

AHST 3322-001 (27125)
History of Modern Architecture
Dr. Charissa N. Terranova
University of Texas at Dallas
Spring 2019
Tu-Th 1:00-2:15
AD 2.232

Tuesday February 26

Modernism – Functionalism and the Right Angle Part 2

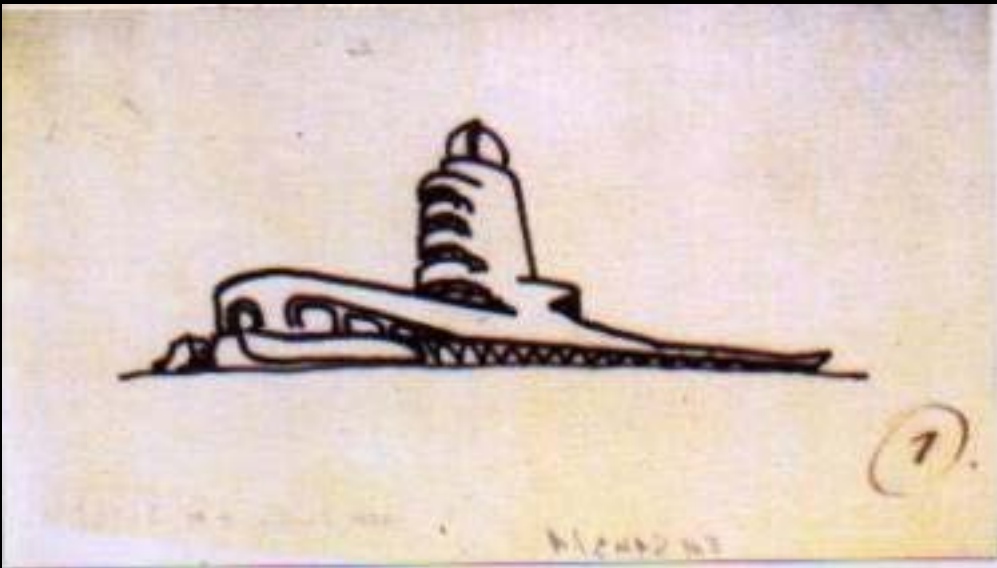
Glass Chain

Bauhaus

Empathy and Expression in Modernism

Einfühlung – Empathy

Eric Mendelsohn, Einstein Tower, Potsdam, 1919
Observatory NOTE: Not Cologne, example of
Expressionist Architecture



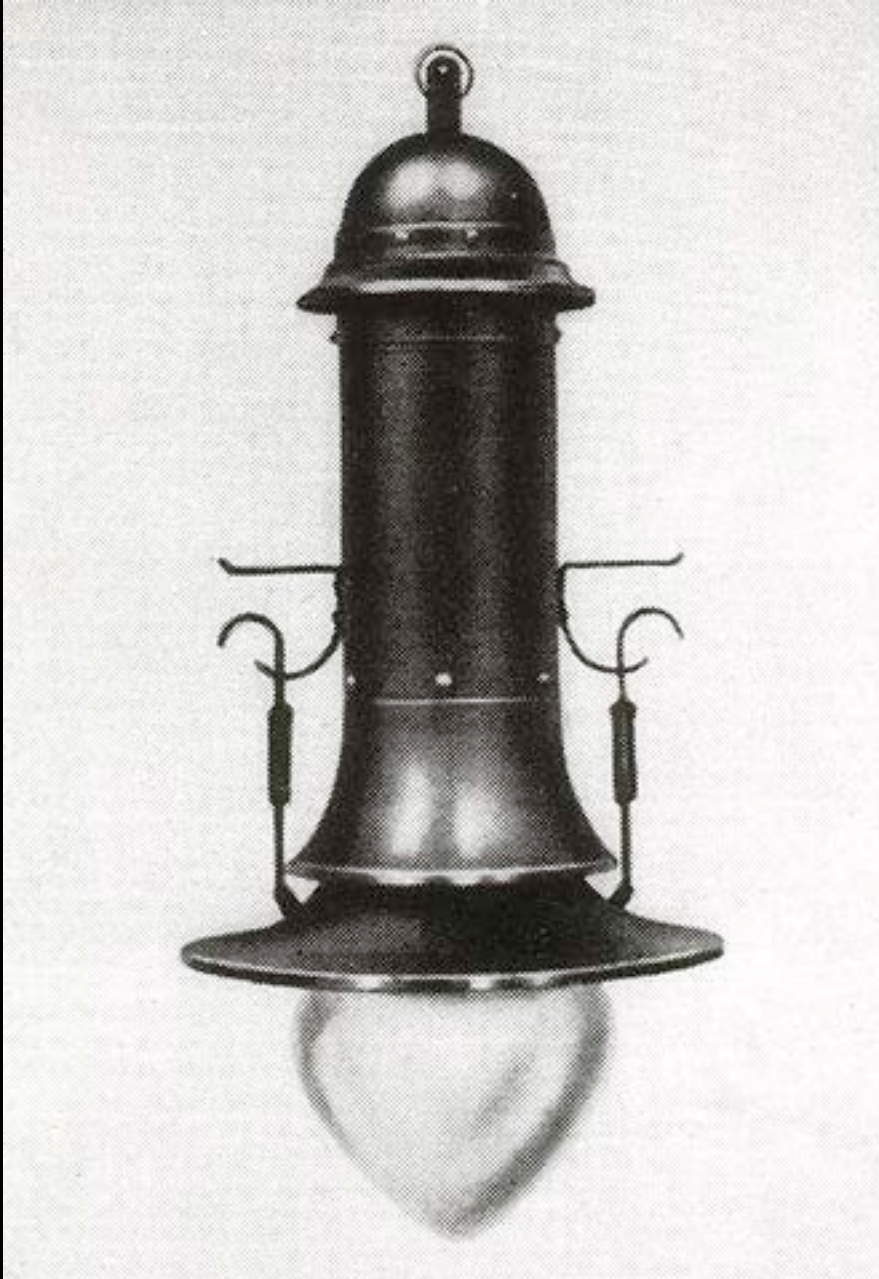




Terms

- Gesamtkunstwerk – Total work of art
- Deutscher Werkbund – German work federation
- Kunstswollen – Will to art (Alois Riegl)
- Einfühlung – Empathy
- Typisierung – Type
- Das Zeichen – The Sign

Peter Behrens, AEG Light Fitting, 1907



Typisierung – Type

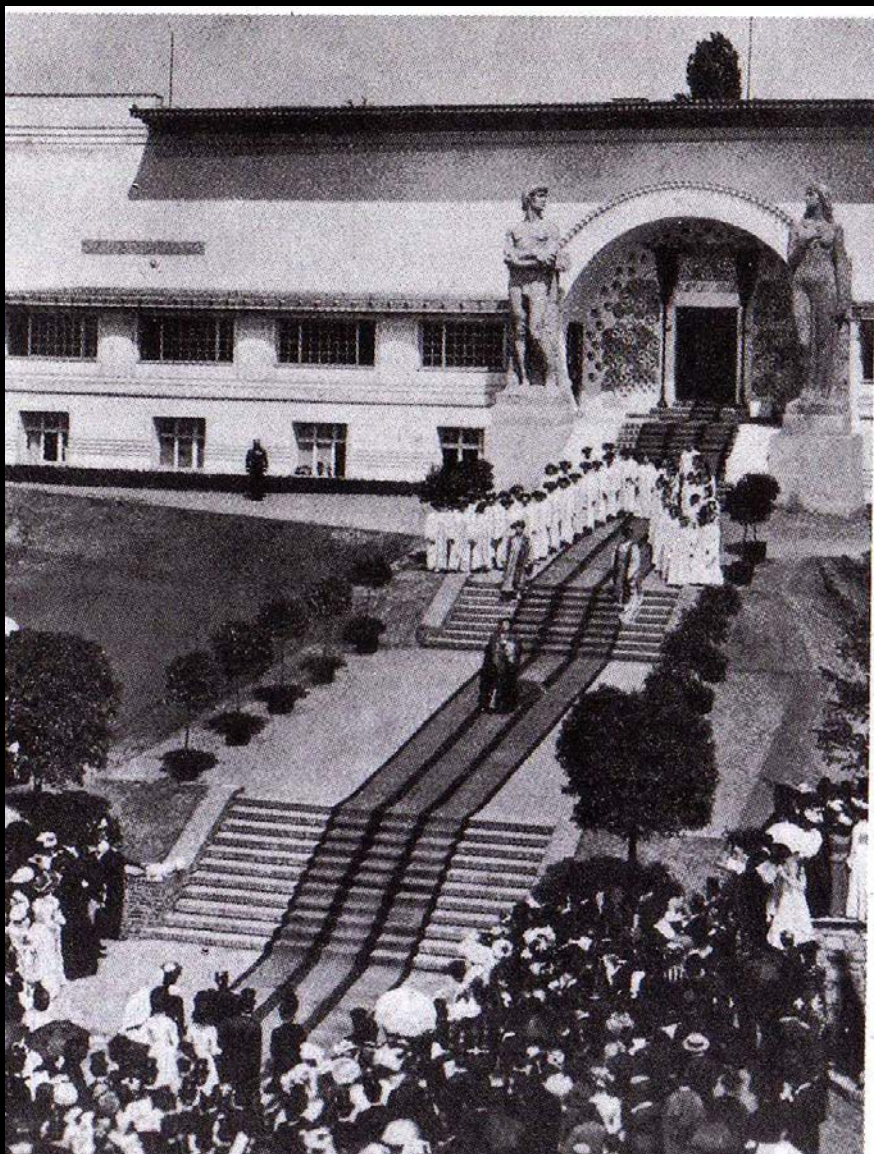


Peter Behrens, AEG Table Fan, 1908

Einfühlung – Empathy



Eric Mendelsohn, Einstein Tower, Potsdam, 1919



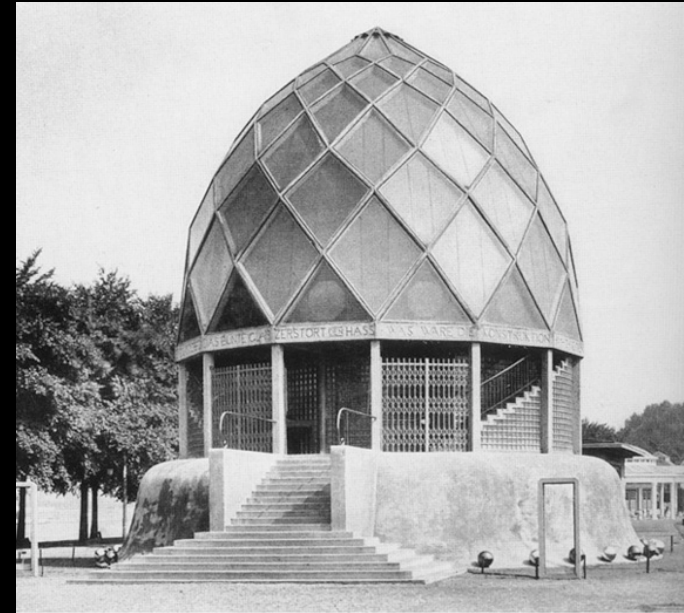
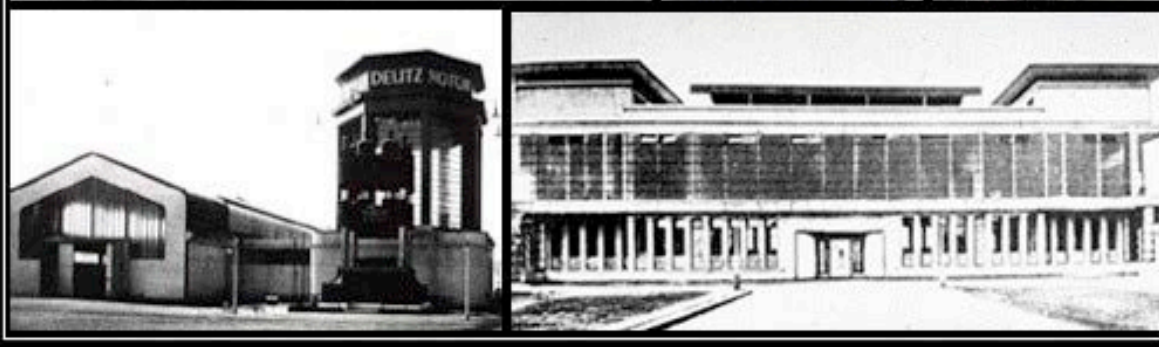
Olbrich, Ernst Ludwig House,
Darmstadt, 1901

Das Zeichen procession 1901



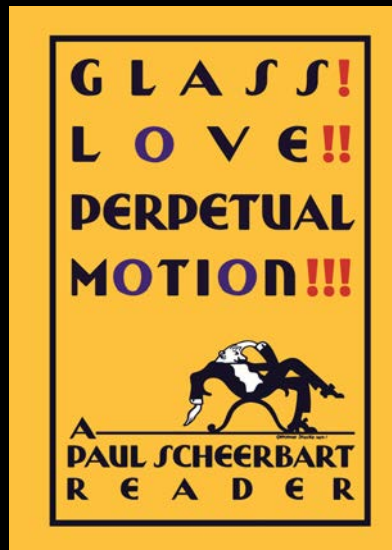
The Glass Chain

European Architectural Expressionism



Walter Gropius, Office and Machinery Building, Cologne, 1914 Bruno Taut, Glass House, Cologne

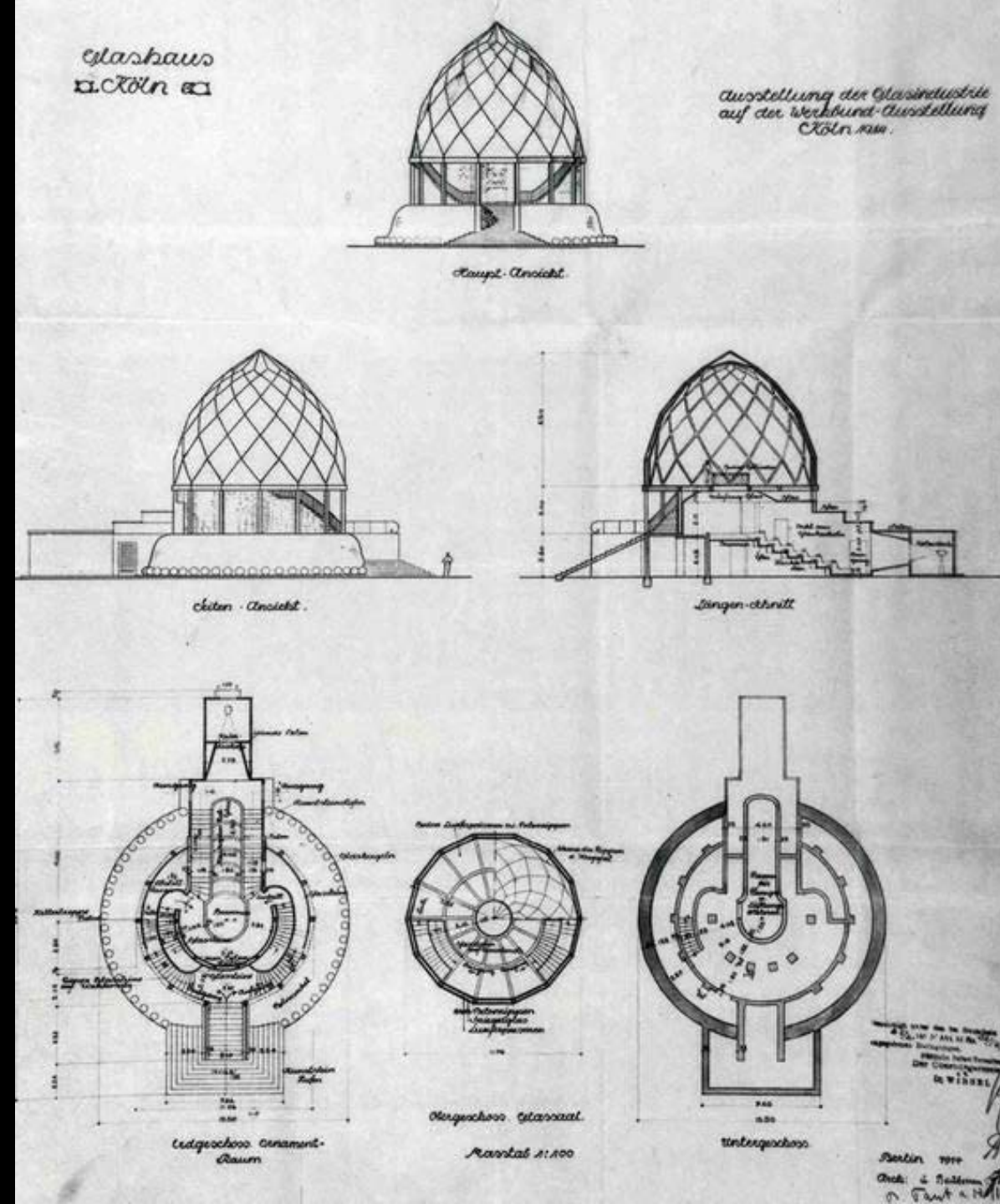
In order to raise our culture to a higher level we are forced, whether we like it or not, to change our architecture. And this will only be possible if we free the rooms in which we live from their enclosed character. This, however, we can only do by introducing a glass architecture which admits the light of the sun, of the moon and of the stars, not only through a few windows, but through as many walls as feasible, these to consist entirely of glass - of colored glass.

