



Theories of Architecture

ENAR 329

Arch. Nadia Asali

Lecture 4

Modernity and Modernism

23th October 2021

Modernity and Modernism

Definitions and Concepts

What is Modernity ?

Man must constantly destroy himself in order to construct himself all over again. Theo van Doesburg, 1918

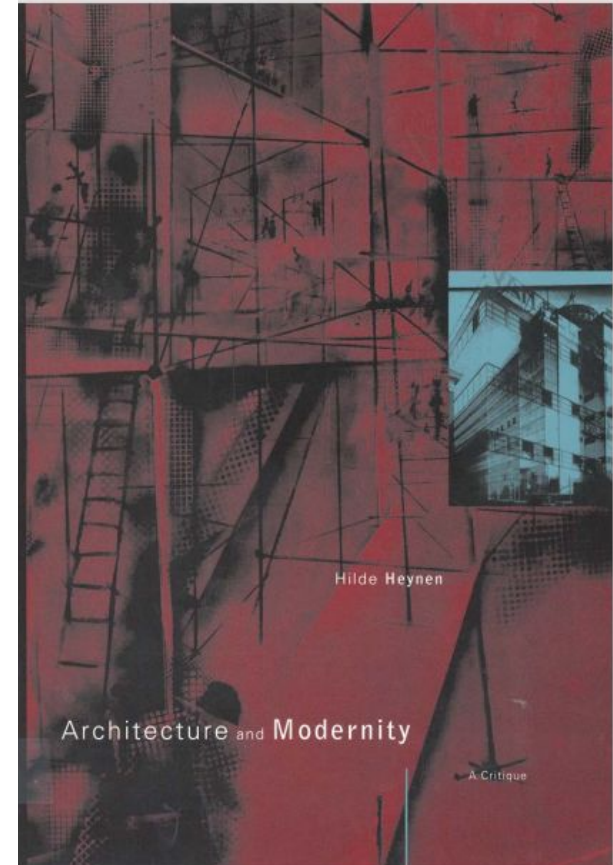
Modernity

- new, recent, what is from the latest times. **It is opposed to ancient.”**
- **The general characteristics of these relationships include: an emphasis upon rationality and science over tradition and myth.**

A belief in progress and improvement; confidence in human mastery over nature; a focus on humanism, individuality, and self-consciousness

Modernity is what gives the present the specific quality that makes it different from the past and points the way toward the future.

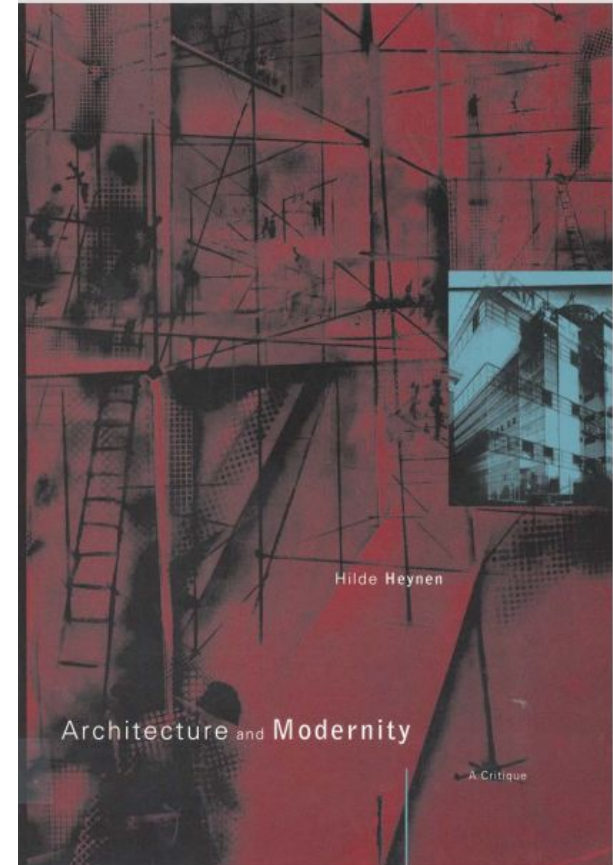
Modernity is also described as being a break with tradition.
Modernity is constantly in conflict with tradition and it considers the struggle for change is its main driver.



