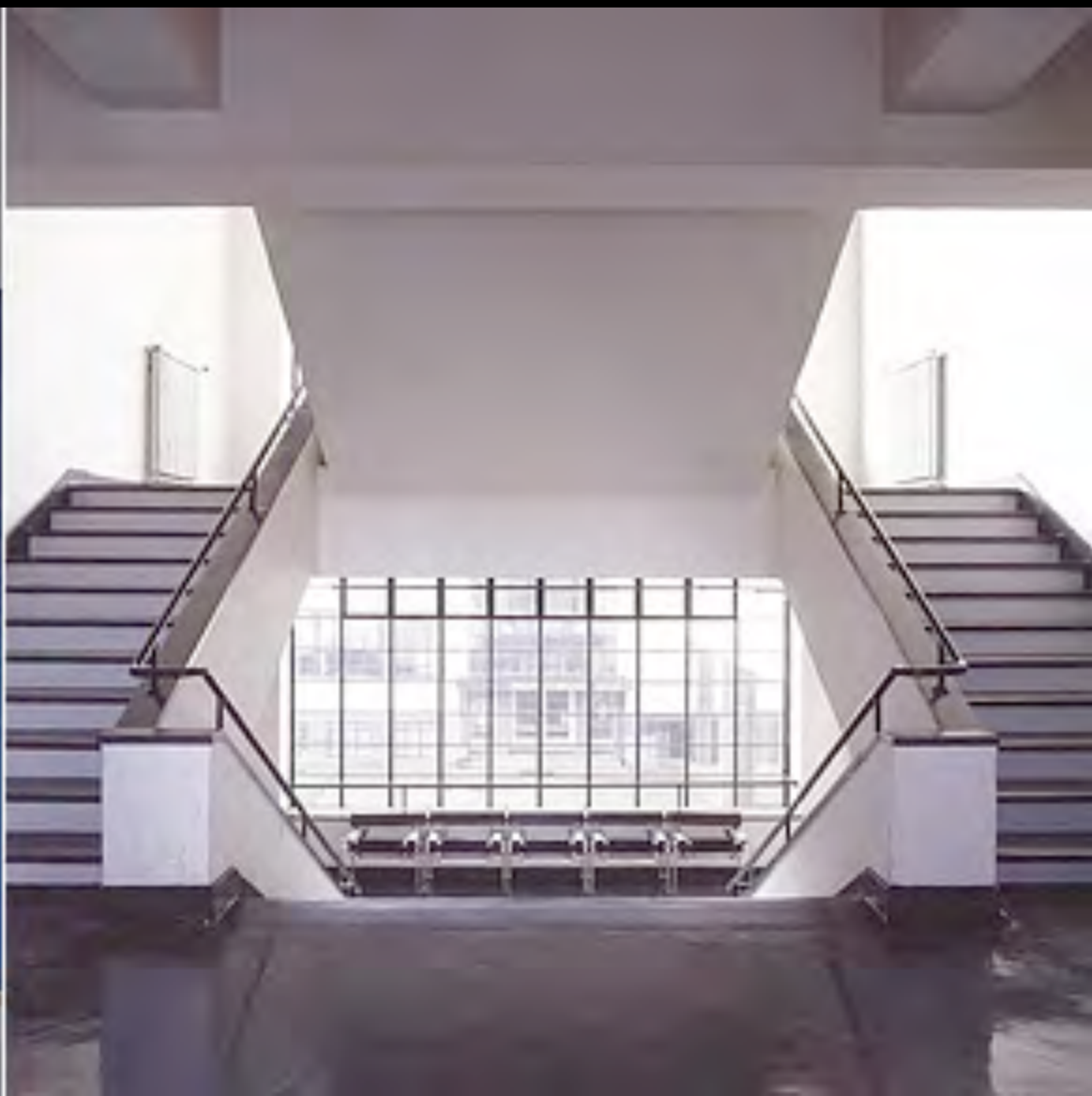




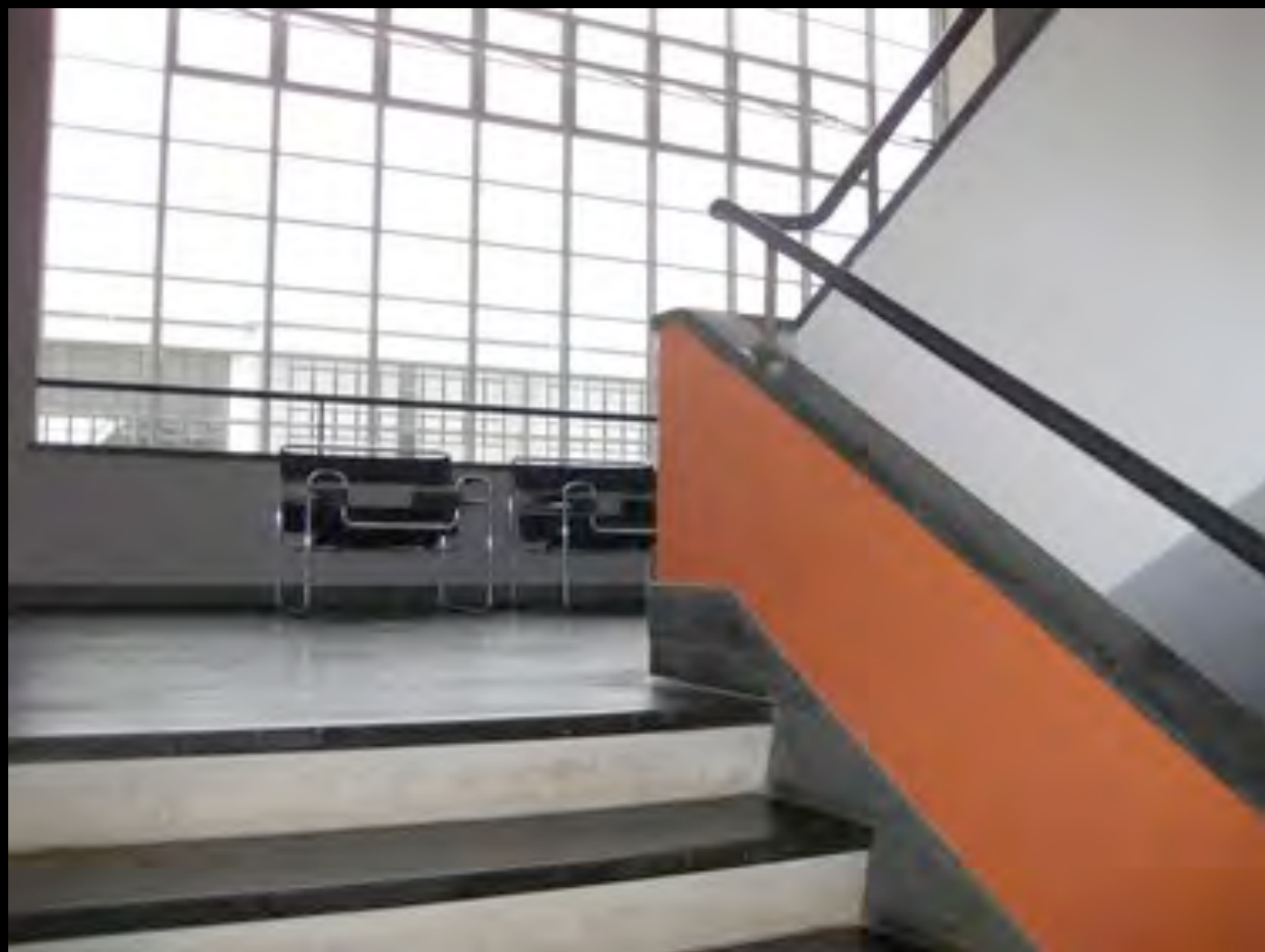


@hustleandflow







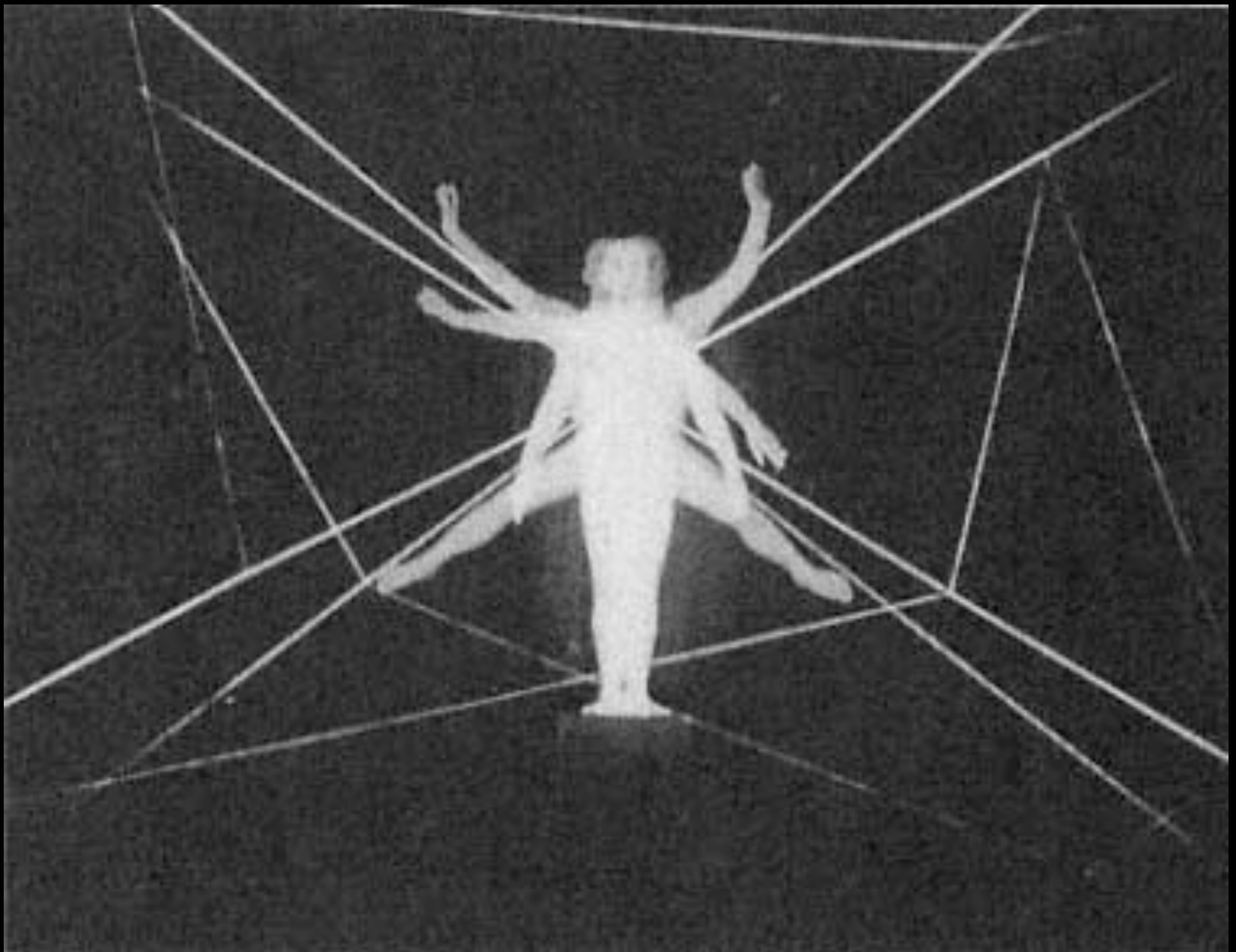




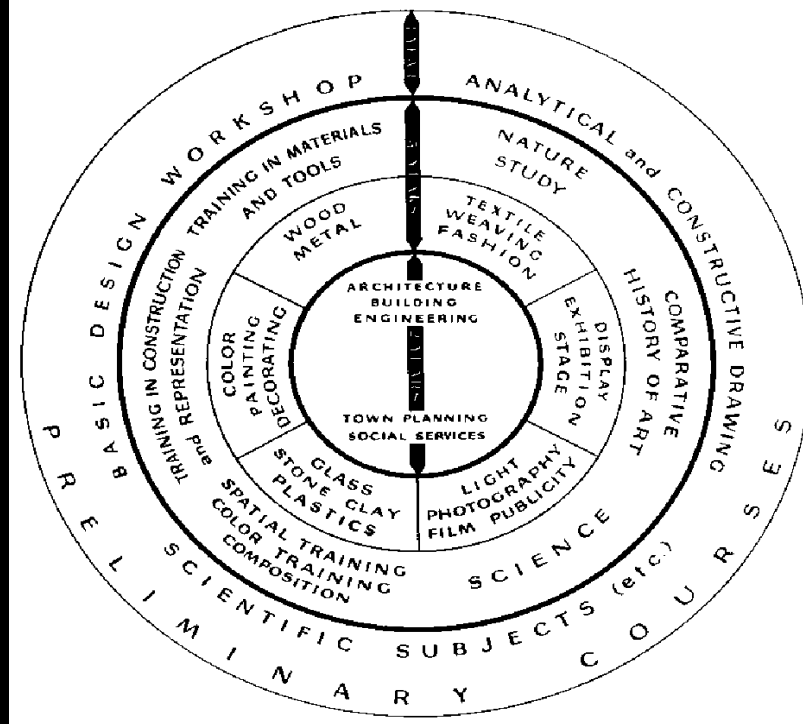