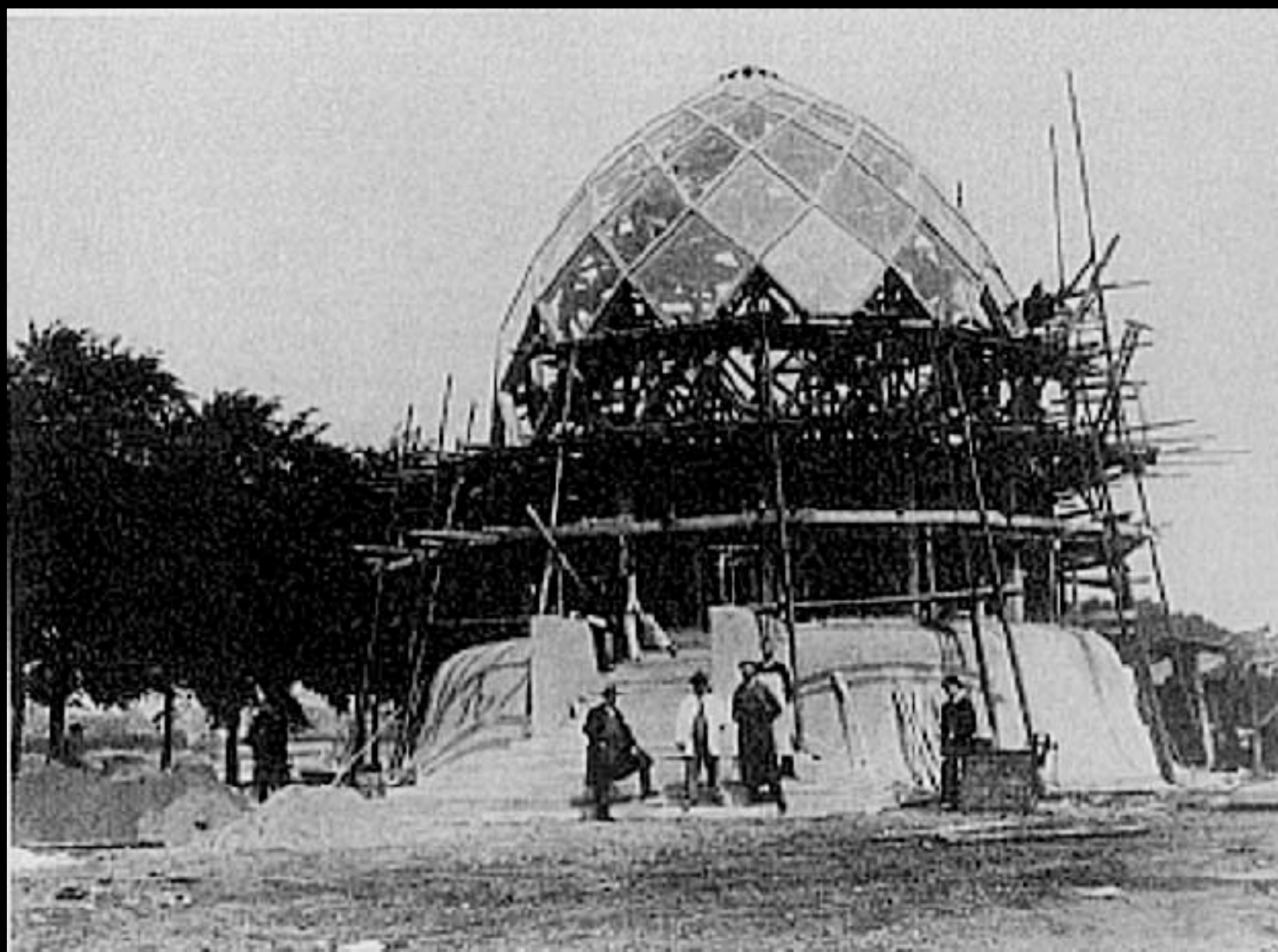


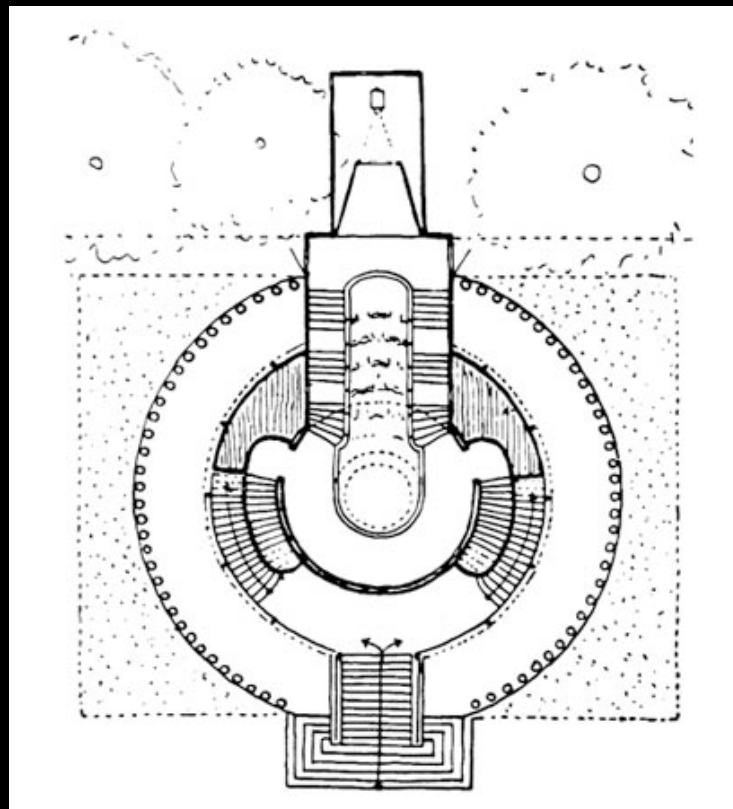
--Paul Scheerbart, *Glasarchitektur* (1914)



Bruno Taut,
Glass House,
Cologne, 1914

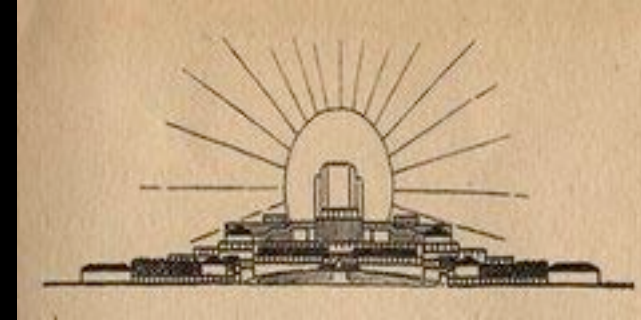
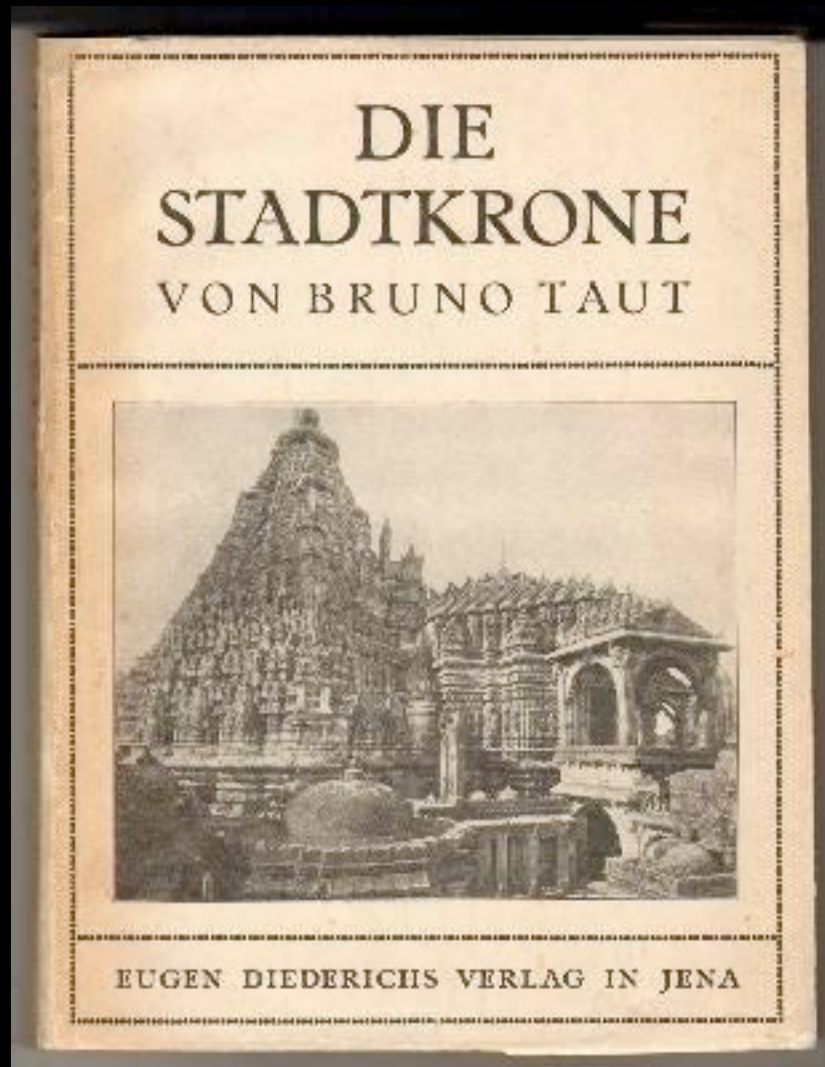






BRUNO TAUT, DAS GLASHAUS AUF DER DEUTSCHEN WERKBUND-AUSSTELLUNG KÖLN 1914

Oberer Teil des Untergeschosses. Wände aus Silbersmalten, Decke aus Goldsmalten der Firma Puhl & Wagner, Berlin-Treptow. Glasgemälde von Fritz Adolf Becker, J. M. Margold, Max Pechstein, Johann Thorn-Prikker, und das große Mittelfenster von Franz Mutzenbecher, ausgeführt von J. Schmidt und Gottfried Heinersdorff, Berlin (Abbildung aus dem Jahrbuch 1915 des Deutschen Werkbundes)



Bruno Taut, Die Stadtkrone, 1919

It is not the crazy caprice of a poet that glass architecture will bring a new culture. *It is a fact.* New social welfare organizations, hospitals, inventions, or technical innovations and improvements – these will *not bring a new culture* – but glass architecture will. Therefore the European is right when he fears that glass architecture might become uncomfortable. Certainly it will be so. And that is not its least advantage. The European must be wrenched out of his coziness.

-- Adolf Behne

Glass Chain

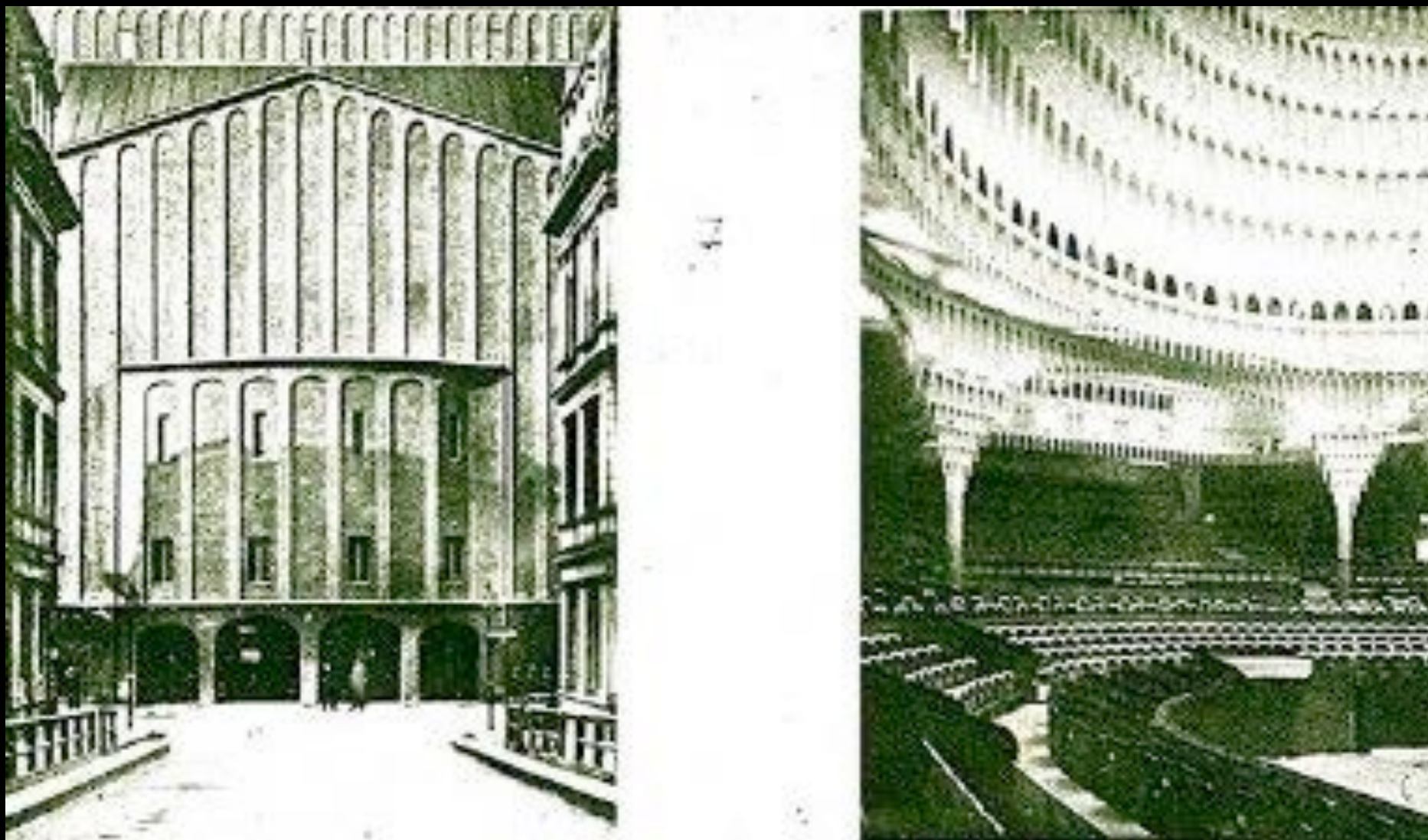
- Bruno Taut “Glas”
- Gropius “Mass”
- Finsterlin “Prometh”
- Max Taut
- Hans Scharoun
- Wassili Luckhardt

We must create just as the blood of our ancestors brought on waves of creativity; and we shall be content if we are ourselves thereafter able to reveal a complete comprehension of the character and the causality of our creations.