-Modernity stands for the attitude toward life that is associated with **a continuous process of evolution and transformation.**

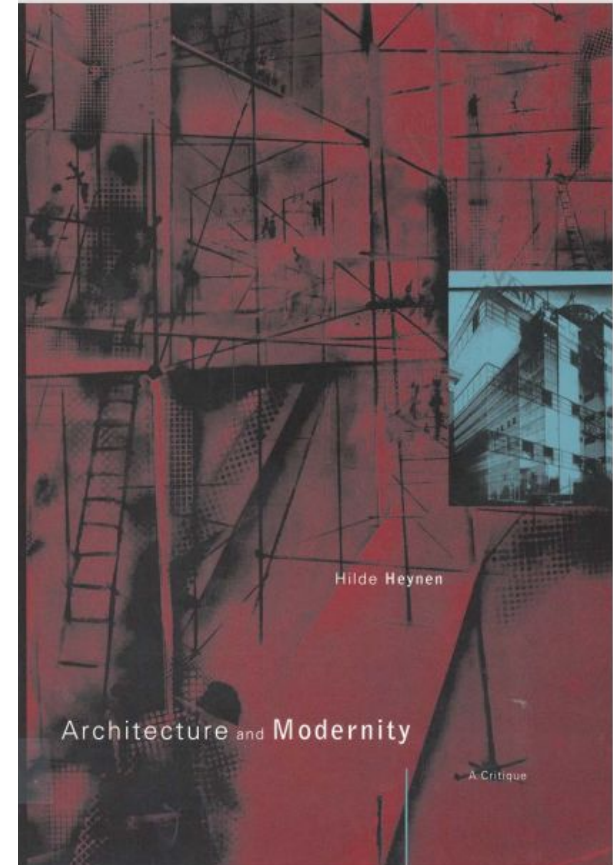
-with an orientation toward a future that will be different from the past and from the present. **The experience of modernity provokes responses in the form of cultural tendencies and artistic movements.**

Some of these that proclaim themselves as being in sympathy with the orientation toward the future and the desire for progress are specifically given the name modernism



The term **modernization** *عصرنة* is used to describe **the process of social development, the main features of which are technological advances and industrialization, urbanization and population explosions.**

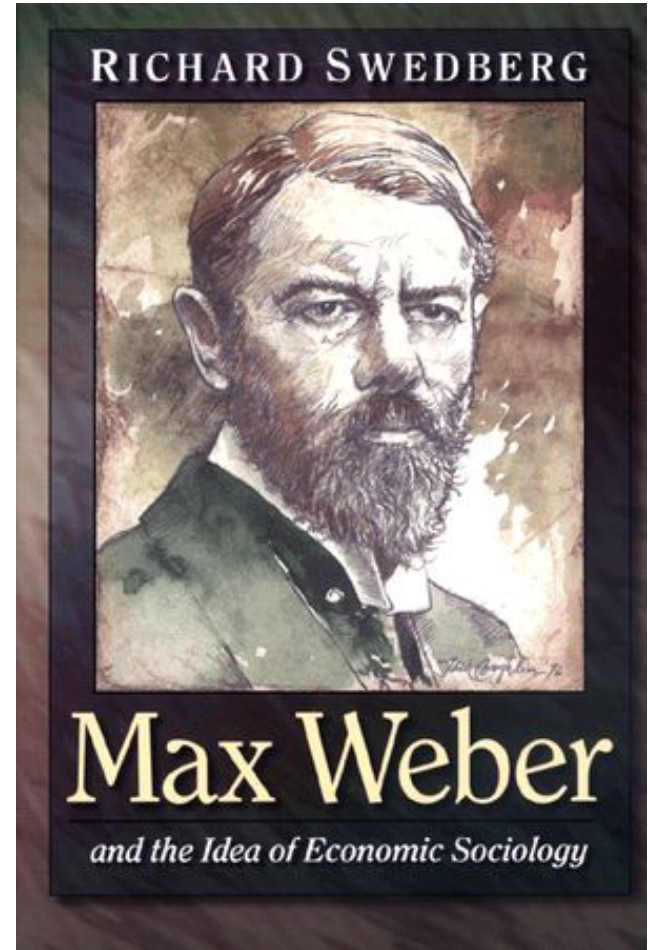
The experience of modernity provokes responses in the form of cultural tendencies and artistic movements. Some of these that proclaim themselves as being in sympathy with the orientation toward the future and the desire for progress are specifically given the name **modernism**



Max Weber Founding father of sociology

Modern society is characterized by **rationalisation**, **secularisation** العلمنة and 'disenchantment' تخلص من الوهم of the world

For Weber, modernization is a **process in which political, social and economic organization is increasingly based on technical and scientific knowledge.**



"To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world - and at the same time, that threatens to destroy everything we have, everything we know, everything we are."