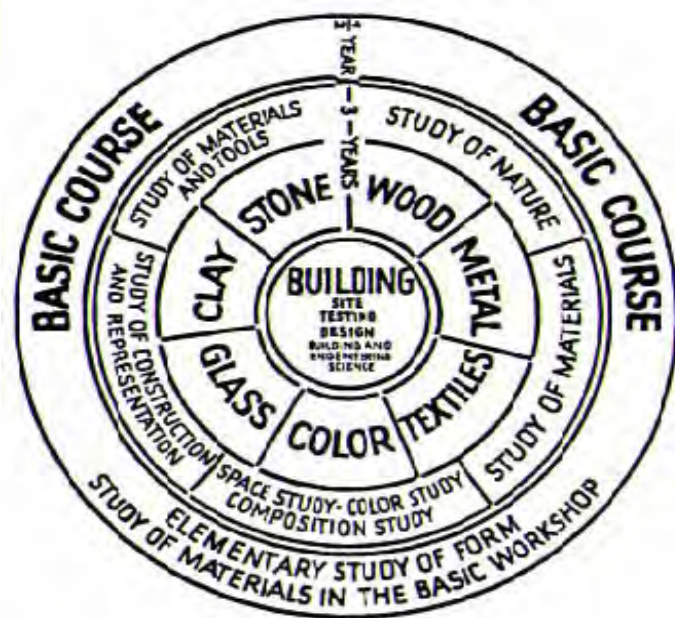
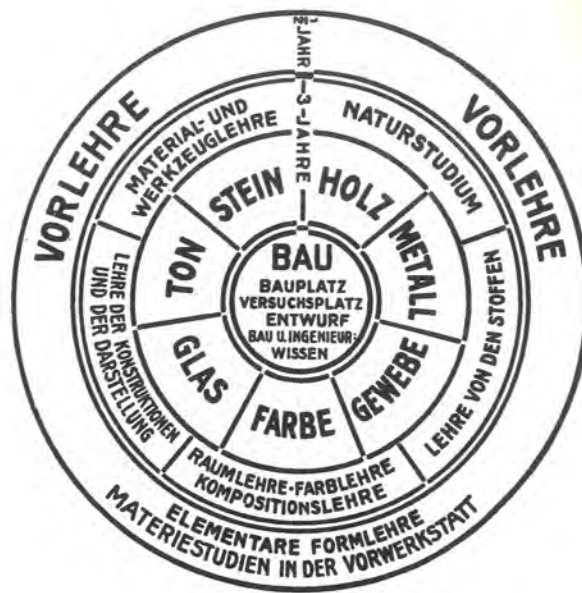
Auditorium, Marcel Breuer designed chairs



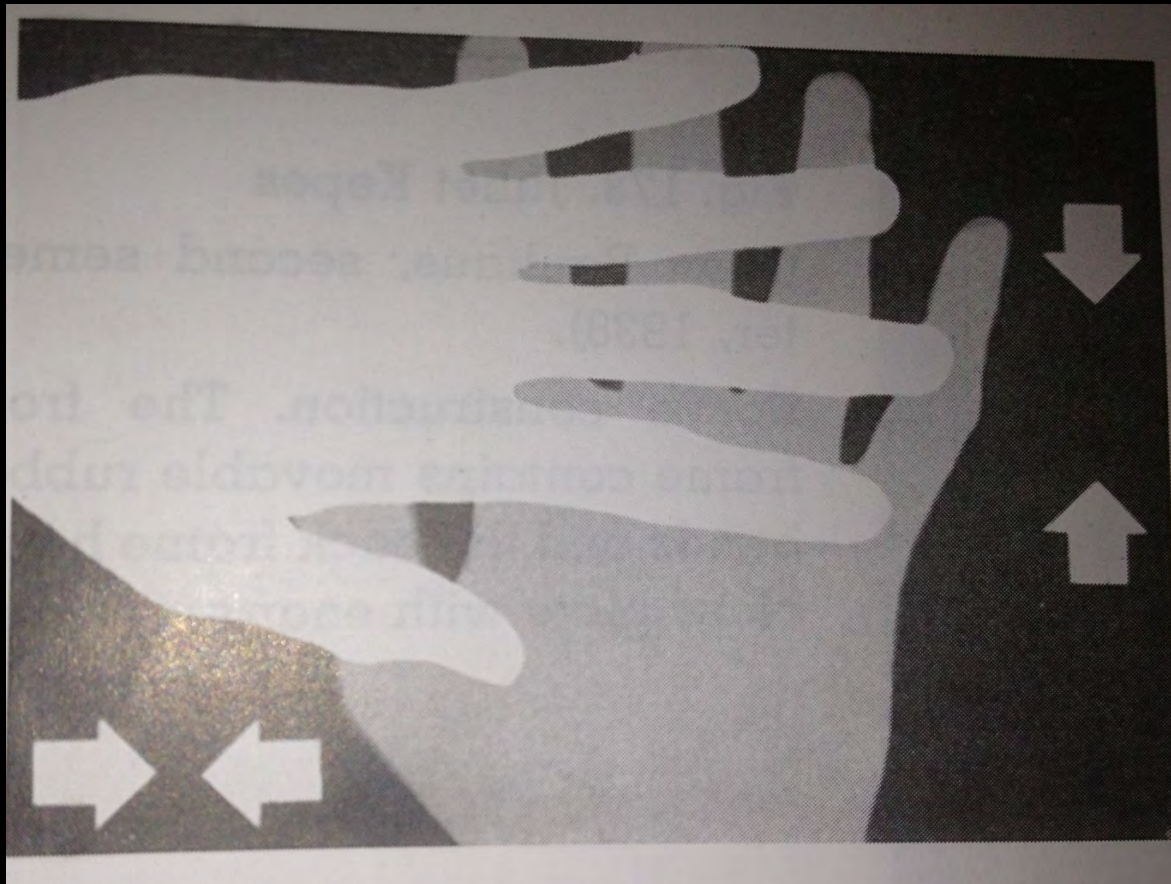
Walter Gropius, Master House: Duplex, 1926