-- Hans Scharoun

Opposite to this profoundly spiritual striving is the trend toward automatic processes. The invention of the Taylor System is a typical characteristic of this. It would be completely erroneous to refuse to recognize this tendency of the time, as it is a historic fact. Moreover, it can in no way be proven to be hostile towards art.

-- Wassili Luckhardt

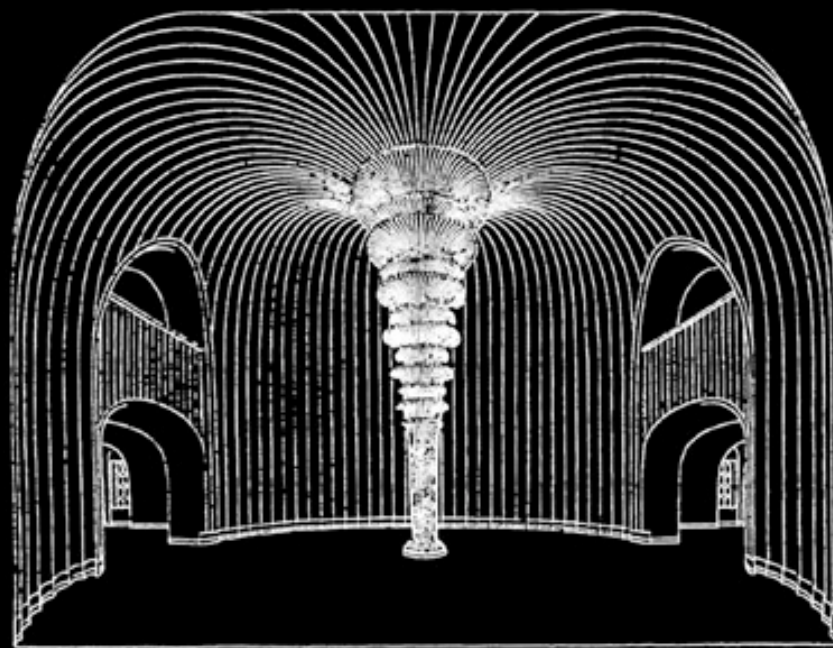


Hans Poelzig, Grosse Schauspielhaus, Berlin, 1919



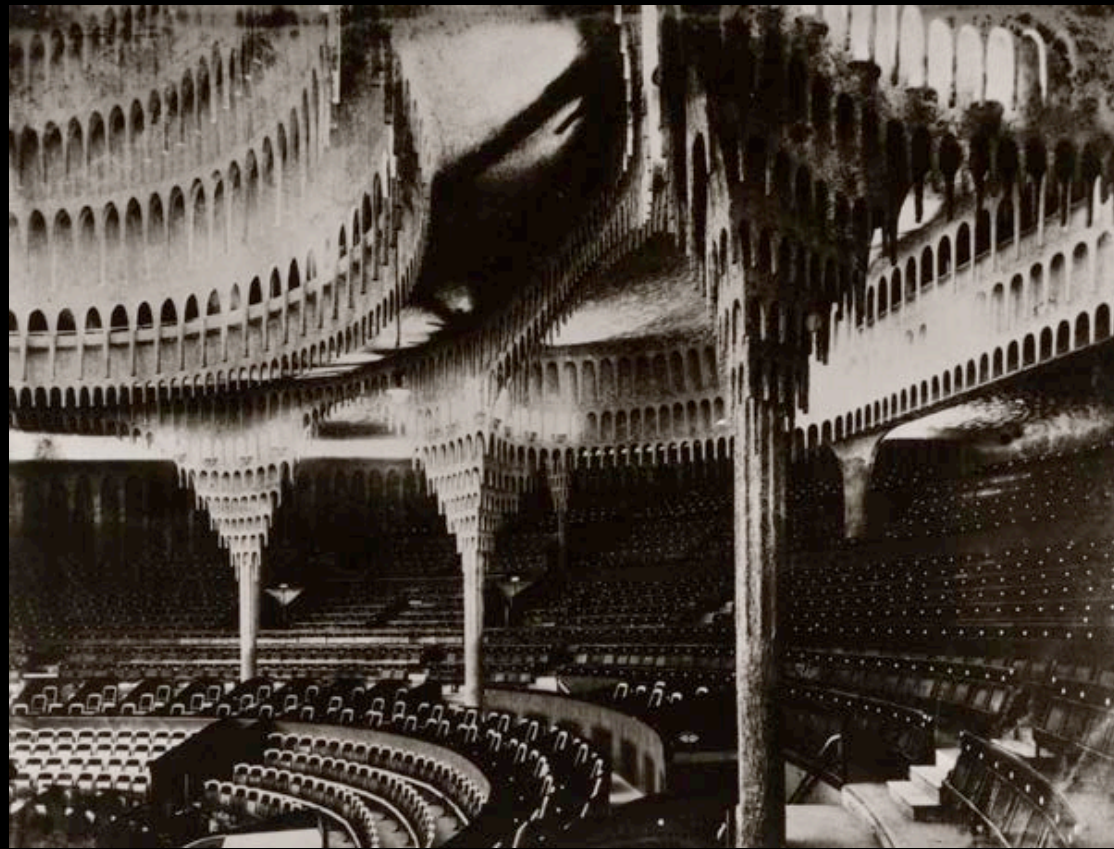


The entrance foyer was adorned with fountain-like columns, and led to a cavernous, domed amphitheater hung with stylized 'stalactites'.



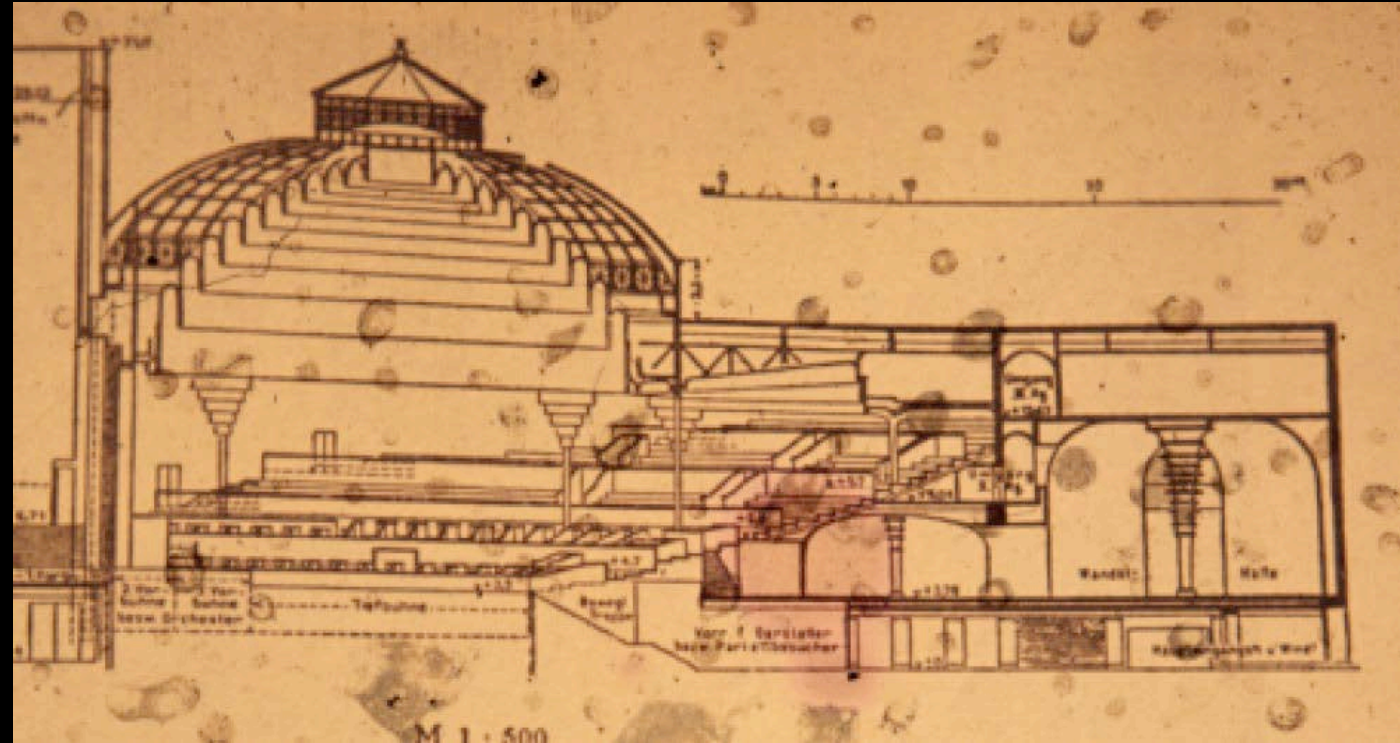
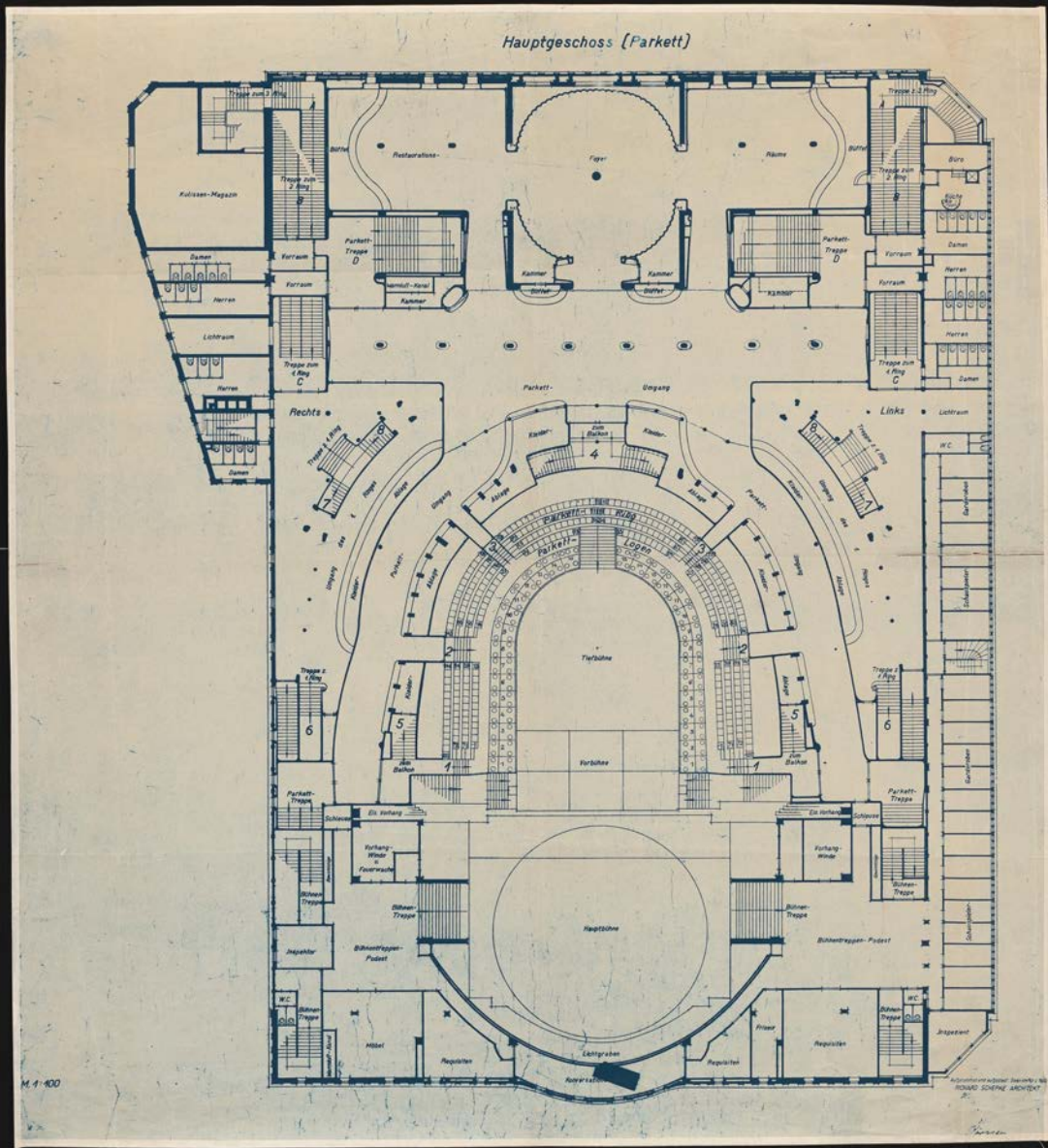


This vast grotto was dramatically lit with colored lights, and even the ceiling was dotted with lightbulbs emulating the night sky's stars.