(Marshall Berman 1982)

modern / modernity

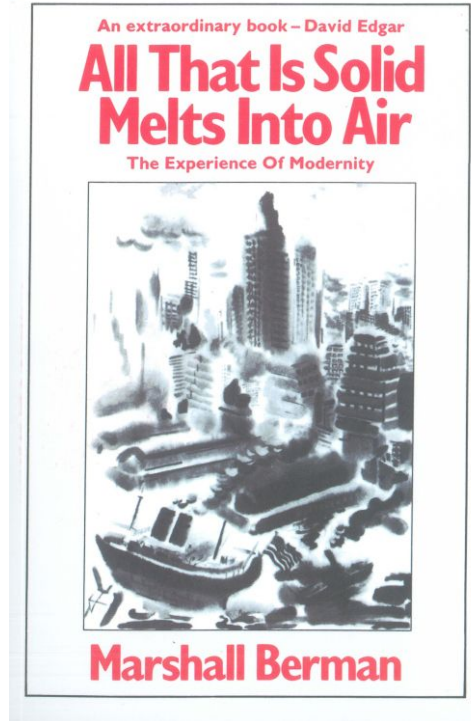
= condition of life

modernization

= socio-economic process

modernism

= tendencies and movements saying 'yes' to modernity



Modernism is a philosophical movement that, along with cultural trends and changes, arose from wide-scale and far-reaching transformations in Western society in the late 19th and early 20th centuries.

The term is often applied to modernist movements at the turn of the 20th century, with efforts to reconcile the principles underlying architectural design with rapid technological advancement and the modernization of society.

There are multiple lenses through which the evolution of modern architecture may be viewed. Some historians see it as a social matter, closely tied to the project of Modernity and thus the Enlightenment.



revolutions. Others see Modern architecture as primarily driven by technological and engineering developments. Still other historians regard



technological and engineering developments. Still other historians regard Modernism as a matter of taste, a reaction against eclecticism and the lavish stylistic excesses of Victorian and Edwardian architecture.

Characterstics

- Common themes of modern architecture include:
- the notion that "Form follows function", a dictum originally expressed by Frank Lloyd Wright's early mentor Louis Sullivan, meaning that the result of design should derive directly from its purpose
- simplicity and clarity of forms and elimination of "unnecessary detail"
- the related concept of "Truth to materials", meaning that the true nature or natural appearance of a material ought to be seen rather than concealed or altered to represent something else
- use of industrially-produced materials; adoption of the machine aesthetic

Modernity as a Project
The Bauhaus



The Bauhaus School of Design, founded by Walter Gropius in 1919, marks the point where proto-Modernism made a clear departure from the romantic-influenced styles of the nineteenth century.

Articulating an entirely new philosophy of design, the Bauhaus' early success in post-World War One Germany and later dispersion across the West in the 1930s formed and **spread Modernism as a distinct identity.**



Derived from the German for “Construction House,” The Bauhaus originated as a German school for architecture and the arts founded by Walter Gropius in 1919. As well as being a template for many architectural schools that followed.

- the institution gave its name to a distinctive style characterized by an
- emphasis on function.**
- little ornamentation.**
- **and a fusion of balanced forms and abstract shapes.**



The Origins of Bauhaus Architecture

The Bauhaus school was formed six months after the end of World War I in 1919.

In the school's founding manifesto, Gropius wrote that building is **“the ultimate aim of all artistic activity”** and that “the ultimate, if distant, aim of the Bauhaus is the unified work of art.”

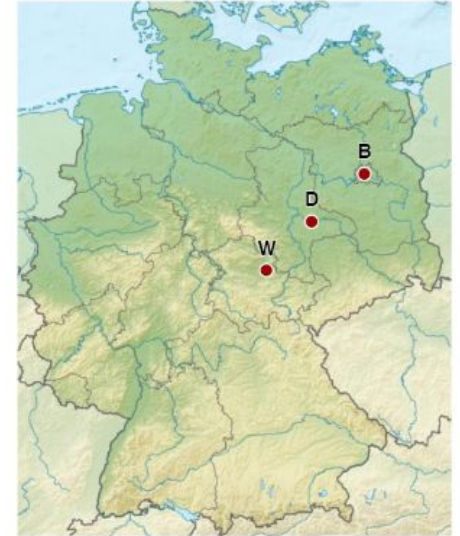
The movement was based in three different cities:

Weimar
1919 - 1925

Dessau
1925 - 1932

Berlin
1932 - 1933

Closed then by the pressures of Nazis.



The Origins of Bauhaus Architecture

He aspired to the German concept of Gesamtkunstwerk, or the “total work of art” that synthesizes multiple art forms into one.

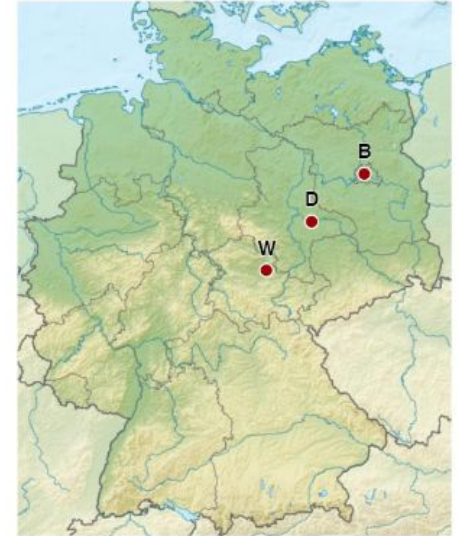
The movement was based in three different cities:

Weimar
1919 - 1925

Dessau
1925 - 1932

Berlin
1932 - 1933

Closed then by the pressures of Nazis.