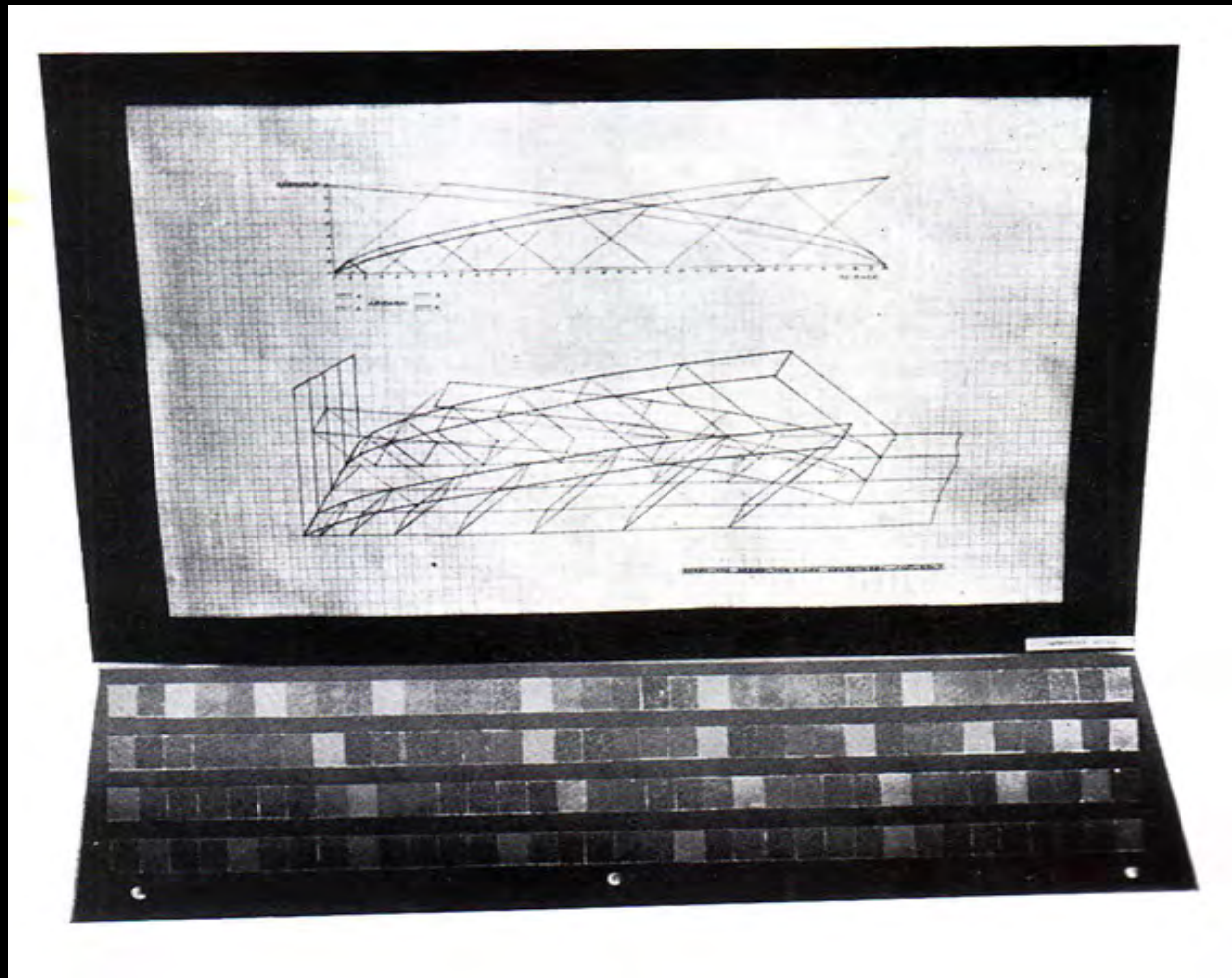
Experimental Dance, Bauhaus, 1927



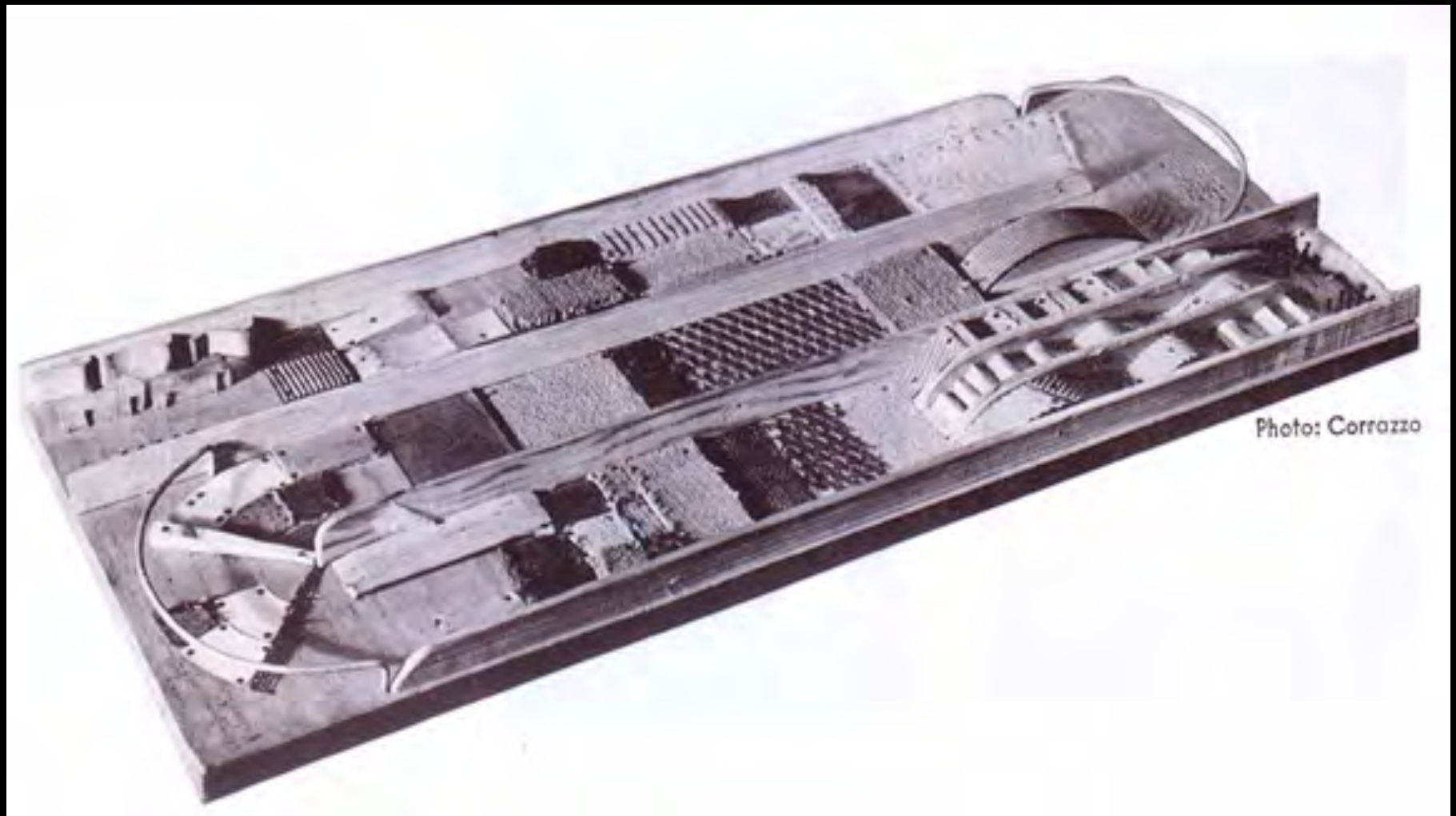
9. Curricular wheels of the Bauhaus (1922) and New Bauhaus (1937)



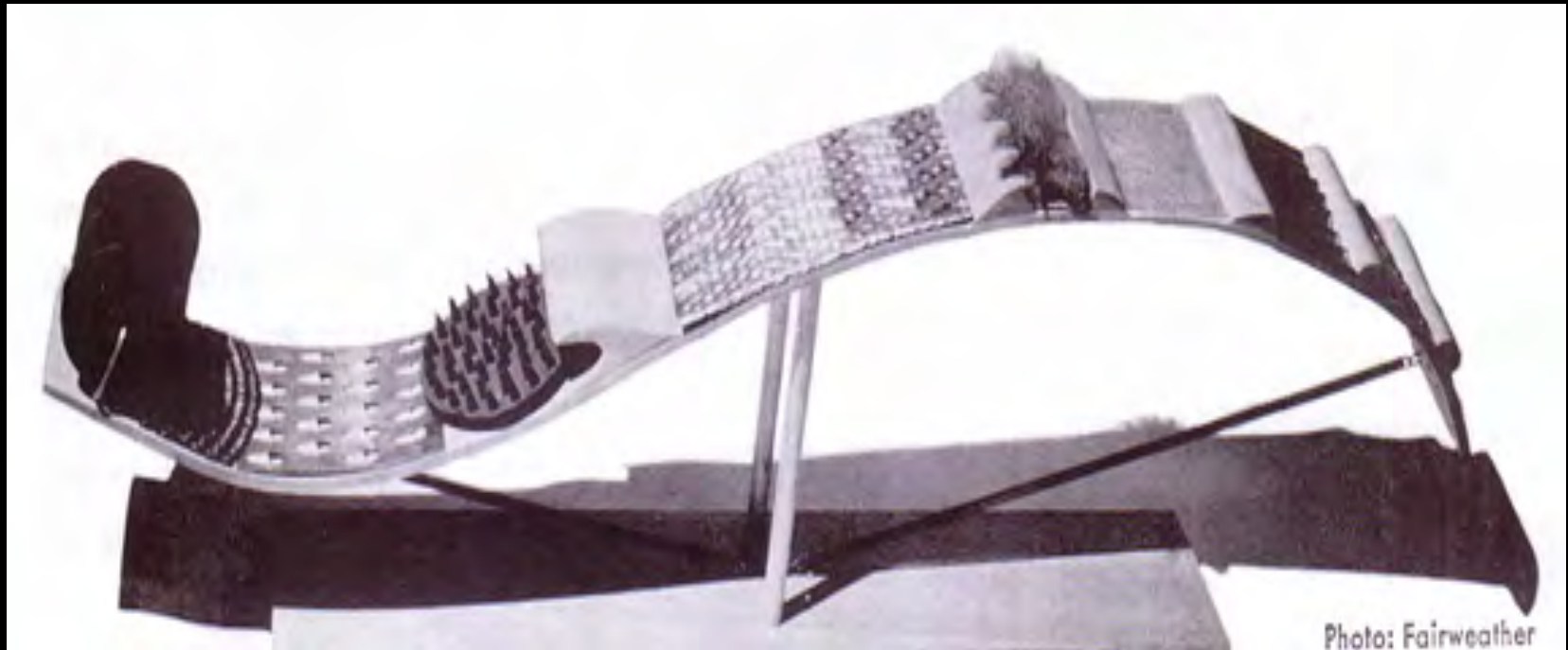
10. László Moholy-Nagy, Study for "Spatial Relations" in *The New Vision* (1938) p. 165