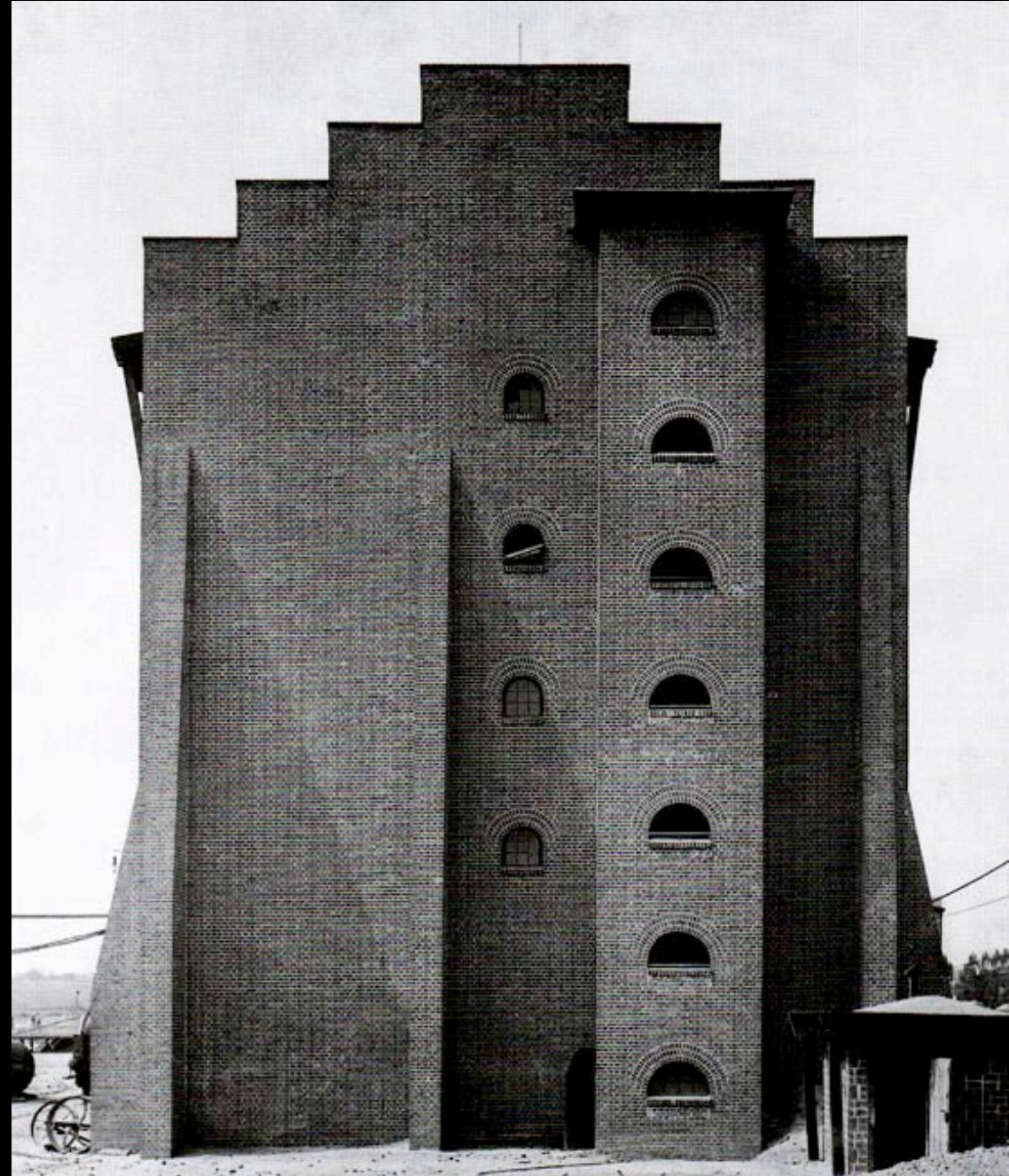


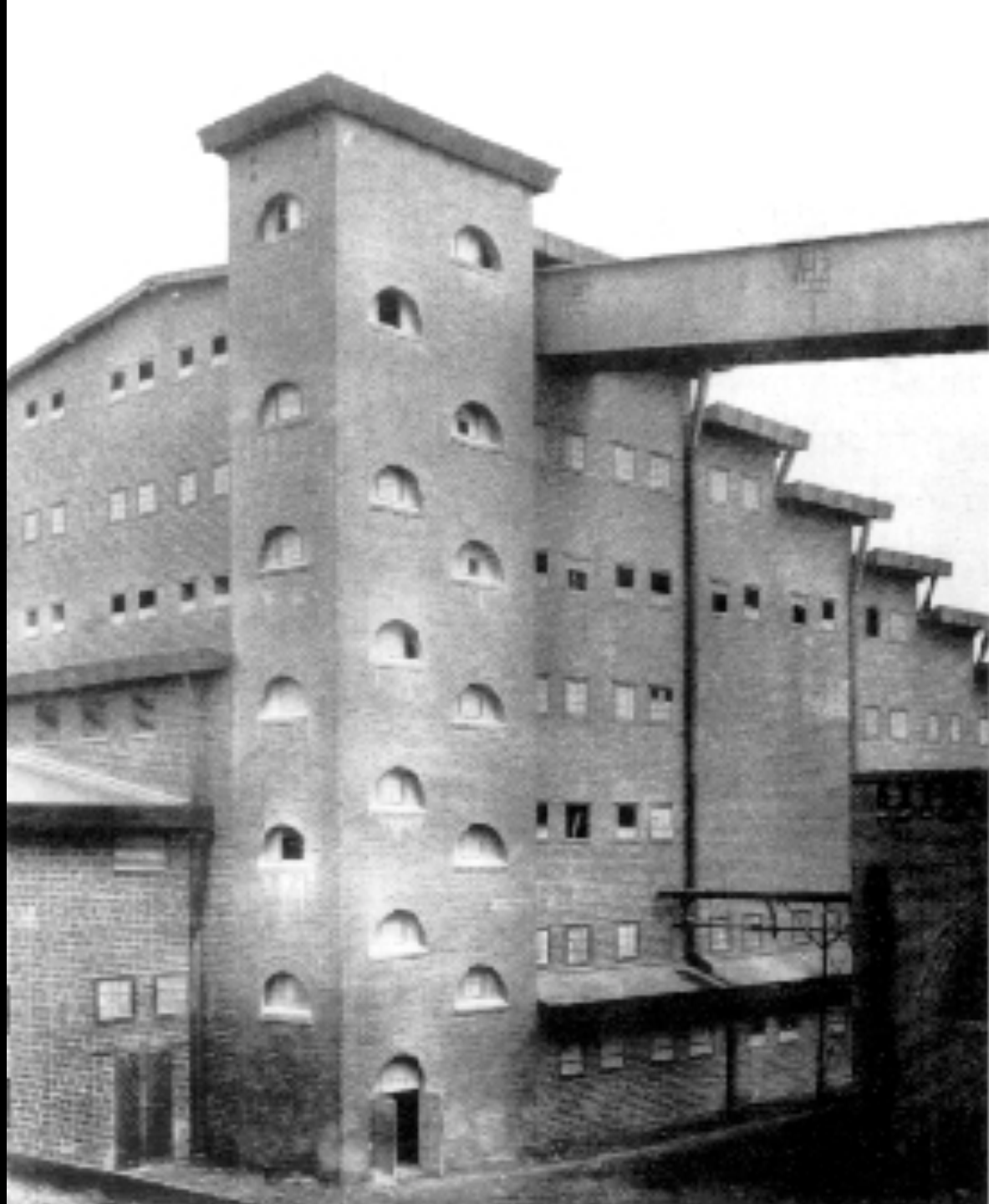
Hans Poelzig, Grosse Schauspielhaus, Berlin, 1919

The theatre had highly advanced technology, which included a large revolving stage and other innovations.



Hans **Poelzig**. Sulphuric Acid Factory in **Luban**, Poland, 1911-1912





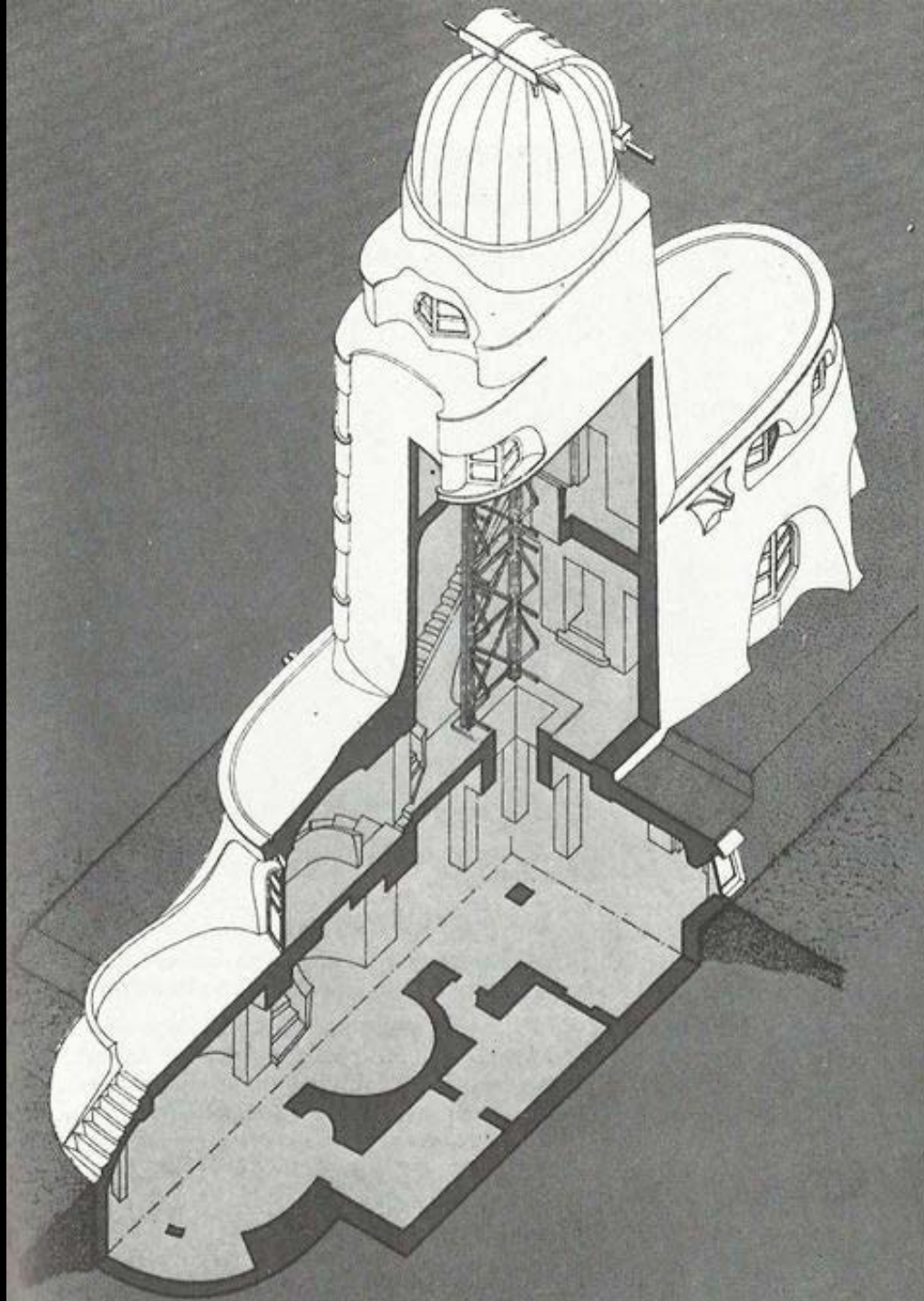


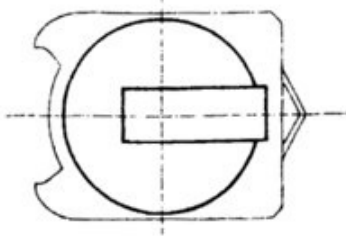
Eric Mendelsohn, Einstein Tower,
Potsdam, 1919 NOTE: Not Cologne,
example of Expressionist Architecture

The exterior was originally conceived
in concrete, but due to construction
difficulties with the complex design
and shortages from the war, much of
the building was actually realized in
brick, covered with stucco.





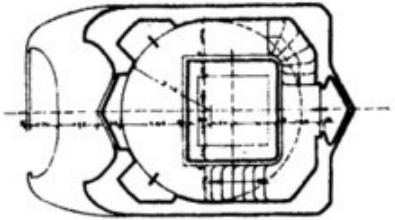




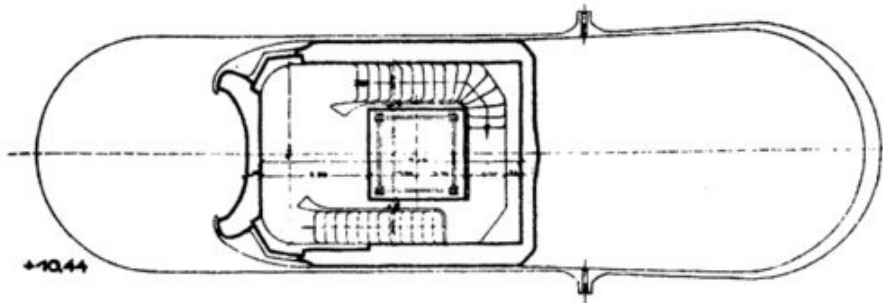
+16,55

GROUND PLANS

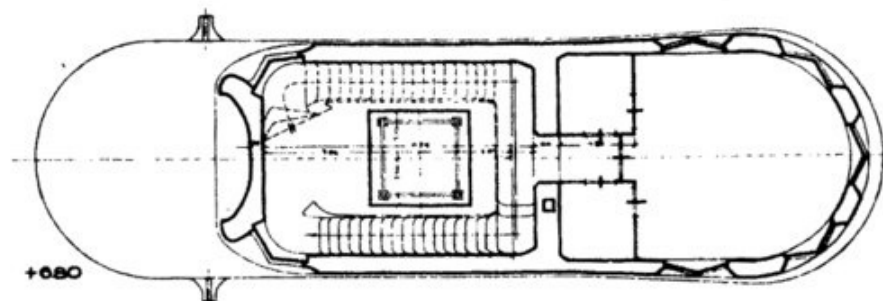
- + 0 BASEMENT FLOOR. THE LABORATORY WITH MIRRORS, ARC-LAMP, ELECTRIC OVEN, AND WALL FOR DOUBLE-ACTION CAMERA, FIXED TEMPERATURE ROOM WITH GRILLE AND PRISMATIC-SPECTROGRAPH. ROOM FOR MICROPHOTOMETRICS, WITH ROOM FOR STORAGE BATTERIES AND DARK-ROOM.
- + 3,39 ENTRANCE, STAIRCASE-HALL AND OFFICE.
- + 6,80 STAIRCASE-HALL, NIGHT QUARTERS.
- + 10,44 BASE FOR LENSES.
- + 14,45 BASE FOR CUPOLA WITH COELOSTAT.
- + 16,55 CUPOLA.