The Origins of Bauhaus Architecture

-The school moved from Weimar to Dessau and finally to Berlin before it was shut down by the Nazis in 1933 under its final director, the celebrated architect Mies van der Rohe.

-The Nazis branded the Bauhaus under the umbrella of “degenerative art,”(a disease) calling its progressive ideas and internationalism “un-German.”

-But Bauhaus wasn't defeated by the Nazis. Instead, Gropius and other prominent members of the movement left Germany, spreading the ideas of the Bauhaus

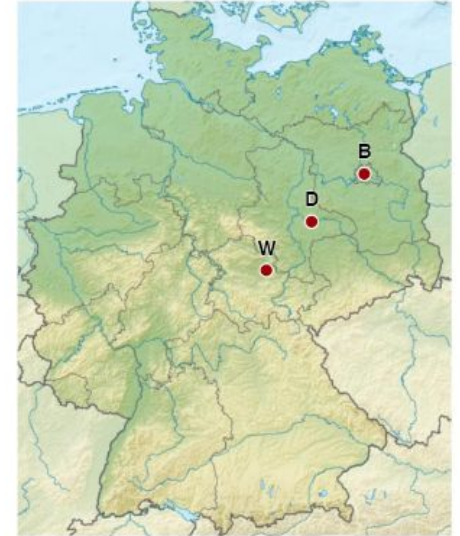
The movement was based in three different cities:

Weimar
1919 - 1925

Dessau
1925 - 1932

Berlin
1932 - 1933

Closed then by the pressures of Nazis.



A Brief History of the Bauhaus Movement

The Bauhaus school itself only had a lifespan of 14 years, but its legacy in design is everlasting. From modern architecture to graphic design, the far-reaching influence of the Bauhaus movement has a rich and intricate history, far too much to go into complete detail, but here's a brief timeline below.

The school existed in three German cities under three different architect-directors (Walter Gropius from 1919 to 1927, Hannes Meyer from 1928 to 1930, Ludwig Mies van der Rohe from 1930 to 1933).



1. Weimar from 1919 to 1925



2. Dessau from 1925 to 1932



3. Berlin from 1932 to 1933

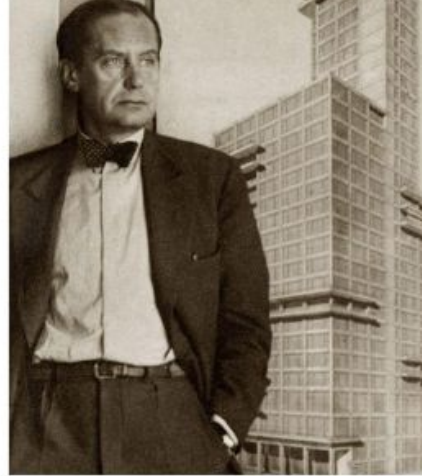
A Timeline of Key Events

1919- Staatliche's Bauhaus school of design founded by Walter Gropius in Weimar, Germany. The School was developed under Gropius' leadership.

Walter Adolph Georg Gropius

(18 May 1883 – 5 July 1969)

- Architect and educator
- Founder of the Bauhaus school in 1919.
- Director till 1928.
- Considered one of the greatest pioneer of **modernist Architecture** as well as in the International Style.



“We want to reate the purely organic buildings, boldly emanating its inner laws, free of untruths or ornamentation.”

Walter Gropius

Left: Bauhaus University, in Weimar, Germany, still teaches students the tenets of this international style that has proved one of the most influential design aesthetics in history.
Right: The study of Walter Gropius, the founder of Bauhaus, has been restored to its original state at Bauhaus University, Weimar.

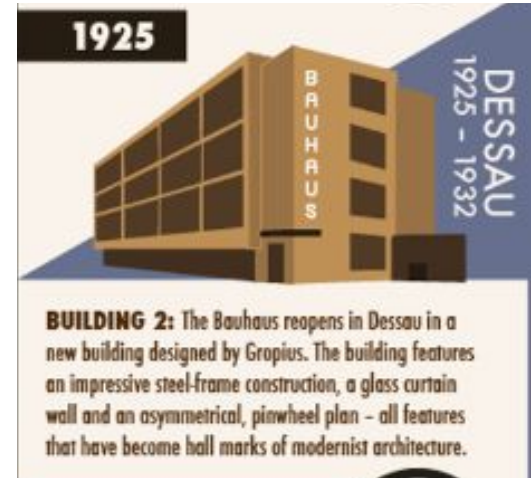


A Timeline of Key Events

1925- The Art school moves to Dessau, Germany. Gropius designed the building for the new Bauhaus Dessau himself and oversaw the move of the art school.