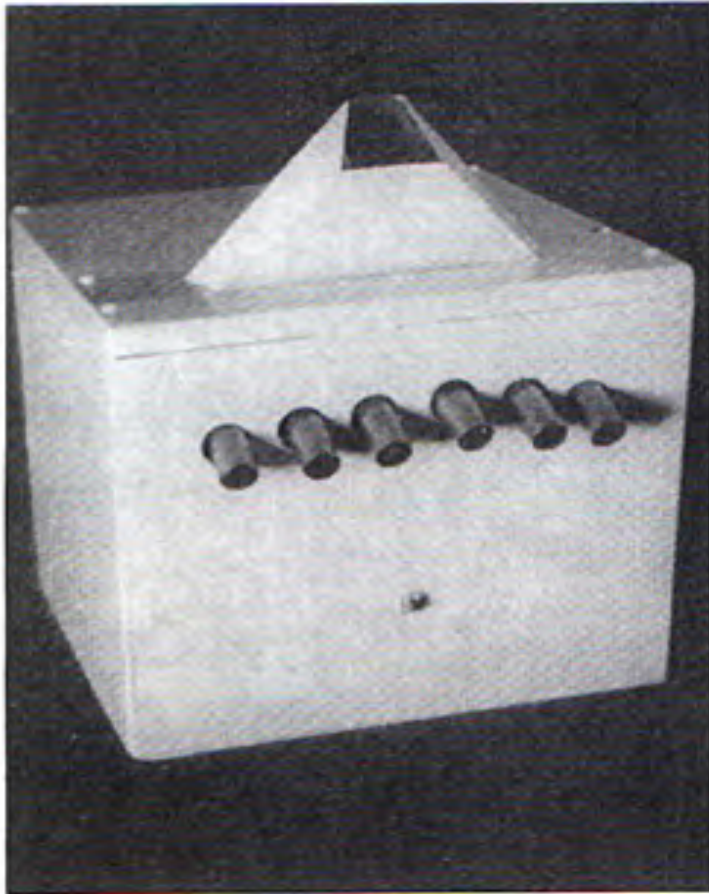
11. Tomas Flake, "Tactile Table in Four Rows of Sandpapers and Corresponding Diagram," Second Semester Bauhaus Dessau, 1929, from *The New Vision*, p. 27



12. Alexander Corrazzo, "A Tactile Symphony in Three Rows," First Semester New Bauhaus, 1937, from *The New Vision*, p. 33



13. Francis Fairweather, "Tactile Chart Held In Balance On Metal Springs Performing A Swinging Movement When Used," Second Semester New Bauhaus 1938, from *The New Vision*, p. 33

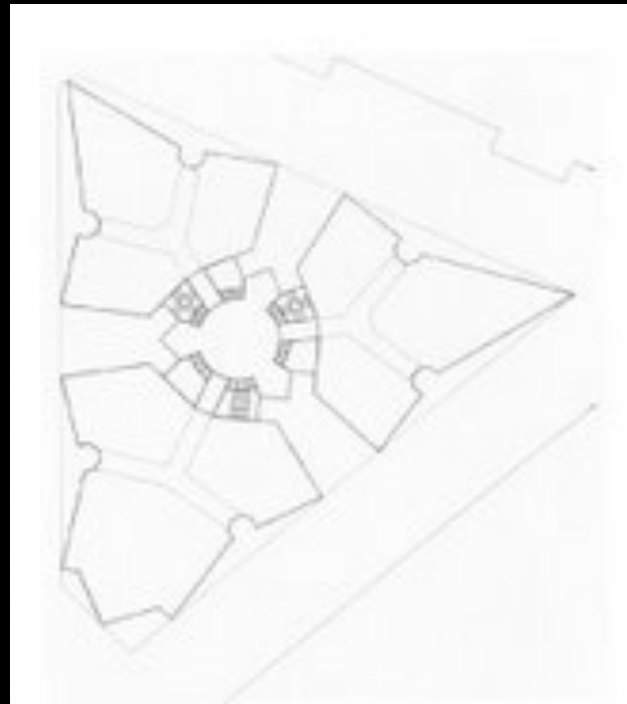
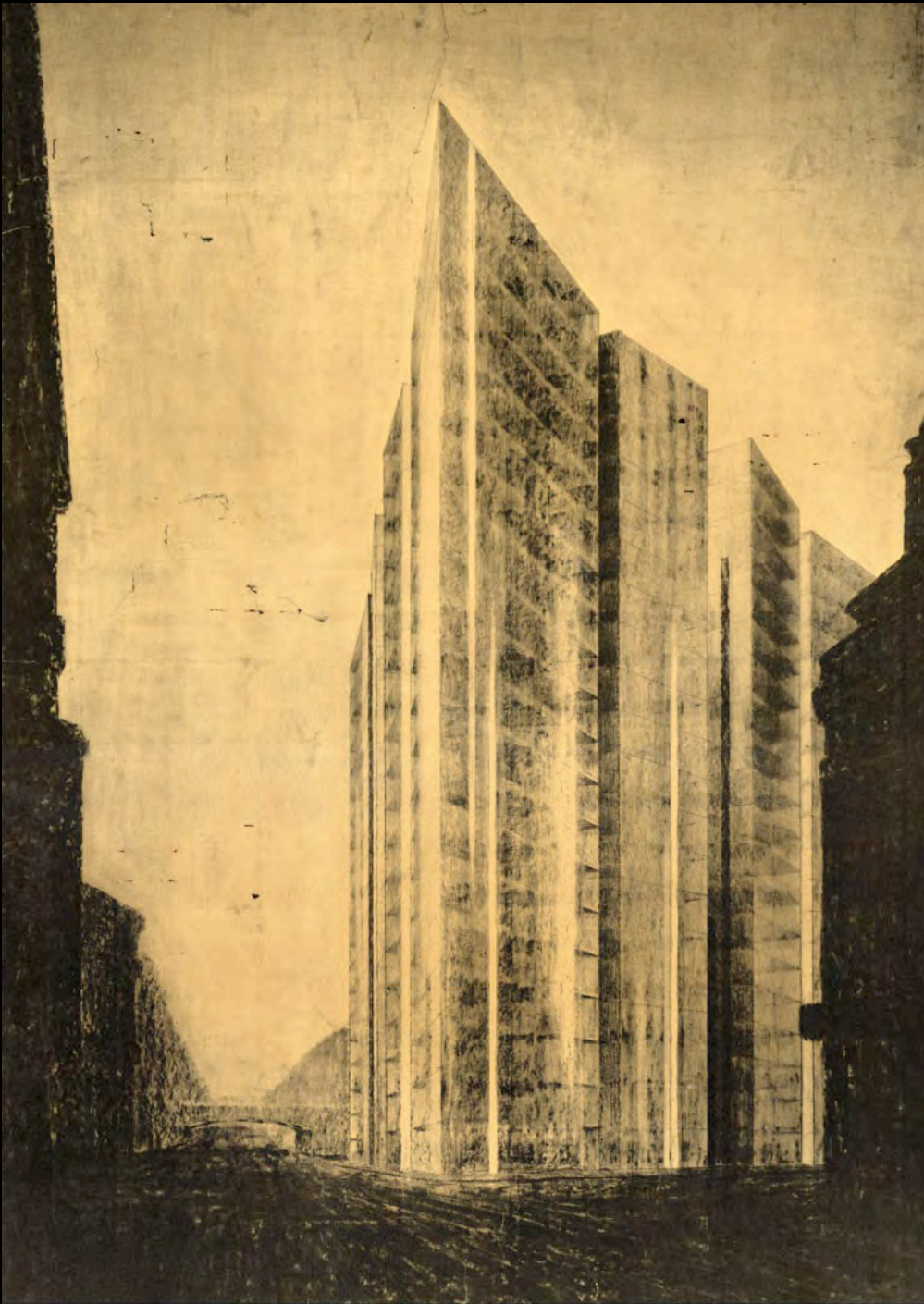


14. Charles Niedringhaus, "Smell-o-Meter" For mixing six different odors six tubes are used and an electric fan blows the smell into the opening for the nose, Second Semester New Bauhaus, 1938, from *The New*