+14,45



+10,44

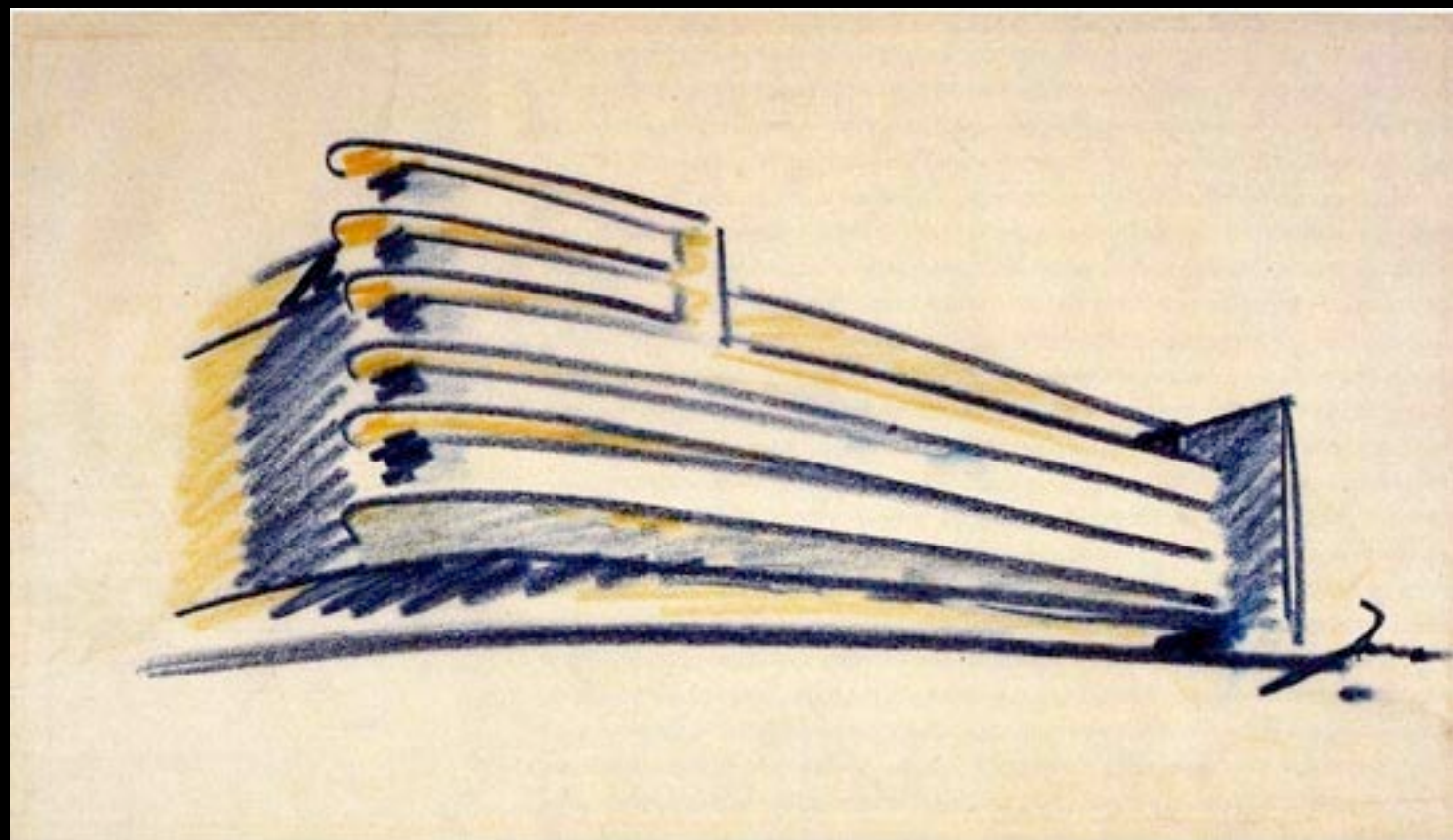


+6,80

It is still a working solar observatory today. Light from the telescope is directed down through the shaft to the basement where the instruments and laboratory are located.



Mendelsohn, Petersdorff Store,
Breslau (Wroclaw), Poland, 1927





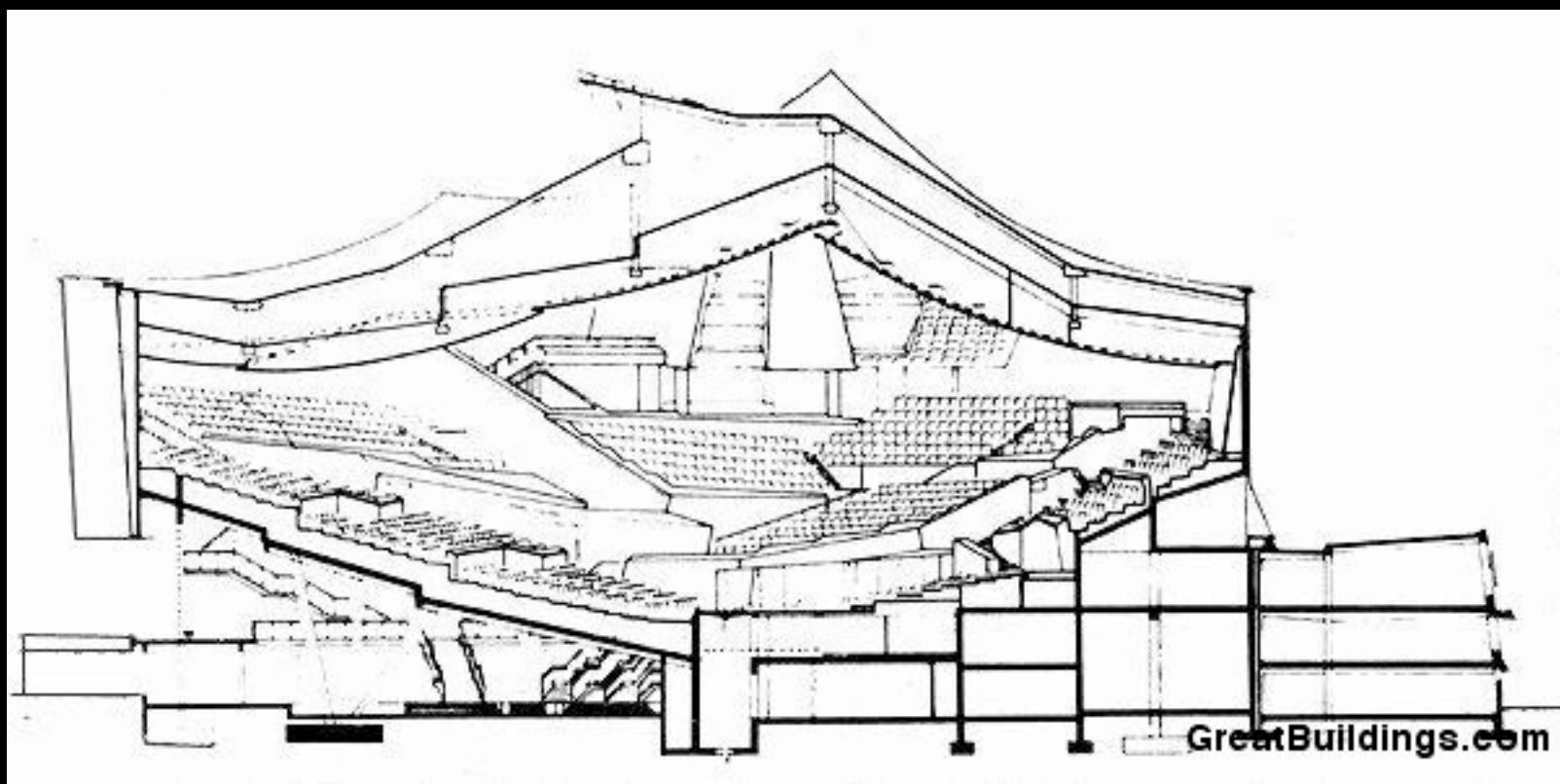
Hans Scharoun, Berlin Philharmonic, Berlin, 1956-1963





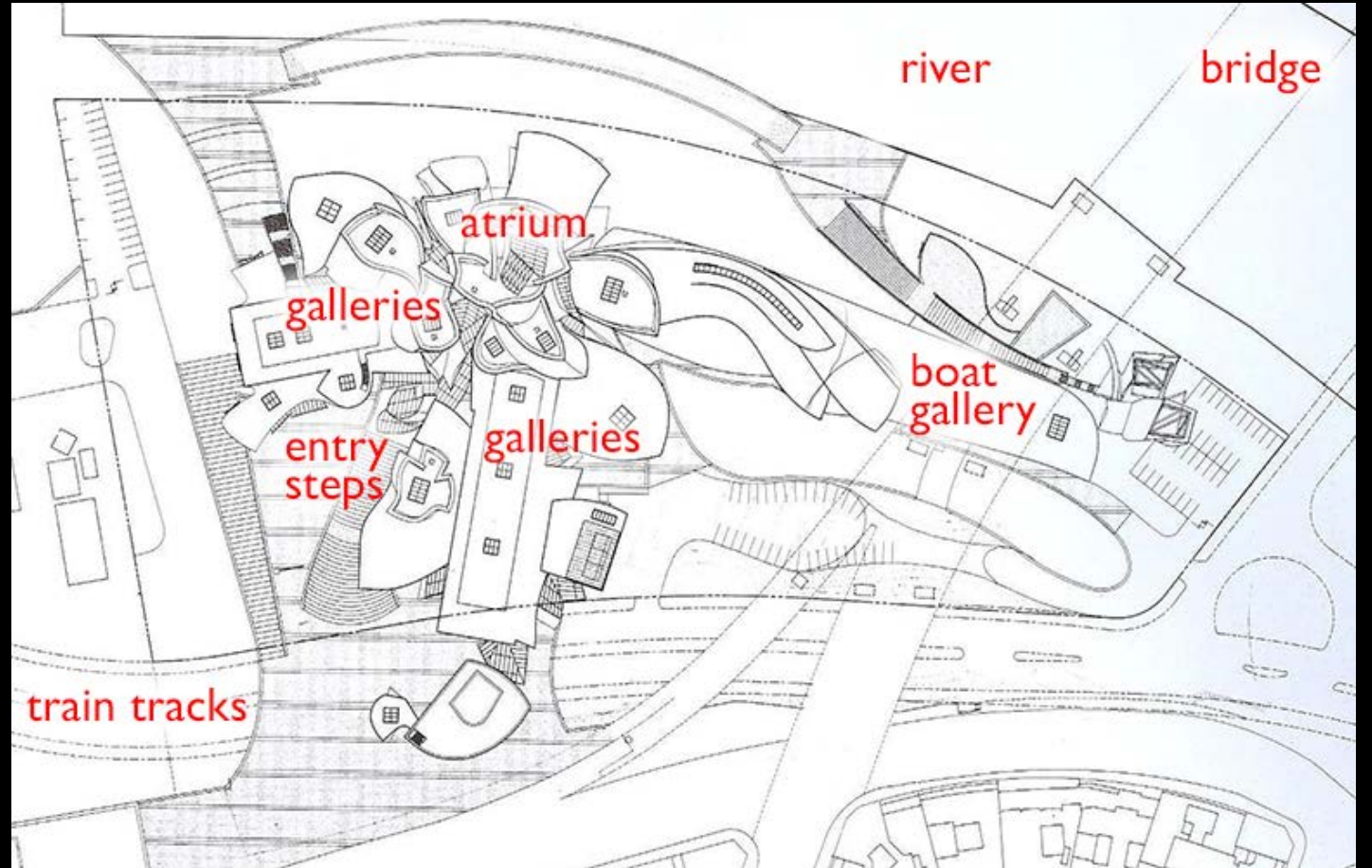






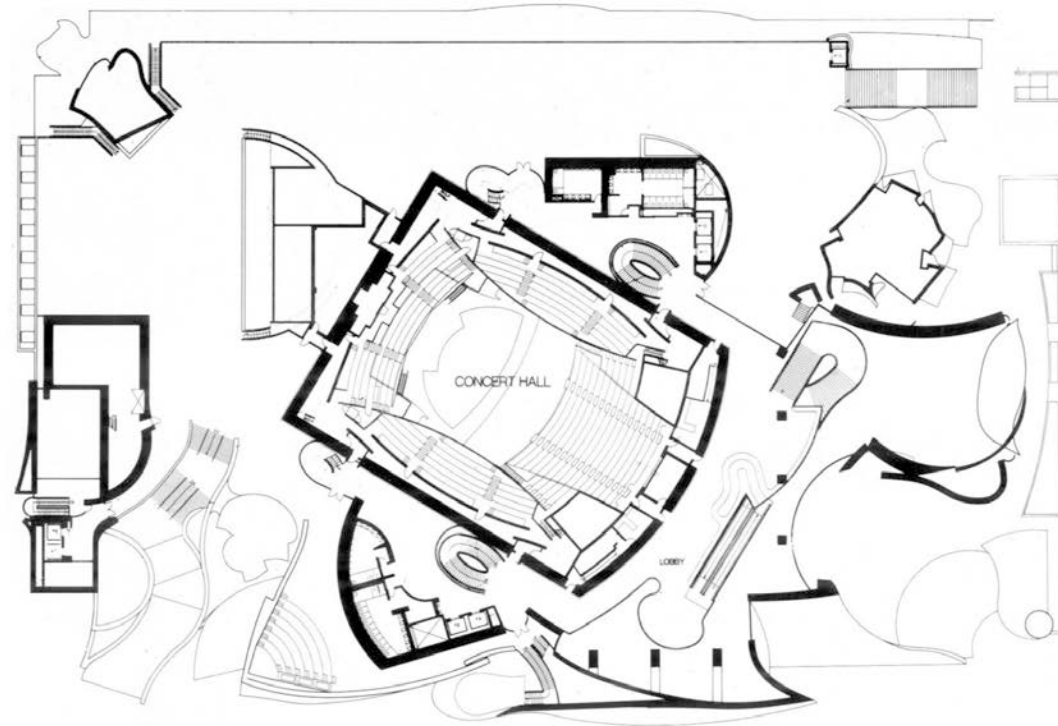
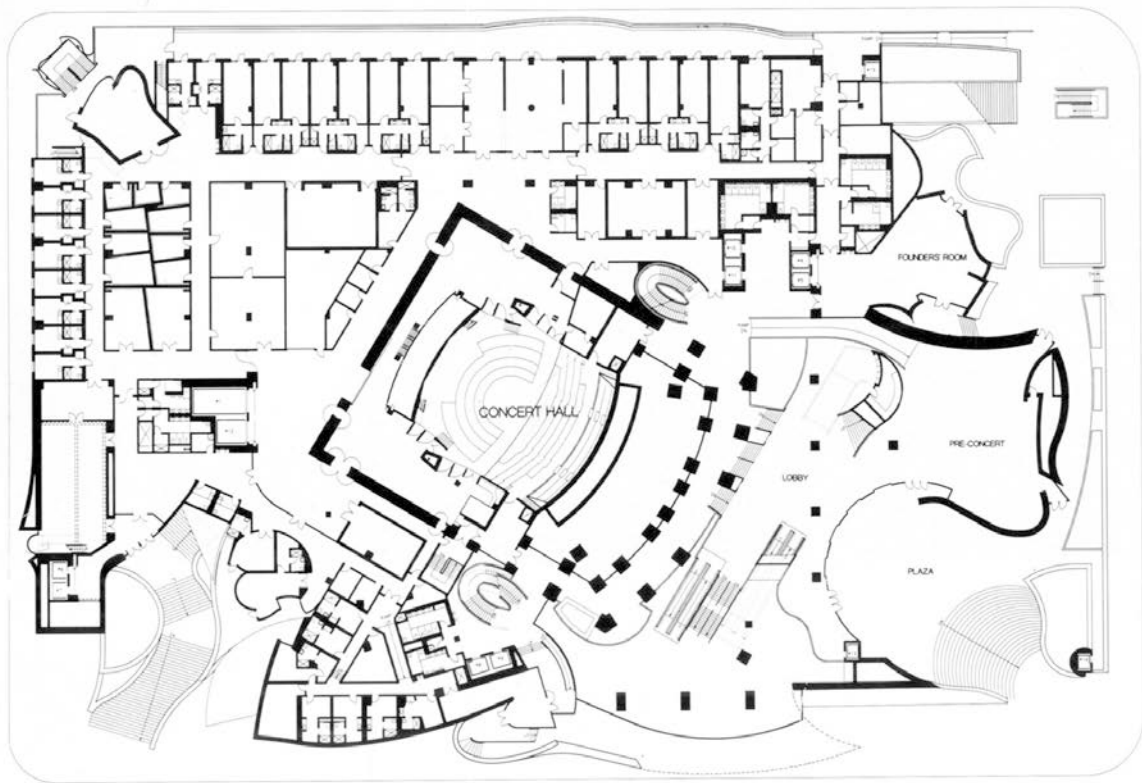
Frank Gehry, Bilbao Guggenheim, Bilbao, Spain, 1997