Dessau

In nearby Dessau, a tree-lined town of 70,000 that's home to two UNESCO World Heritage sites, the campus Gropius designed for the second incarnation of the school is still used as a design academy—and visitors can spend the night in one of the dorm rooms where Bauhaus students once dreamed up world-changing designs.



After leaving Weimar, Walter Gropius built a second Bauhaus campus in Dessau, Germany. The renovated, glass-fronted building is now a UNESCO World Heritage site and a working design center.

A Timeline of Key Events

1928- Swiss architect Hannes Meyer becomes the director of the school as Gropius leaves the Bauhaus.

1928 - 1930

Hans Emil “Hannes” Meyer

(18 November 1889 – 19 July 1954)

- Swiss Architect and urbanist.
- second director of the Bauhaus (in Dessau) from 1928 till 1930.



**“Building is just organisation:
social, technical, economic and
physical organisation.”**

Hannes Meyer

A Timeline of Key Events

1930- Ludwig Mies van der Rohe becomes the director of the school.

1932- The school moves to Berlin.

1933- Bauhaus school closes due to Nazi pressure.

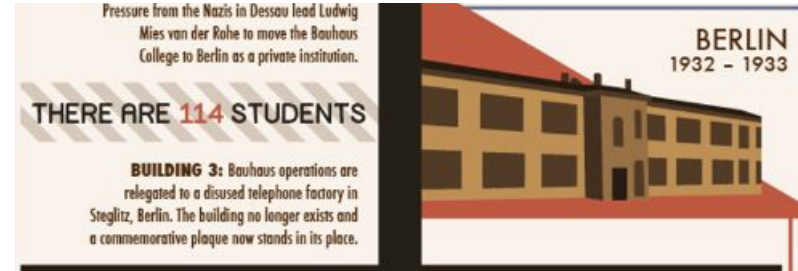
However, the ideas continue to be spread by staff and artists.

1930 - 1933

Ludwig Mies Van der Rohe

(27 March 1886 – 17 August 1969)

- German-American Architect.
- Pioneer and master of the modern Architecture.
- After Nazism's rise to power, leading to the closing of the Bauhaus, Mies went to the USA. Starting teaching at the Architectural school in Illinois Inst of Technology, in Chicago.



“Architecture epitomises the human being’s spatual cofrontation with his environment; it expresses how he asserts himself in it and how he manages to master it.”

Ludwig Mies van der Rohe

Bauhaus Ideology

The school had three aims at its inception and throughout its life:

- To encourage the individual artisans and craftsmen to work cooperatively and combine all of their skills.
- To elevate the status of crafts, chairs, lamps, teapots, etc., to the same level enjoyed by fine arts, painting, sculpting, etc..
- To maintain contact with the leaders of industry and craft in an attempt to eventually gain independence from government support by selling designs to industry.

Etymology

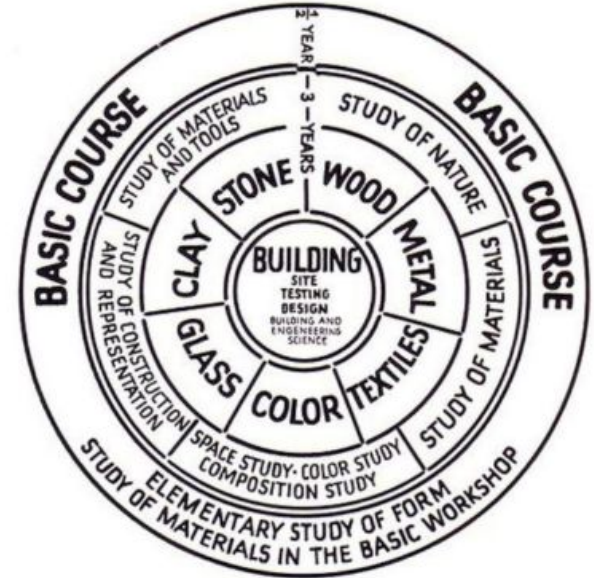
Bauen
"to build"
+
Haus
"house"

- Creating a total work of Arts
Gesamtkunstwerk
- The Bauhaus **influenced** deeply the following century in all fields of Art, Architecture, Graphic - Interior - Industrial Design, and Typography.



It influenced modern course instruction. The Bauhaus school had a unique syllabus design. Students started their first year in introductory classes called the *vorkurs* (or “preliminary course”), which covered subjects like color theory and design principles.

After the preliminary course, students would move on to more advanced technical courses like glassmaking or furniture design. This class structure has been adopted by many schools of architecture and design around the world.