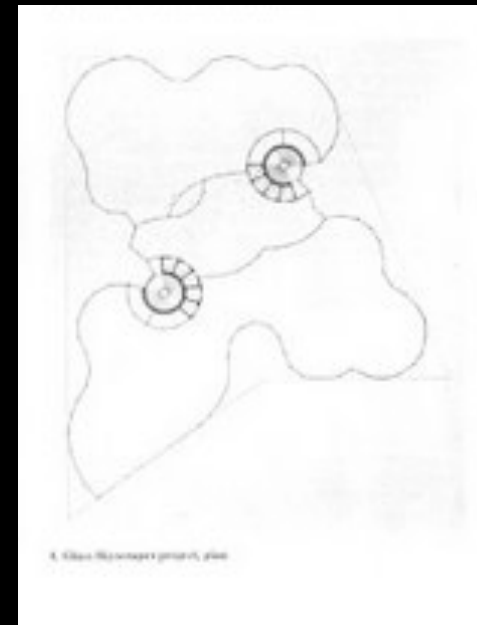
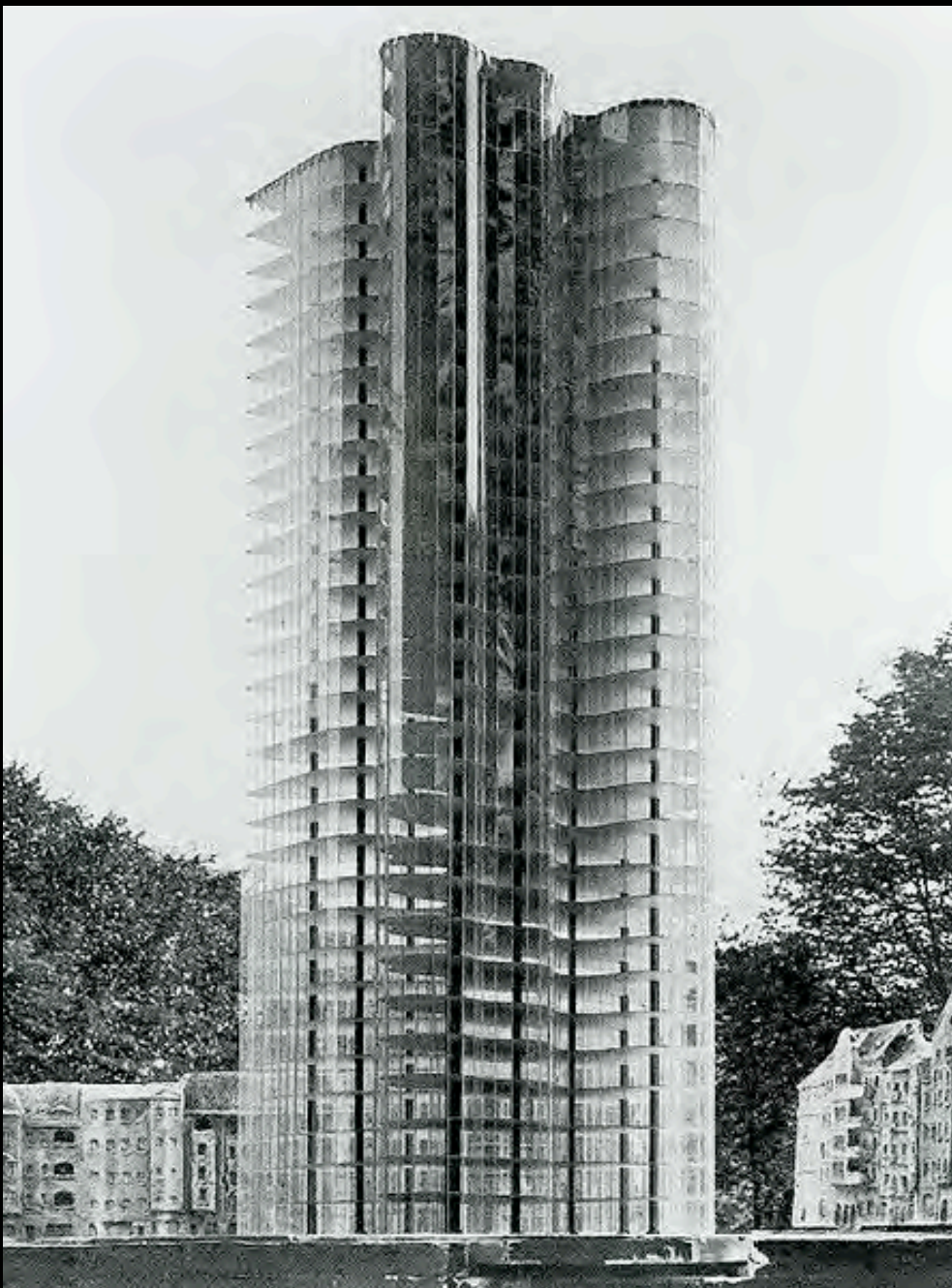
It then became clear to me that it was not the task of architecture to invent form. I tried to understand what that task was. I asked Peter Behrens, but he could not give me an answer. He did not ask the question. The others said, "What we build is architecture," but we weren't satisfied with the answer... since we knew that it was a question of truth, we tried to find out what truth really was. We were very delighted to find a definition of truth by St. Thomas Aquinas: "Adequatio intellectus et rei," or as a modern philosopher expresses it in the language of today: "Truth is the significance of fact."

-

Mies van der Rohe (1961)



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 van der Rohe, with Philip Johnson (interiors), Seagram Building
New York, 1958

1G Material for

JULY 1923

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The opposition between modern form-creation (in order to bridge it but to deepen it).

Weariness with the old artsiness and the fact of visual form-creation.

Our "emotions" impede us from seeing what is true traditions, is required.

Today, the trend of both artsiness and of life is in Operating methodically and impersonally is a cultural challenge generations (overcoming the classical prejudice, humanism, and the

The fundamental demand
Pure relation of power
That requires elementary
Elemental order, r

In France, the land of artistic tradition, the pictorial object and Malevich-Tatlin), practical labor emerged; in Germany the last we are dealing with a new ism, and, to be sure, one of exceptional emotional.

It seems to us entirely impossible that even in Germany out of inner necessity — in order to devote themselves to fundamental

Though perhaps we do not have here, as in Holland, to produce modern things, until now the call to that which is fundamental now be made.

G

Sept. 23

MATERIAL FOR

EDITOR: HANS RICHTER. EDITORIAL BOARD FOR THIS ISSUE: GRAFF, MIES v. d. ROE

BUILDING

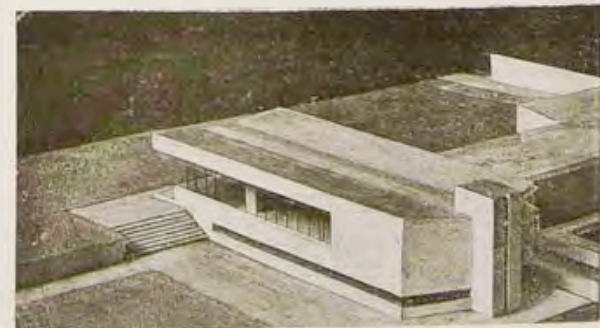
We know no formal problems, only building problems.

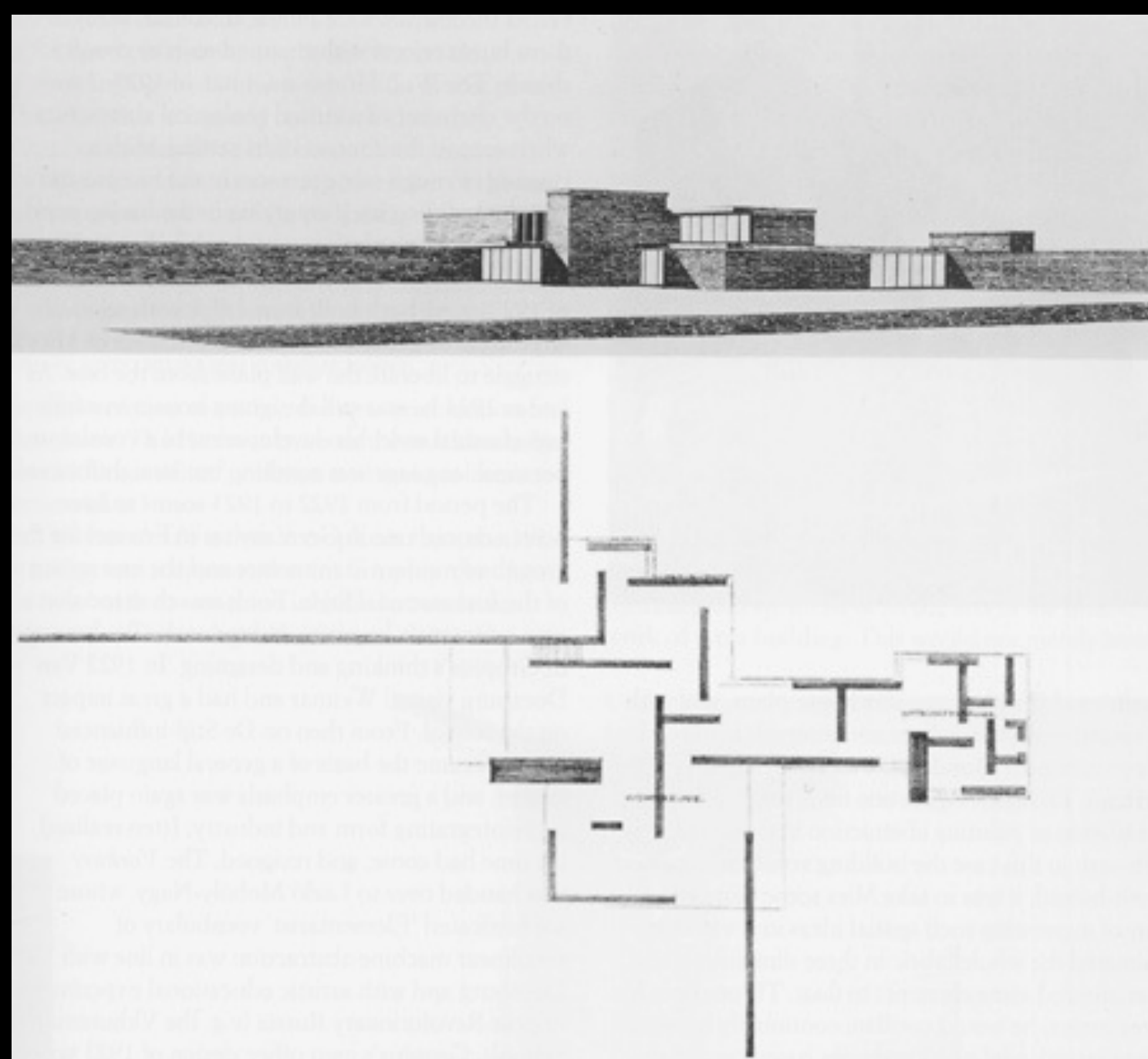
Form is not the goal but the result of our work.