Frank Gehry, Walt Disney Concert Hall, Los Angeles, 1999-2003

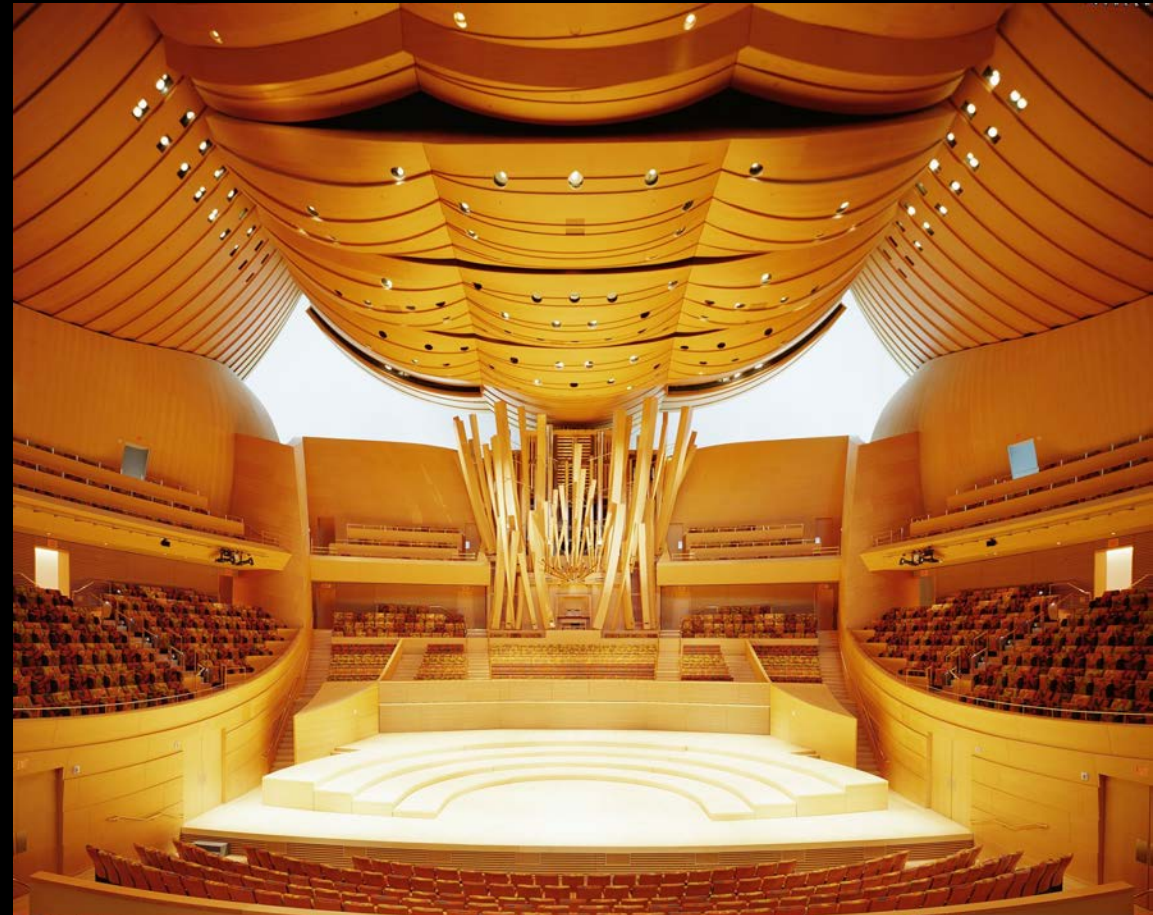




Hans Scharoun, Berlin Philharmonic, Berlin,
1956-1963



Frank Gehry, Walt Disney Concert Hall, Los Angeles,
1999-2003



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



Cathedral and Craft

Umfang der Lehre.

Die Lehre im Bauhaus umfaßt alle praktischen und wissenschaftlichen Gebiete des bildnerischen Schaffens.

- A. Baukunst.
- B. Malerei.
- C. Bildhauerei.

einschließlich aller handwerklichen Zweiggebiete.

Die Studierenden werden sowohl handwerklich (1) wie zeichnerisch-malerisch (2) und wissenschaftlich-theoretisch (3) ausgebildet.

1. Die handwerkliche Ausbildung — sei es in eigenen allmählich zu ergänzenden, oder fremden durch Lehrvertrag verpflichteten Werkstätten — erstreckt sich auf:

- a) Bildhauer, Steinmetzen, Stukkature, Holzbildhauer, Keramiker, Gipsgießer,
- b) Schmiede, Schlosser, Giesser, her,
- c) Tischler,
- d) Dekorationsmaler, Glasmaler, Mosaiker, Emalliere,
- e) Radierer, Holzschnitzer, Lithographen, Kunstdrucker, Zinnober,
- f) Weber.

Die handwerkliche Ausbildung bildet das Fundament der Lehre im Bauhause. Jeder Studierende soll ein Handwerker lernen.

2. Die zeichnerische und malerische Ausbildung erstreckt sich auf:

- a) Freies Skizzieren aus dem Gedächtnis und der Fantasie,
- b) Zeichnen und Malen nach Kopien, Akten und Tieren,
- c) Zeichnen und Malen von Landschaften, Figuren, Pflanzen und Stillleben,
- d) Komponieren,
- e) Ausfüllen von Wandbildern, Tafelbildern und Bilderscheinen,
- f) Entwerfen von Ornamenten,
- g) Schriftzeichnen,
- h) Konstruktions- und Projektionszeichnen,
- i) Entwerfen von Außen-, Garten- und Innenarchitekturen,
- k) Entwerfen von Möbeln und Gebrauchsgegenständen.

3. Die wissenschaftlich-theoretische Ausbildung erstreckt sich auf:

- a) Kunstgeschichte — nicht im Sinne von Stilgeschichte vorgetragen, sondern zur lebendigen Erkenntnis historischer Arbeitsweisen und Techniken,
- b) Materialkunde,
- c) Anatomie — am lebenden Modell,
- d) physikalische und chemische Farbenlehre,
- e) rationelles Malverfahren,
- f) Grundbegriffe von Buchführung, Vertragsabschlüssen, Verdingungen,
- g) allgemein interessante Einzelvorträge aus allen Gebieten der Kunst und Wissenschaft.

Einteilung der Lehre.

Die Ausbildung ist in drei Lehrgänge eingeteilt:

- I. Lehrgang für Lehrlinge.
- II. „ „ Gesellen.
- III. „ „ Jungmeister.

Die Einzelausbildung bleibt dem Ermessen der einzelnen Meister im Rahmen des allgemeinen Programms und des in jedem Semester neu aufzustellenden Arbeitsverteilungsplanes überlassen.

Um den Studierenden eine möglichst vielseitige, umfassende technische und künstlerische Ausbildung zuteil werden zu lassen, wird der Arbeitsverteilungsplan zeitlich so eingeteilt, daß jeder angehende Architekt, Maler oder Bildhauer auch an einem Teil der anderen Lehrgänge teilnehmen kann.

Aufnahme.

Aufgenommen wird jede abgeschlossene Person ohne Rücksicht auf Alter und Geschlecht, deren Vorbildung vom Meisterstab des Bauhauses als zureichend erachtet wird, und soweit es der Raum zuläßt. Das Lehrgeld beträgt jährlich 180 Mark (es soll mit steigendem Verdienst des Bauhauses allmählich ganz verschwinden). Außerdem ist eine einmalige Aufnahmegebühr von 20 Mark zu zahlen. Ausländer zahlen den doppelten Betrag. Anfragen sind an das Sekretariat des Staatlichen Bauhauses in Weimar zu richten.

APRIL 1919.

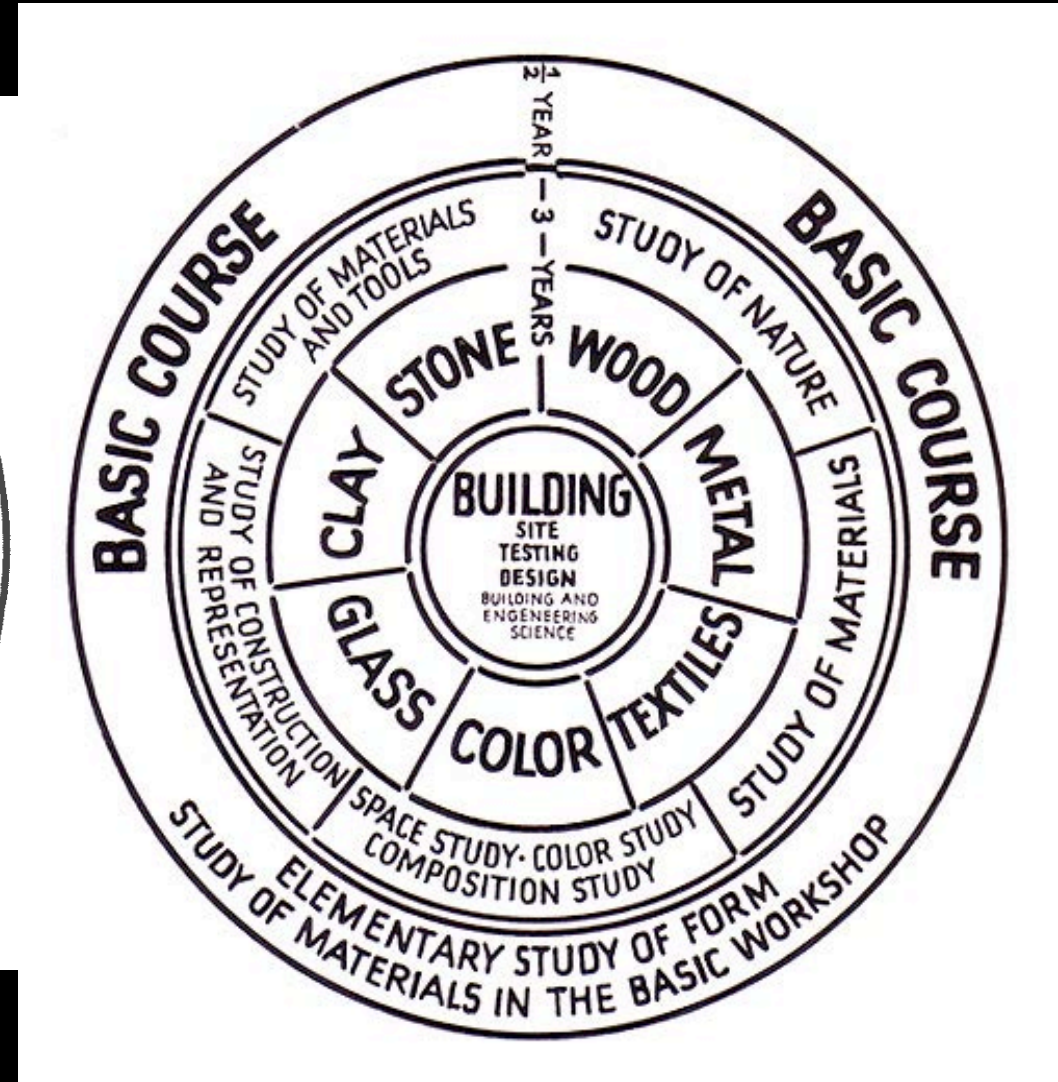
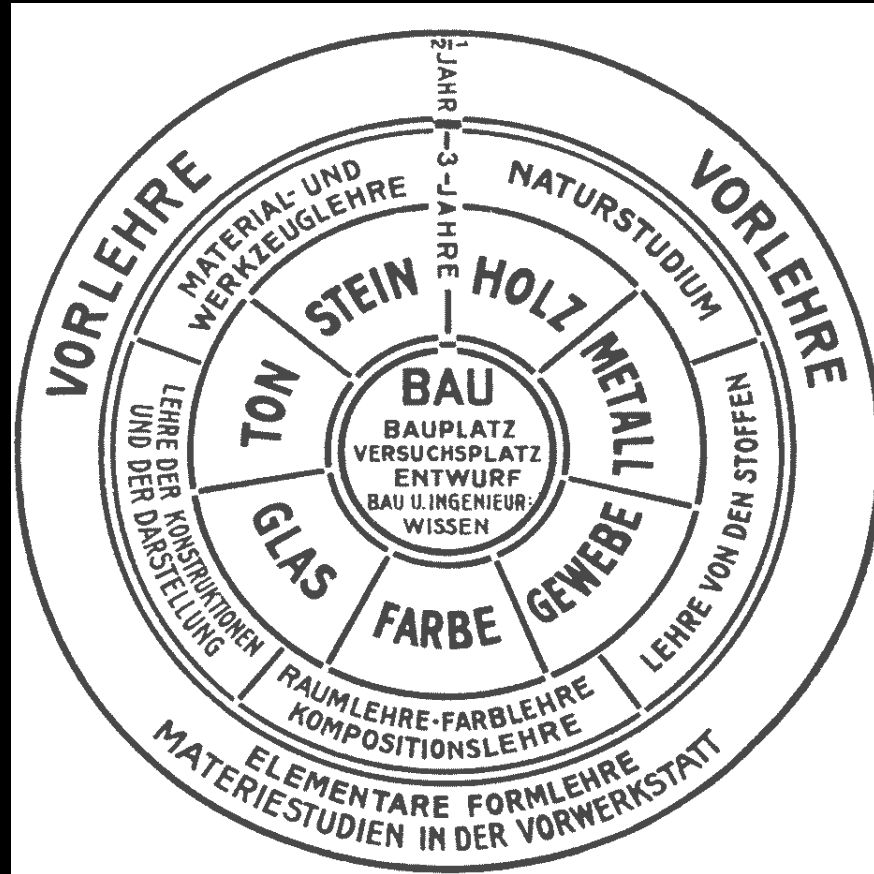
Die Leitung des
Staatlichen Bauhauses in Weimar:
Walter Gropius.