THE CURRICULUM

The course of instruction at the Bauhaus is divided into:

I. Instruction in crafts (Werklehre):

STONE	WOOD	METAL	CLAY	GLASS	COLOR	TEXTILES
Sculpture workshop	Carpentry workshop	Metal workshop	Pottery workshop	Stained glass workshop	Wall-painting workshop	Weaving workshop

- A. Instruction in materials and tools
- B. Elements of book-keeping, estimating, contracting

II. Instruction in form problems (Formlehre):

1. Observation	2. Representation	3. Composition
A. Study of nature	A. Descriptive geometry	A. Theory of space
B. Analysis of materials	B. Technique of construction	B. Theory of color
	C. Drawing of plans and building of models for all kinds of constructions	C. Theory of design

Bauhaus Color According to Johannes Itten

Johannes Itten taught at the Bauhaus from 1919 until 1922, and he taught one of the fundamental preliminary courses that – among other things – grappled with color theory.

Itten gave us a color sphere comprised of twelve colors (three primary, three secondary, and six tertiary) that shows the relationship among colors, as well as gradations of saturation. The influence of psychoanalysis is apparent in Itten's color theory, as he was one of the first to associate different colors with specific emotions and study the impact of color on our moods. He also studied how individuals perceive color.



Johannes Itten, The Color Star



Bauhaus Philosophy and Design Principles

Where art, industry, technology, and aesthetics collide, the Bauhaus movement came from a desire to marry functionality and aesthetics.

What Are the Characteristics of Bauhaus Architecture?

1. Functional Shapes.

Bauhaus design features little to no embellishment or ornamentation, instead drawing attention to the streamlined design.

For example, many Bauhaus buildings have flat roofs to create a simple, geometric look. Tubular chairs—simple chairs held up by an angular length of steel tubing—are another quintessential example of Bauhaus interior design's beautiful functionality: **functional and straightforward**, with geometric shapes and few extraneous details.

A famous example that depicts functionality well is Breuer's cantilever chair, which was lightweight and efficient for mass production. The chair's design supports its function to be economical while remaining aesthetically pleasing in its simple design.



Breuer's cantilever chair

2. Simple Color Schemes.

Bauhaus design aims for cohesion and simplicity, so architectural color schemes are often limited to basic industrial colors like white, gray, and beige. In interior design, primary colors are often used—tones of red, yellow, or blue—sometimes all together but more often in focused, deliberate ways (such as a single red wall, or a yellow chair).

3. Industrial Materials.

Since the Bauhaus movement focuses on simplicity and industrialism, it most often tries to incorporate the fewest different materials possible, all of which are considered industrial, modern materials. These materials include glass (especially in ribbon windows or glass curtain walls), concrete (especially in building design, and steel (especially in appliances and objects like lamps and chairs).

4. Balanced Asymmetry.

Bauhaus architecture and design aimed for visual balance through asymmetry. (Symmetry was considered too industrial without any artistic heart.) As a result, Bauhaus designers worked to unite and balance buildings and rooms by incorporating the same elements throughout (for instance, the same materials and shapes, or repeating colors) without making both sides the same. A landmark example of this is the Bauhaus building in Dessau, which includes several different shapes and angles while remaining cohesive with white paint and extensive window designs.



2. Simple Color Schemes.

Bauhaus design aims for cohesion and simplicity, so architectural color schemes are often limited to basic industrial colors like white, gray, and beige. In interior design, primary colors are often used—tones of red, yellow, or blue—sometimes all together but more often in focused, deliberate ways (such as a single red wall, or a yellow chair).

3. Industrial Materials.

Since the Bauhaus movement focuses on simplicity and industrialism, it most often tries to incorporate the fewest different materials possible, all of which are considered industrial, modern materials. These materials include glass (especially in ribbon windows or glass curtain walls), concrete (especially in building design, and steel (especially in appliances and objects like lamps and chairs).

4. Balanced Asymmetry.

Bauhaus architecture and design aimed for visual balance through asymmetry. (Symmetry was considered too industrial without any artistic heart.) As a result, Bauhaus designers worked to unite and balance buildings and rooms by incorporating the same elements throughout (for instance, the same materials and shapes, or repeating colors) without making both sides the same. A landmark example of this is the Bauhaus building in Dessau, which includes several different shapes and angles while remaining cohesive with white paint and extensive window designs.



2. Simple Color Schemes.

Bauhaus design aims for cohesion and simplicity, so architectural color schemes are often limited to basic industrial colors like white, gray, and beige. In interior design, primary colors are often used—tones of red, yellow, or blue—sometimes all together but more often in focused, deliberate ways (such as a single red wall, or a yellow chair).

3. Industrial Materials.

Since the Bauhaus movement focuses on simplicity and industrialism, it most often tries to incorporate the fewest different materials possible, all of which are considered industrial, modern materials. These materials include glass (especially in ribbon windows or glass curtain walls), concrete (especially in building design, and steel (especially in appliances and objects like lamps and chairs).