There is no form in itself [an sich].

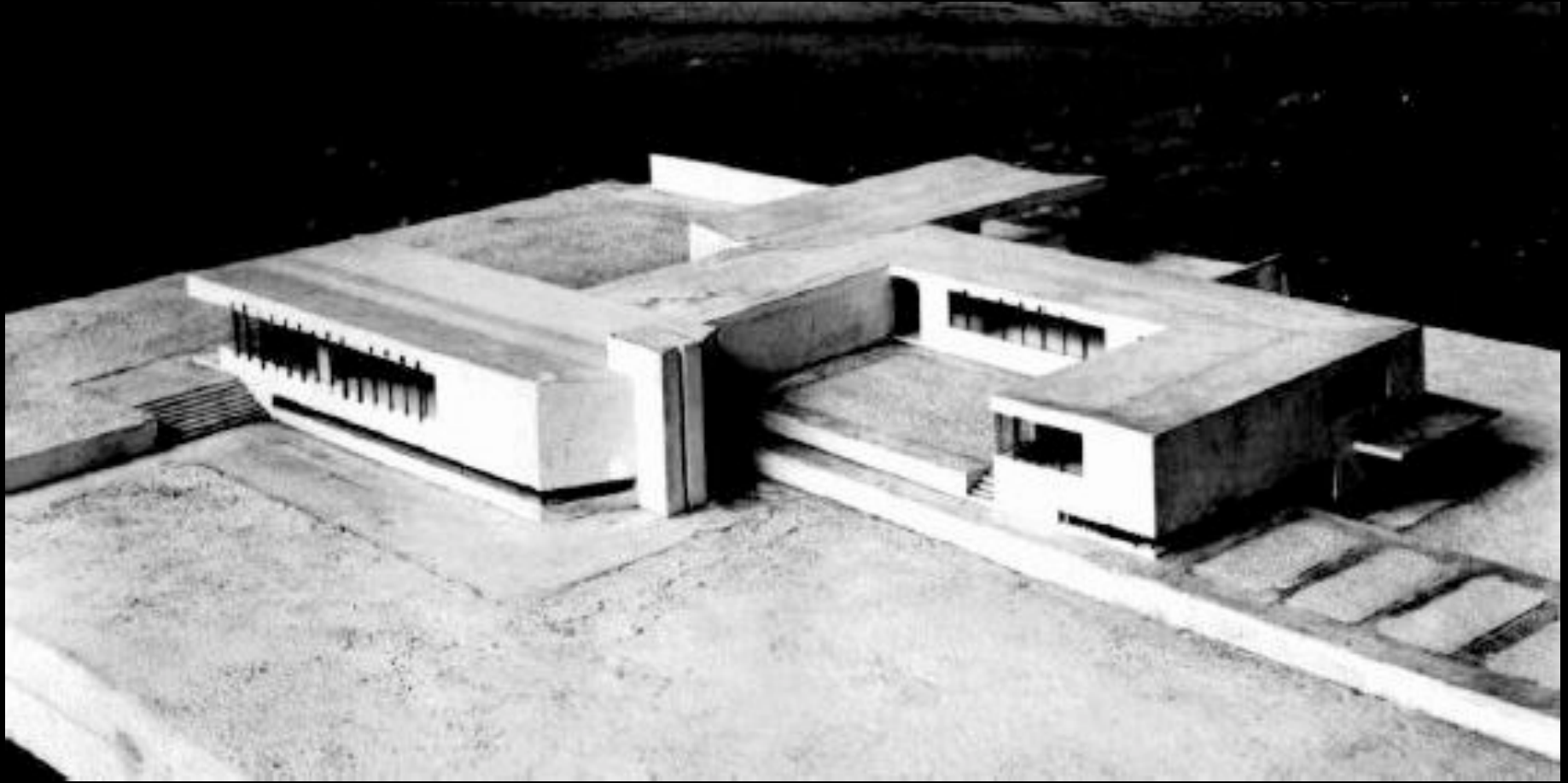
The truly formed thing is conditioned, grown together with the task. Indeed, it is the most elemental expression of the solution of that task.

Form as goal is formalism; and we reject that. Nor do we strive for a style.





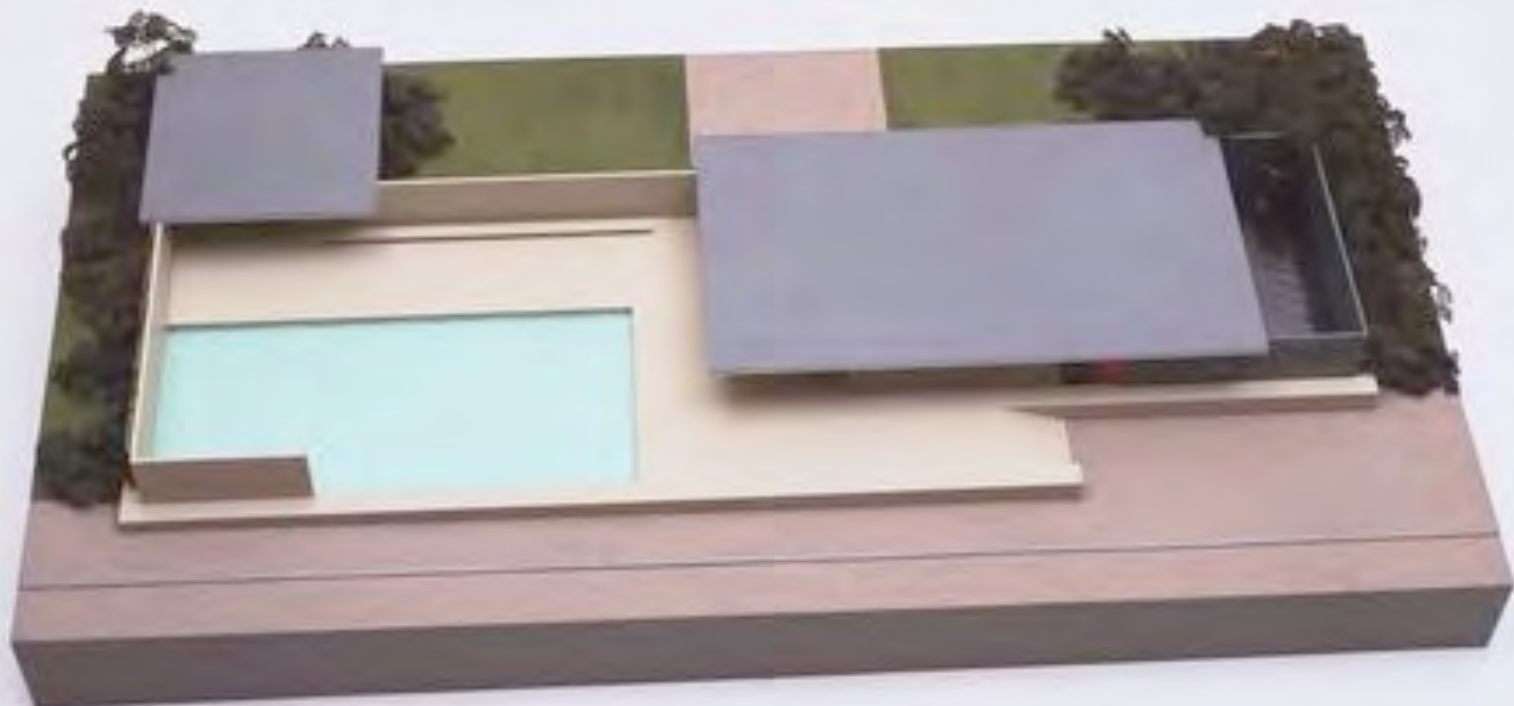
Mies van der Rohe,
Project for a Brick
Country House,
1923