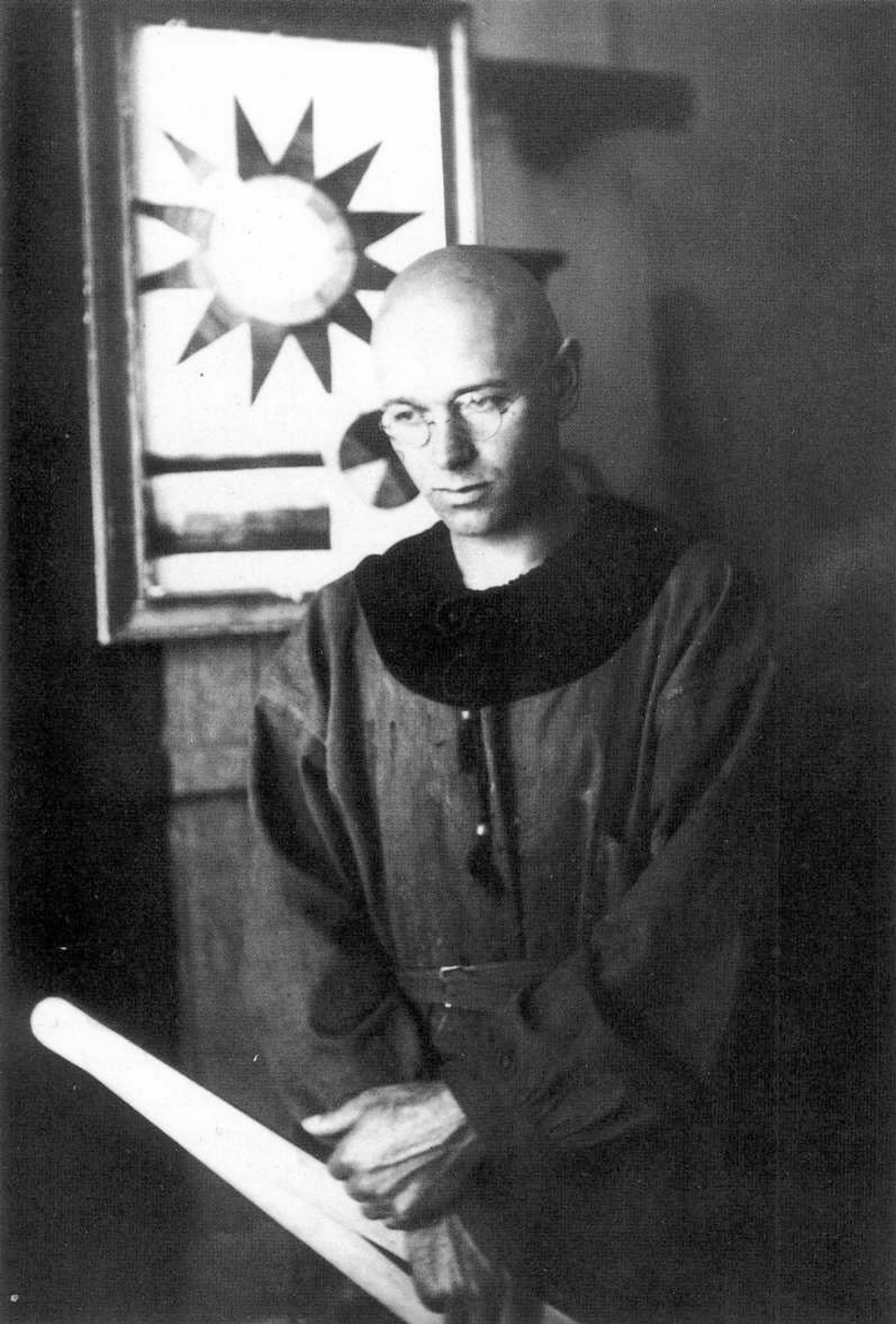
The ultimate goal of all art is the building! The ornamentation of the building was once the main purpose of the visual arts, and they were considered indispensable parts of the great building. Today, they exist in complacent isolation, from which they can only be salvaged by the purposeful and cooperative endeavors of all artisans. Architects, painters and sculptors must learn a new way of seeing and understanding the composite character of the building, both as a totality and in terms of its parts. Their work will then re-imbue itself with the spirit of architecture, which it lost in salon art.

...
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.

Walter Gropius, Proclamation of the Weimar Bauhaus, 1919



Bauhaus curriculum



Johannes Itten [1888-1967] developed the Bauhaus preliminary course – a required course – in order to join one of the workshops. With Itten, the Mazdaznan cult also reached the Bauhaus. When, as a consequence, it came to differences, he left the Bauhaus and founded the Itten School in Berlin. In October 1919, Itten was appointed as one of the first masters at the Staatliches Bauhaus in Weimar by Walter Gropius. Until 1922–1923, he was both director of the preliminary course which he had developed independently for the introductory semester and master of form of all the workshops except for the ceramic, bookbinding and printing workshops. Itten made a significant contribution to the Bauhaus by promoting the Mazdaznan cult, which spans religions and philosophies. After internal differences with Walter Gropius, Itten left the Bauhaus in March 1923.

“Without movement there is no perception, without perception there is no form and without form there is no substance.”



Itten was one of the first people to define and identify strategies for successful color combinations. Through his research he devised seven methodologies for coordinating colors utilizing the hue's contrasting properties. These contrasts add other variations with respect to the intensity of the respective hues; i.e. contrasts may be obtained due to light, moderate, or dark value.



Designed by Henry van de Velde for the Grand Ducal Saxon School of Arts and Crafts, this smaller building was constructed from 1905 to 1906 and was used by the State Bauhaus of Weimar between 1919 and 1925.

<https://www.uni-weimar.de/en/university/profile/unesco-world-heritage-bauhaus/van-de-velde-building/>



Henry van de Velde (1863-1957)



Van de Velde, Werkbund Exhibition
Theatre, Cologne, 1914





Henry van de Velde, smoking room, 1895
exhibited at Samuel Bing's L'Art Nouveau
Store, Paris

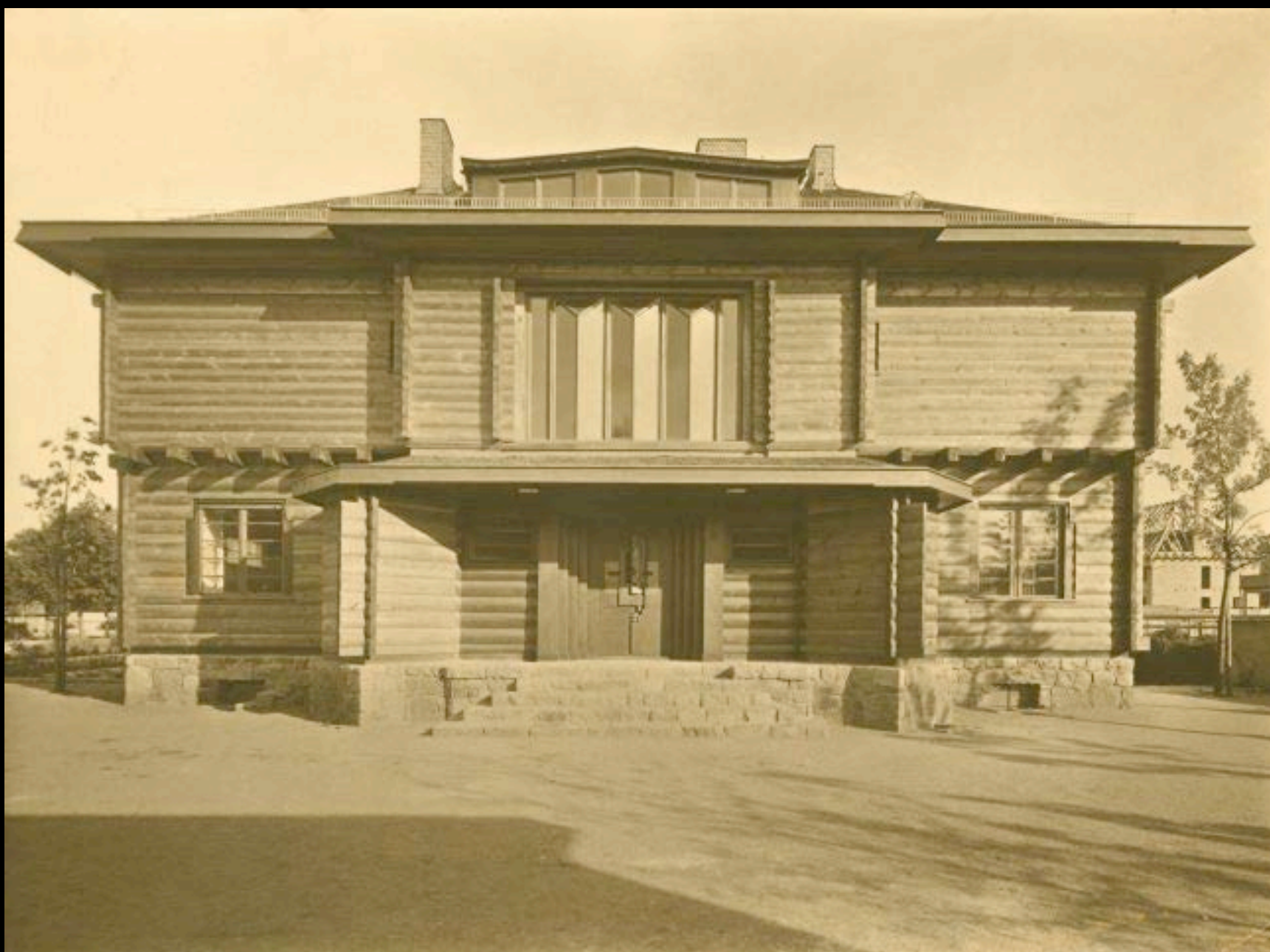








Central staircase, Bauhaus, Weimar



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

Gesamtkunstwerk

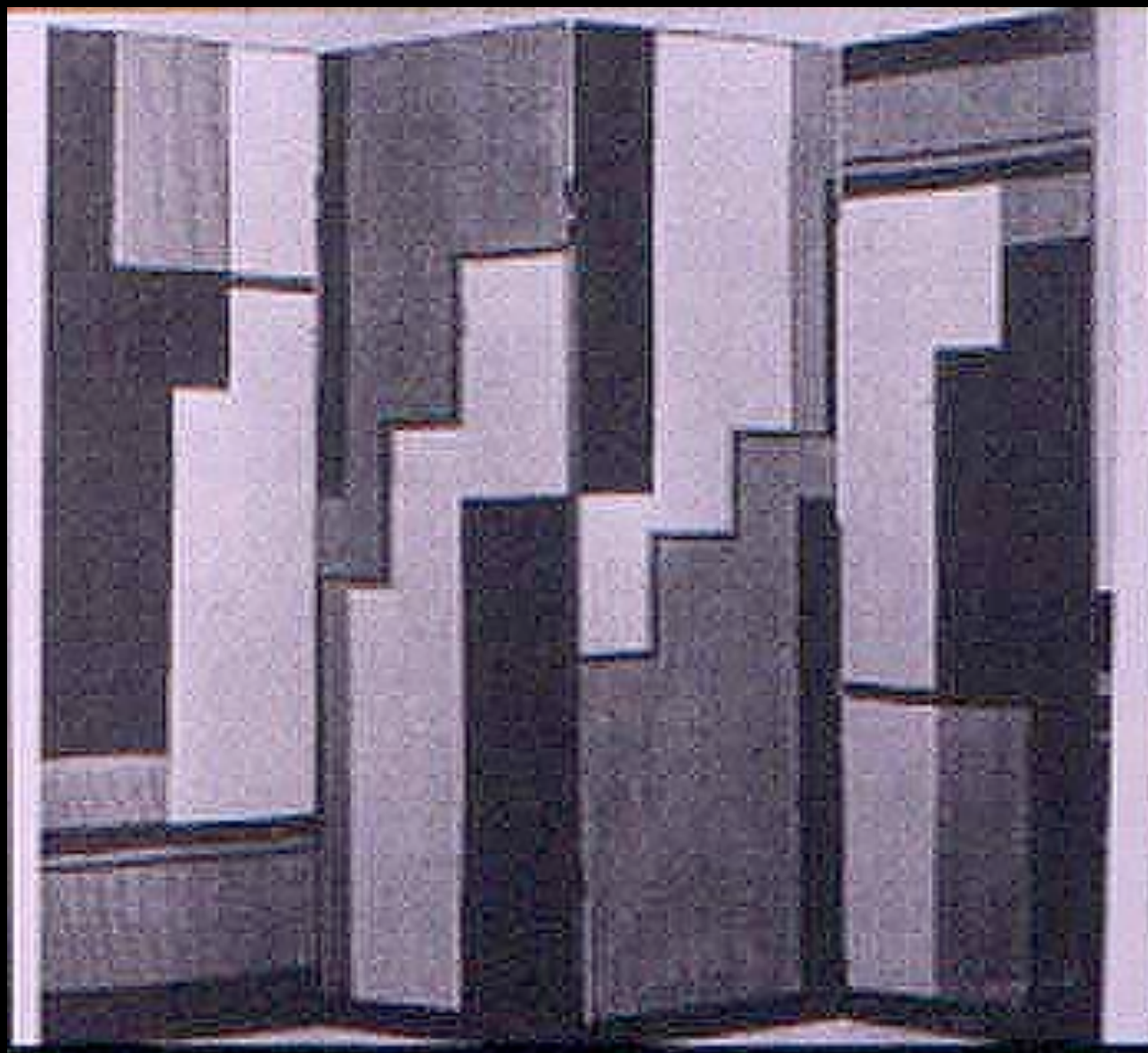
total work of art

synthesis of the arts





Josef Albers, Window from Sommerfeld House



Dorte Helm, Folding screen from Sommerfeld House



sachlich

**factual
objective**

Wohnmaschine

living machine

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

Gesamtkunstwerk

total work of art

synthesis of the arts

from craft to machine

prototypes

functionalism

1.0. BESTANDSPLAN
 2.0. QUERSCHNITT
 3.0. Längsschnitt
 4.0. Grundriss



GRUNDRISS



GARTENPLAN



1. STOKK

ML 1:100



AUSSTELLUNG STAATL. BAUKAUS WEIMAR 1903.
 EINFAMILIENHAUS.