4. Balanced Asymmetry.

Bauhaus architecture and design aimed for visual balance through asymmetry. (Symmetry was considered too industrial without any artistic heart.) As a result, Bauhaus designers worked to unite and balance buildings and rooms by incorporating the same elements throughout (for instance, the same materials and shapes, or repeating colors) without making both sides the same. A landmark example of this is the Bauhaus building in Dessau, which includes several different shapes and angles while remaining cohesive with white paint and extensive window designs.



5. Holistic Design. تصميم شامل

Among the essential tenets of Bauhaus design is integrating the school's techniques into every element of life, including city design, street corners, building architecture, furniture design, appliances, eating utensils, and typography. This holistic, integrated approach requires the designer to keep the school's tenets at the forefront of every choice they make when designing a room or building look in the Bauhaus style.

6. Artist and Artisan Unified

Gropius's grand idea was to disseminate the barrier between "craftsmen" and artists. His intention was to group creativity together under one undivided umbrella, creating what he called a "guild of craftsmen."

The poster by **Joost Schmidt** for the 1923 Bauhaus exhibition in Weimar is an example of experimentation with layout and the innovative use of geometric shapes.



5. Holistic Design.

Among the essential tenets of Bauhaus design is integrating the school's techniques into every element of life, including city design, street corners, building architecture, furniture design, appliances, eating utensils, and typography. This holistic, integrated approach requires the designer to keep the school's tenets at the forefront of every choice they make when designing a room or building look in the Bauhaus style.

6. Artist and Artisan Unified

Gropius's grand idea was to disseminate the barrier between "craftsmen" and artists. كانت فكرة غروبيوس هي نشر الحاجز بين "الحرفيين" والفنانين

His intention was to group creativity together under one undivided umbrella, creating what he called a "guild of craftsmen." نقابة الحرفيين.

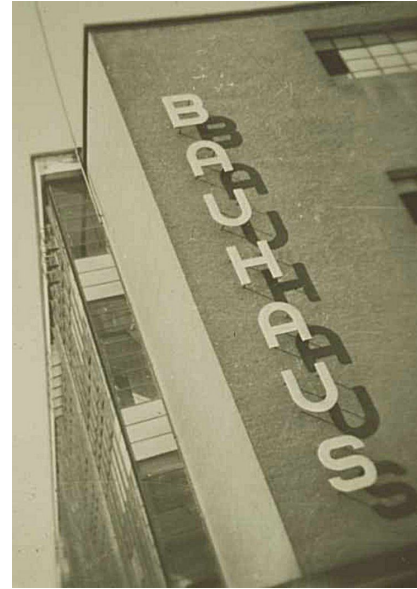
The poster by **Joost Schmidt** for the 1923 Bauhaus exhibition in Weimar is an example of experimentation with layout and the innovative use of geometric shapes.



Bauhaus Building, by Walter Gropius (1925–26)

The building was designed by the founder of the Bauhaus, Walter Gropius, and commissioned by the city of Dessau. **An appreciation of the evolving relationship between art and industry was also key to the Bauhaus philosophy**, which informed the use of modern materials and industrial processes across its various creative subjects.

When the school was forced to relocate to Dessau, after succumbing to pressure from Weimar's conservative political regime, Gropius seized the opportunity to design a suitably bold and progressive building.