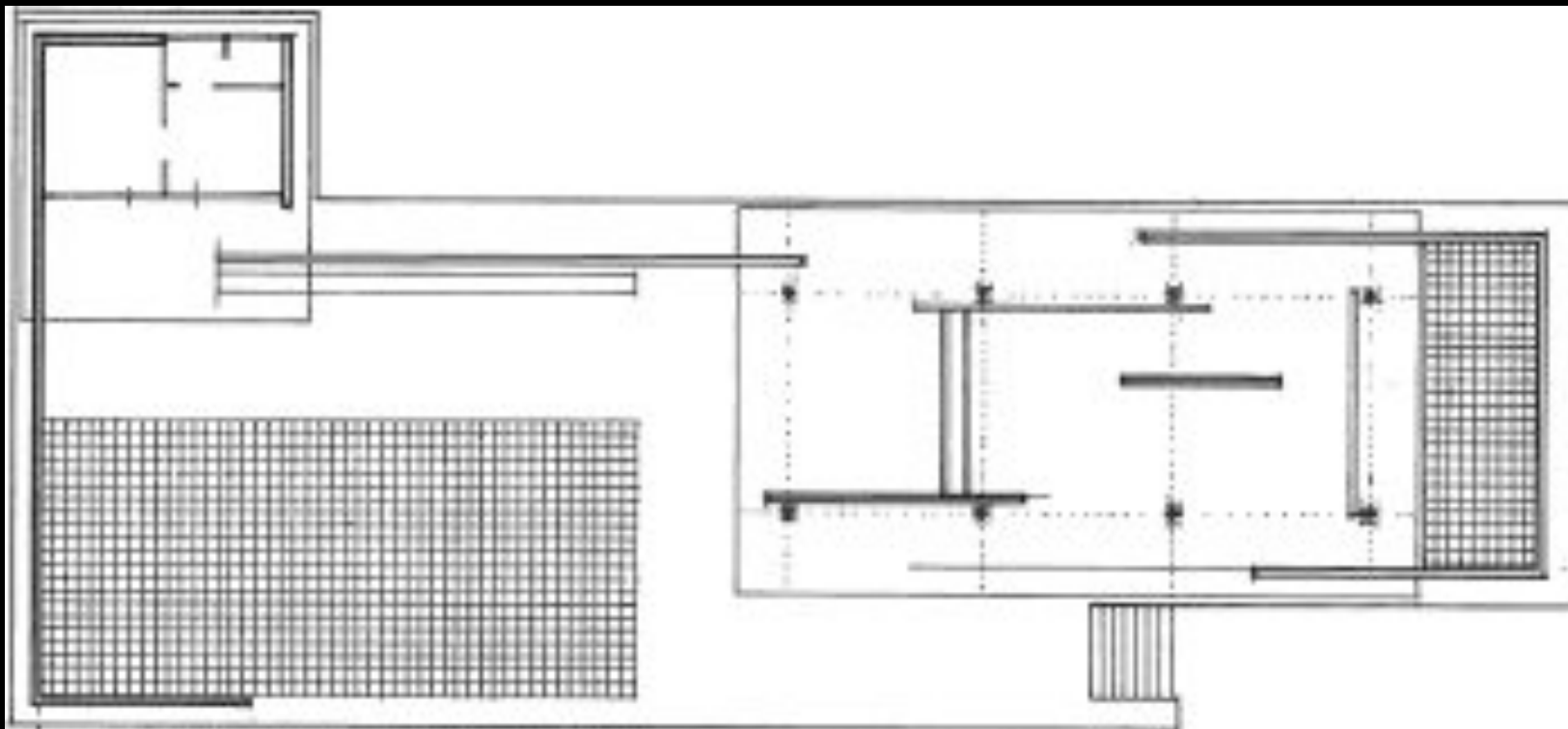


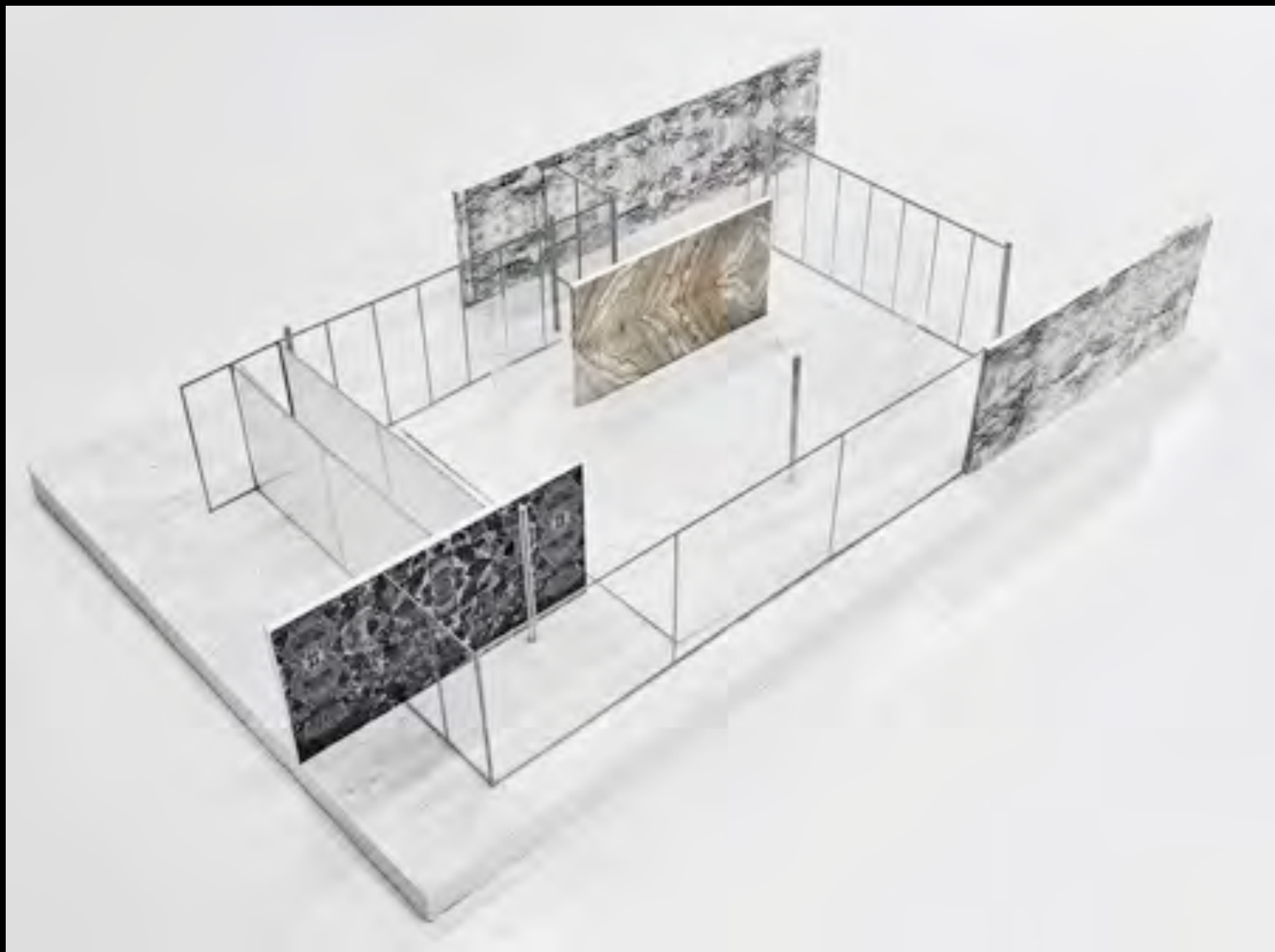
Mies van der Rohe, Project for a Concrete Country House, 1923