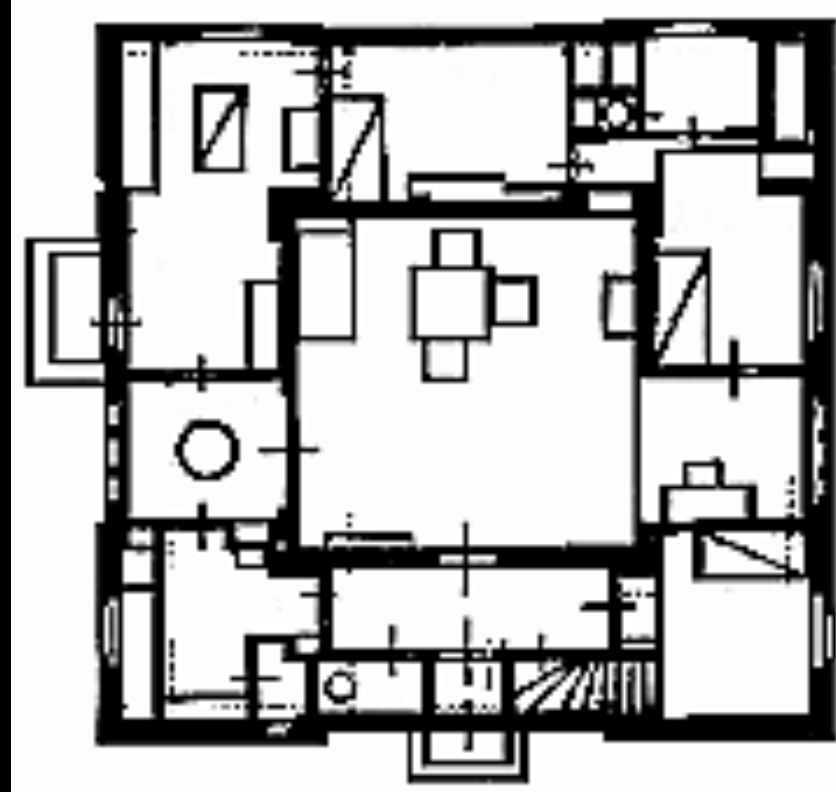


VERM. 1:100

Handwritten signature

WEIMAR 1903





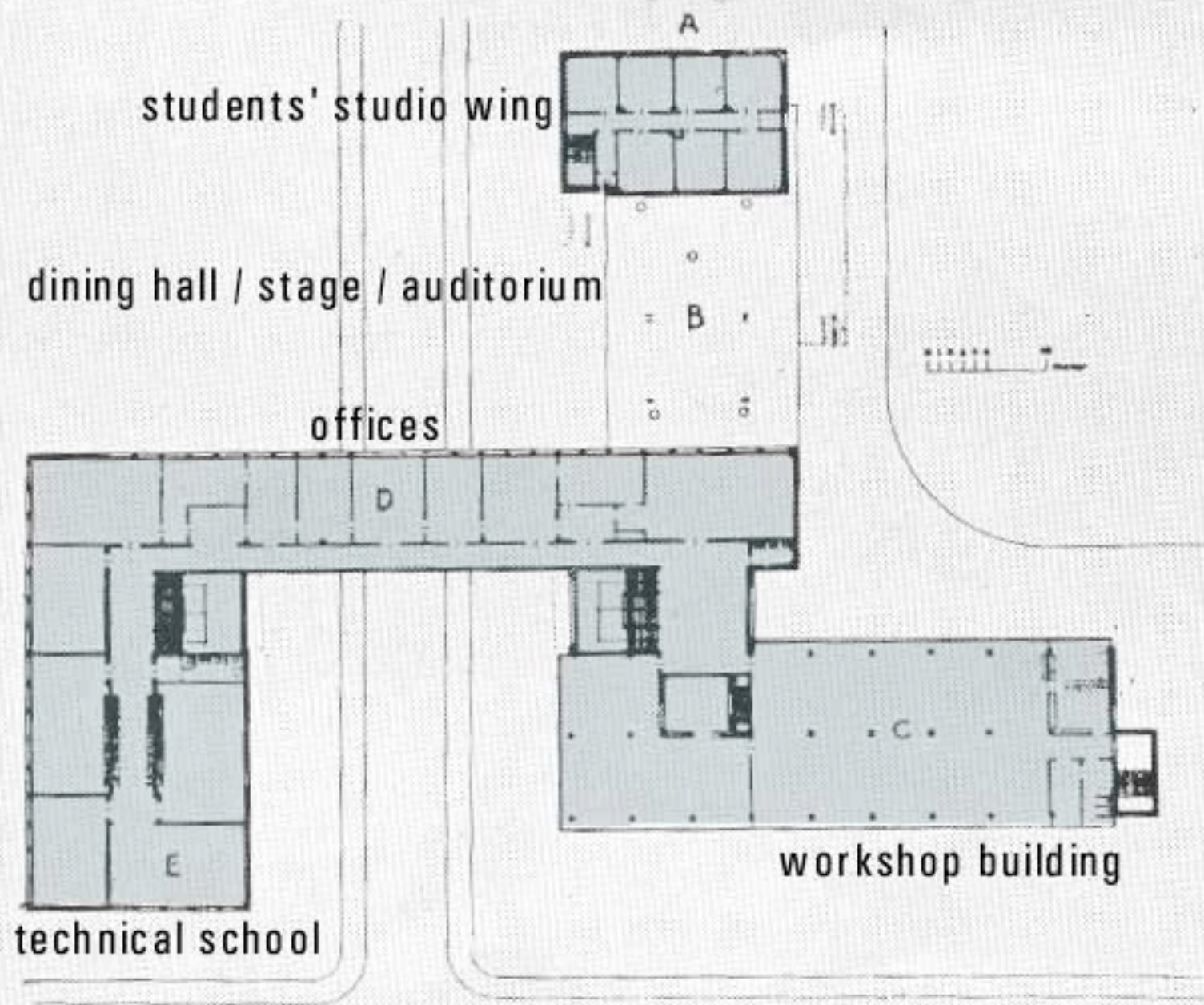


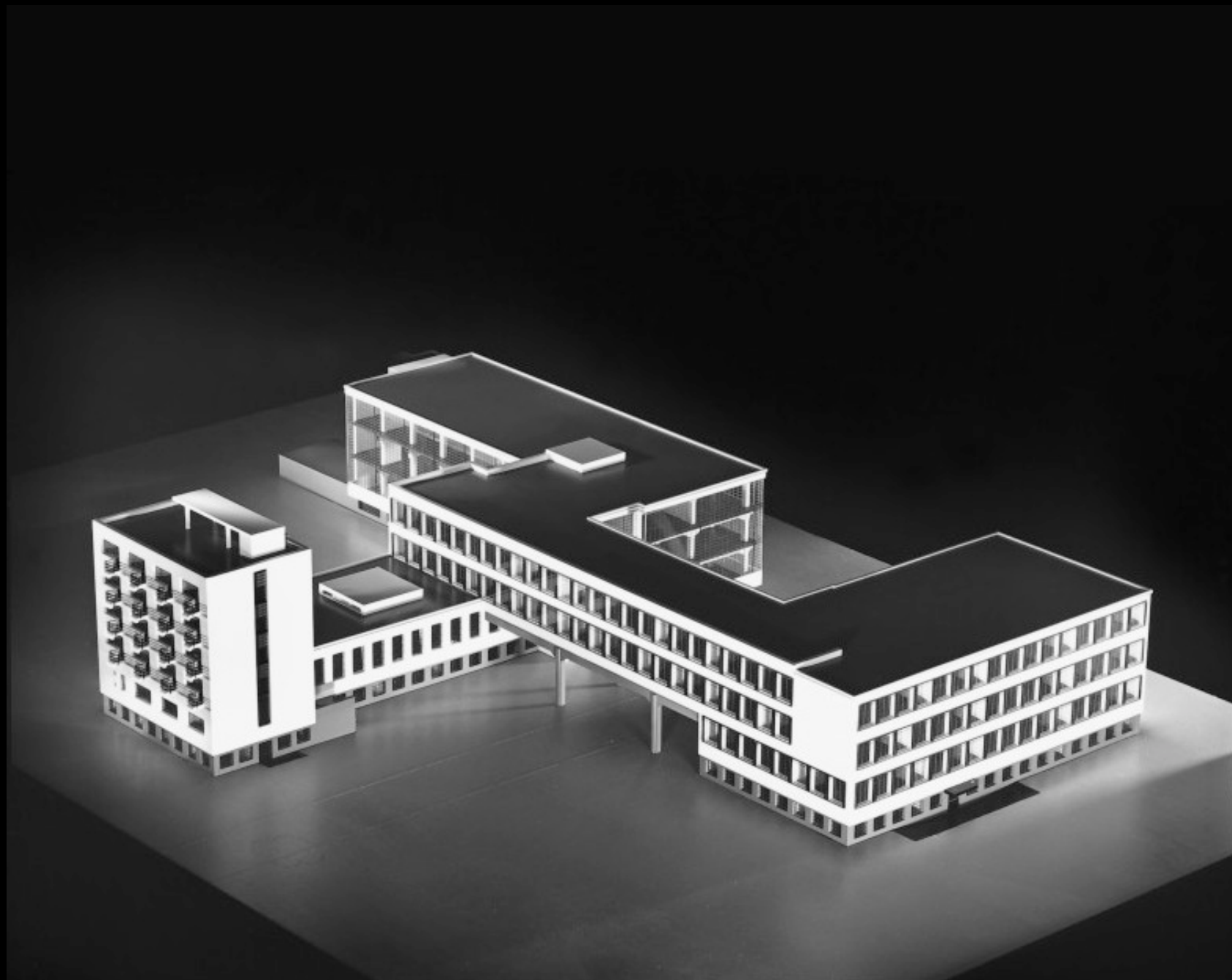


Walter Gropius, Bauhaus School, Dessau, 1926



Poster for Junkers Flugzeug- und Motorenwerke AG, a major German aircraft and aircraft engine manufacturer. It produced some of the world's most innovative and best-known airplanes over the course of its fifty-plus year history in Dessau, Germany. It was founded there in 1895 by Hugo Junkers. The Stuka was a dive bomber.

















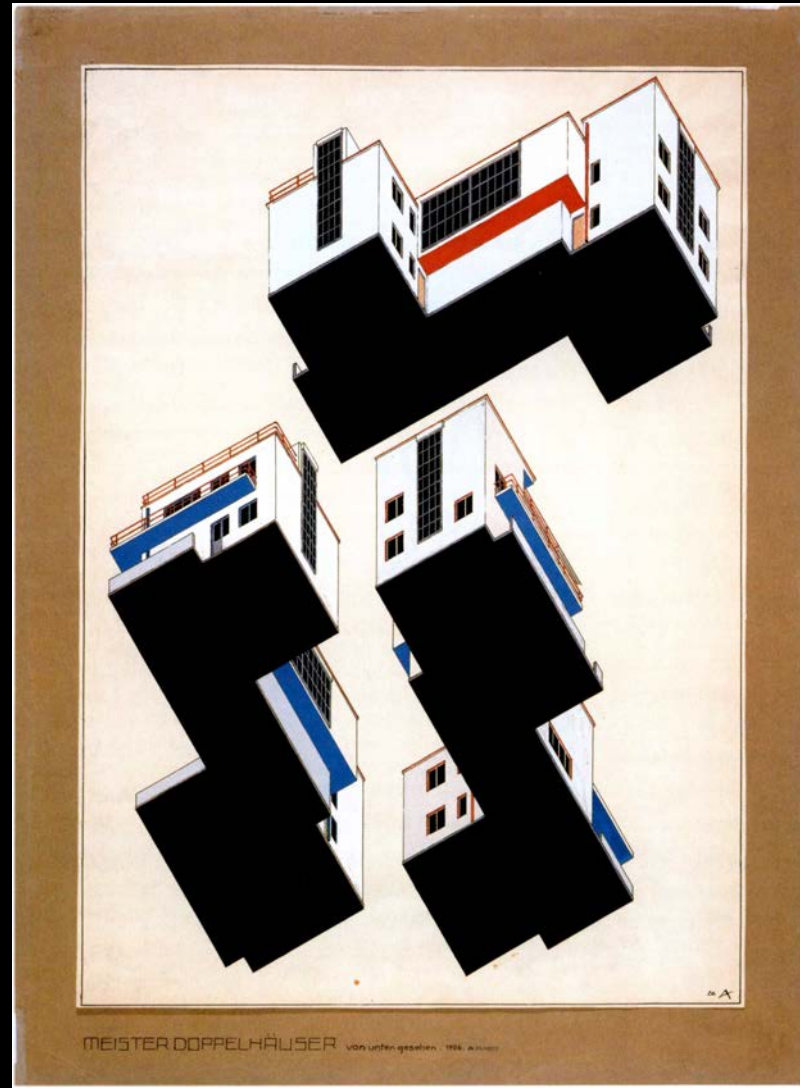


Auditorium, Marcel Breuer designed chairs

Breuer tells us speaking theoretically that the “pieces of metal furniture are part of a modern space. They have not style, since the form intended expresses nothing other than their purpose and the construction necessary to meet it. The new space should not be a self-portrait of the architect, nor at the beginning should it reflect an individual idea of the souls of the people who use it.”



Walter Gropius, Master House: Duplex, 1926

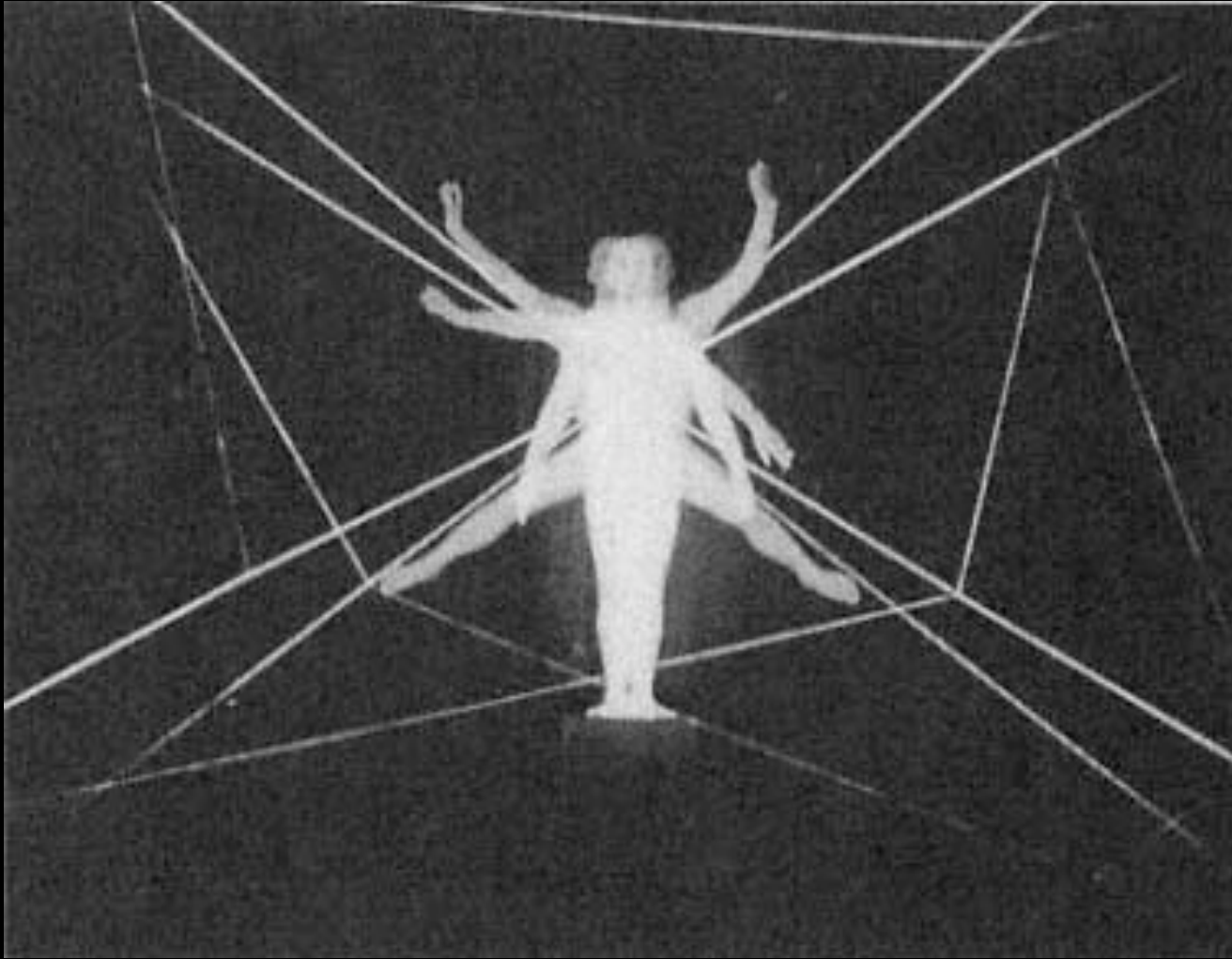


The Masters' Houses were achieved according to the same construction of prefabricated units and as though interlocking cubic prisms. There were five of these houses, one for the director and four double houses for the Masters. In these houses lived Gropius, Moholy-Nagy, Feininger, Muche, Schlemmer, Kandinsky and Klee.



Wassily Kandinsky, Black Relationship, 1924

Kandinsky, the Russian-born painter, also taught at the Bauhaus. In particular he taught theories of color and form. He claimed "color like all other phenomena must be examined from different viewpoints, in different ways and by appropriate methods. From a purely scientific point of view, these ways may be divided into three areas: physics and chemistry; physiology; and psychology. He was also careful to claim that "Our work at the Bauhaus is in general subordinate to the finally dawning unity of different realms that only a short time ago were held to be strictly divided from one another: art, science and industry."



Left: Experimental Dance, Bauhaus, 1927

Right: Bauhaus Band, photo by T. Lux
Feininger, 1927-29