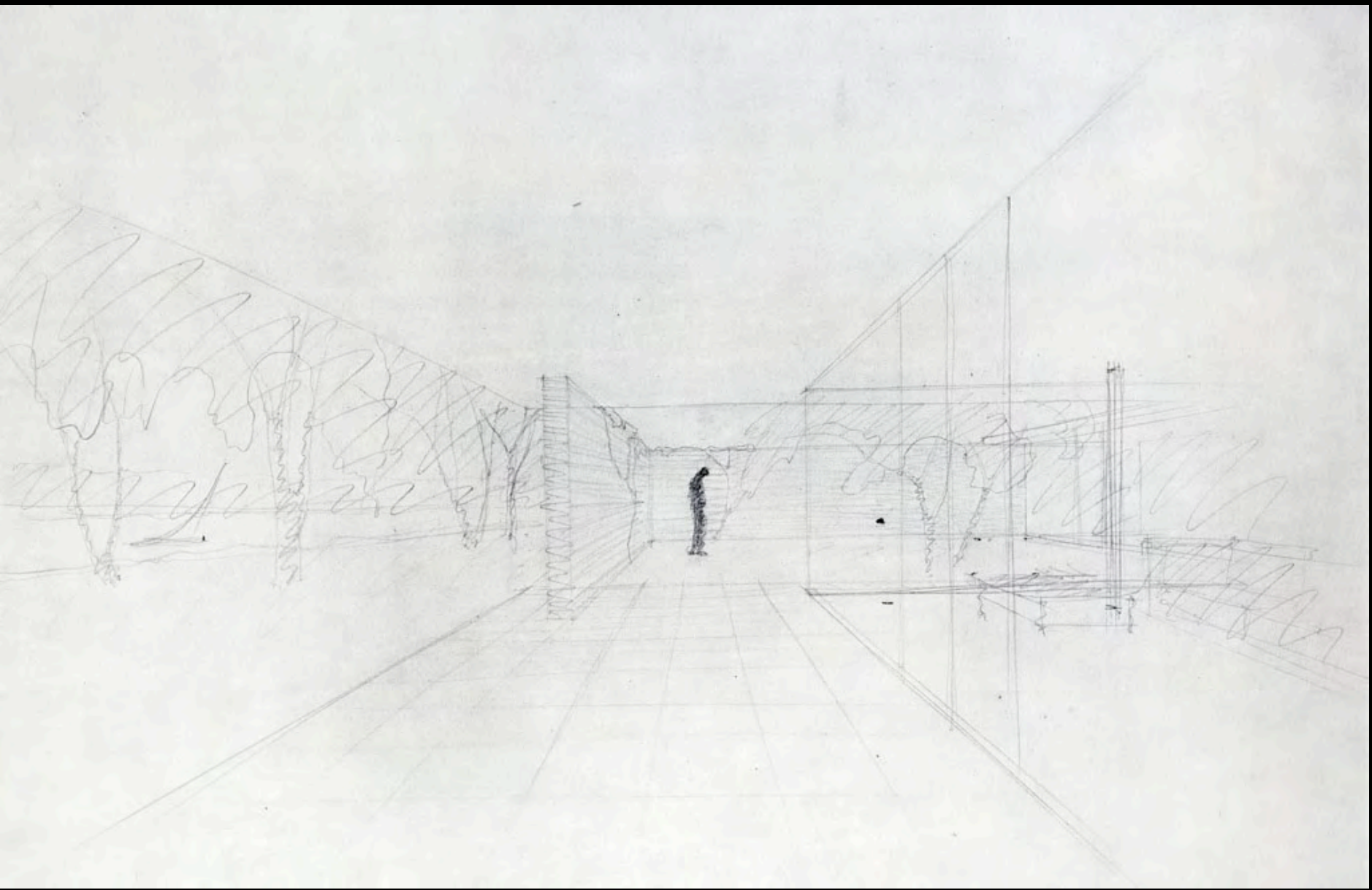


Mies van der Rohe, German Pavilion, World Exhibition, Barcelona, 1929









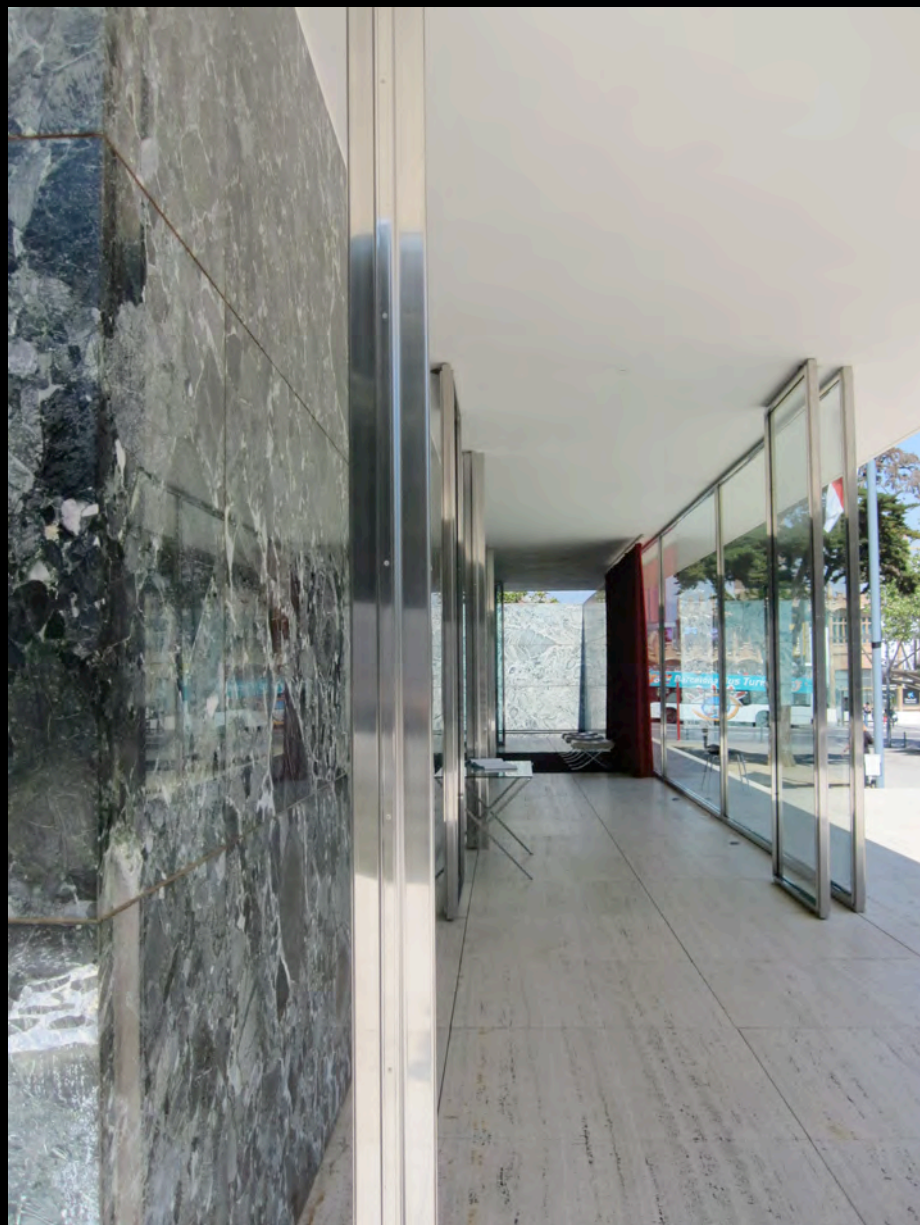
beinahe nichts – almost nothing





Barcelona Chair







Horizontal Column Section







©Meredith L. Clausen 1994



Mies van der Rohe, Tugendhat House, Brno, Czech Republic, 1930

REZ-DE-CHAUSSEE HAUT

CONSTRUCTION A OSSATURE D'ACIER AVEC PLANCHER EN
BETON DE PIERRE ARME. LES MURS EXTERIEURS SONT EN
MAGNÈSE DE L'ÉPAISSEUR D'UNE DEMI-BRAQUE. CROÛTES
ET JOINTS PAR UN SYSTÈME DE PLAQUES EN TONNÉLÉE
(RUE DE TOURNE)

LA MAISON TROCHENAT, A SPONNE, (H. 17, P. 24 x 28)

NIVEAU
DE LA RUE

L'ENTRÉE DONNANT ACCÈS SUR LA RUE
GÉNÉRAL À L'ÉTAGE SUPÉRIEUR

NIVEAU
DU JARDIN

COUPE VERTICALE

COUPE VERTICALE
DE LA FENÊTRE
A LUMIÈRE ÉLECTRIQUE
SUR SECTION 2-2

ÉTAGE SUPÉRIEUR

MAISON TROCHENAT, SPONNE, 1924

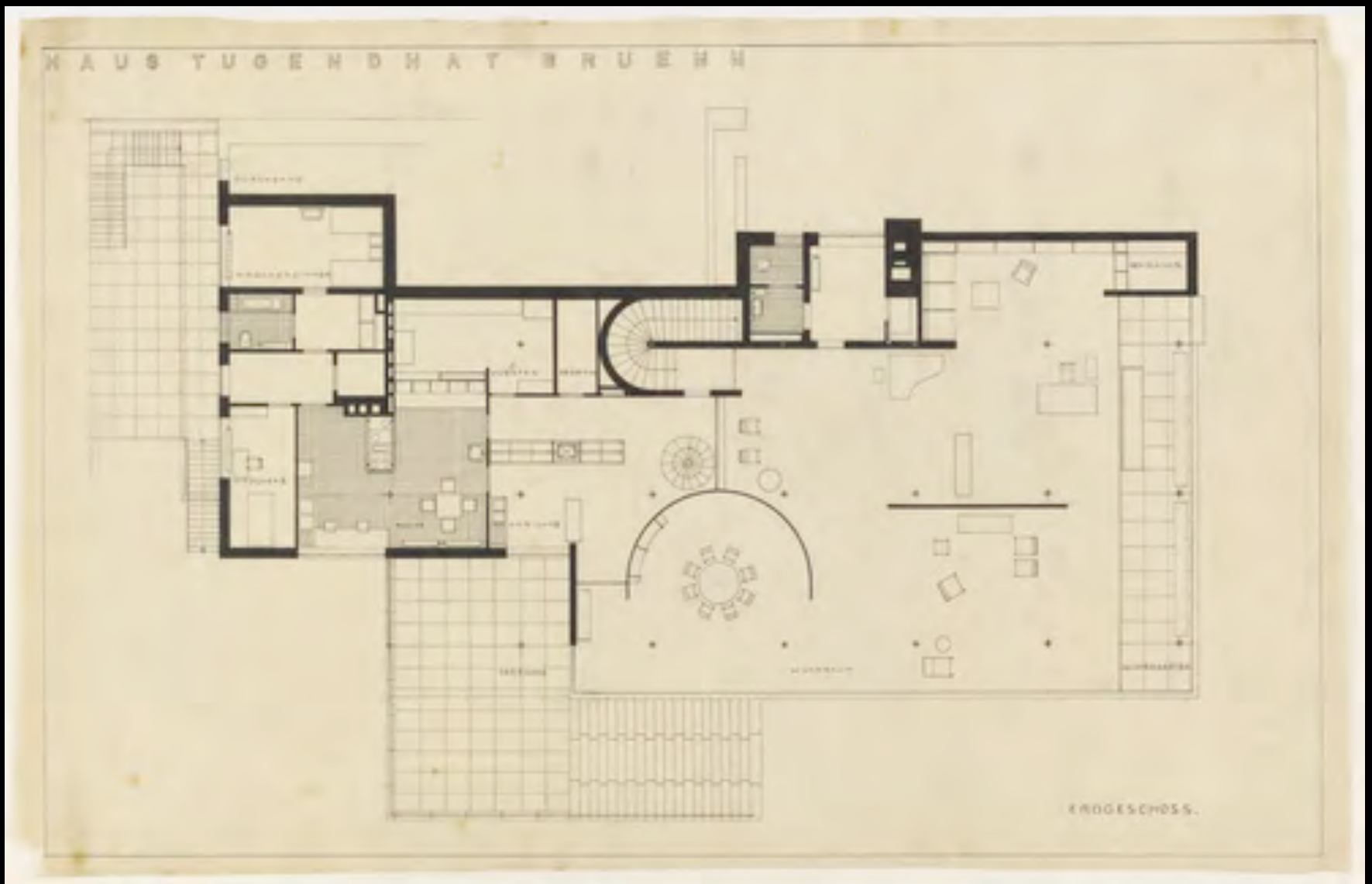
COUPE HORIZONTALE
D'UN POUTRE MÉTALLIQUE (1)

HAUS TUGENDHAT BRUNN



OBERGESCHOSS.

Tugendhat House, Second Floor Plan



Tugendhat House, First Floor Plan

MICHAEL SEAN LEE