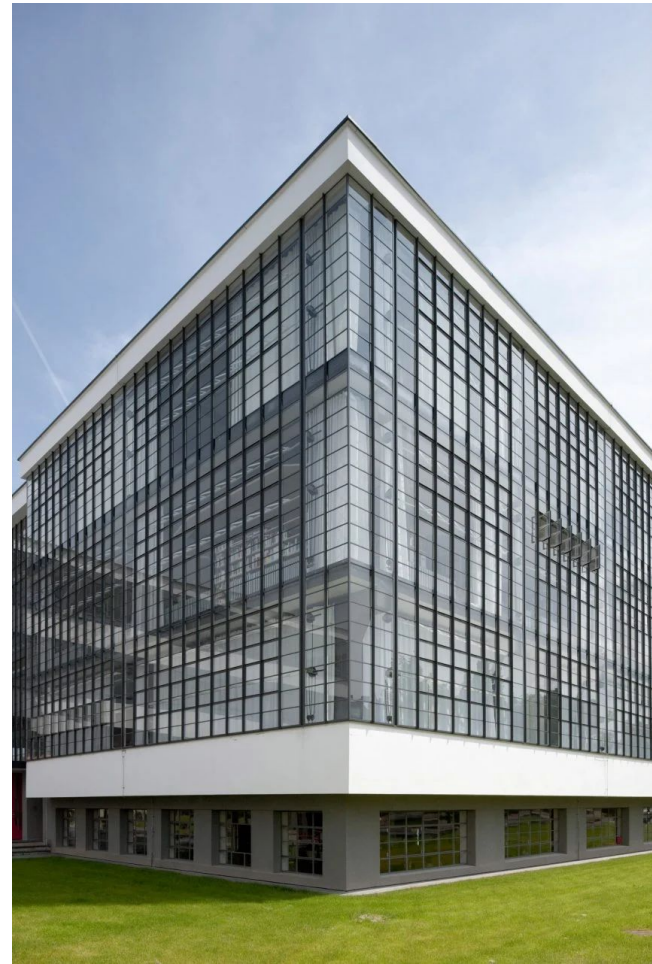


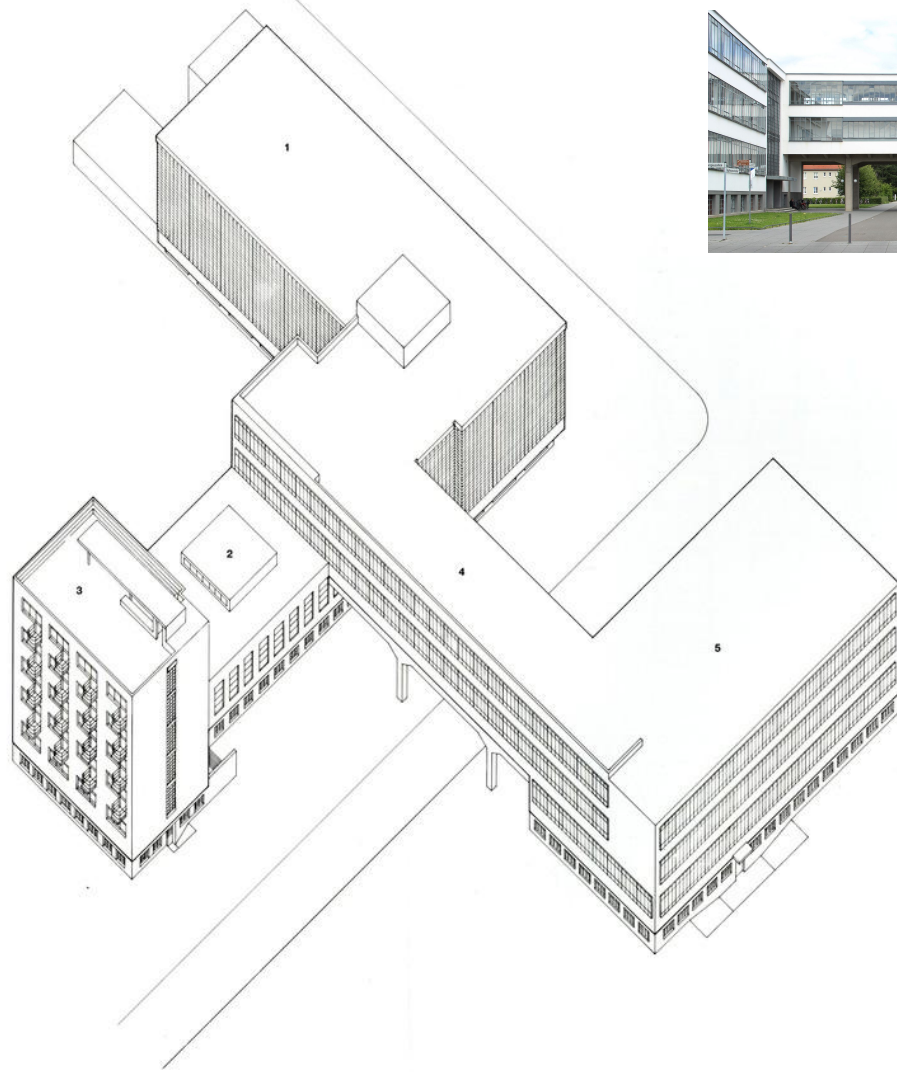
Architecture behind glass

a glass facade on the load-bearing framework allows a view of the interior workings. In the workshop wing in Dessau this provides clear view of the constructive elements. The building is comprised of three wings all connected by bridges. The school and workshop spaces are associated through a large two-story bridge, which creates the roof of the administration located on the underside of the bridge.



The Bauhaus Dessau's most striking features are its glass curtain walls, which wrap around corners and provide views of the building's interiors, and its supporting structure.





The main elements of the complex are the glass-fronted, three-storey workshop wing, the likewise three-storey building for the vocational school and the five-storey studio building. The workshop wing and the vocational school are connected by a two-storey bridge which was used for administration purposes. Gropius's private office was also located here until 1928. The workshop wing and the studio building are connected by a one-storey building in which the so-called festive area comprising auditorium, stage and canteen is located. The studio building housed students and junior masters in 28 studio flats, each measuring 20 m².



A single-storey building housing the auditorium, stage and canteens links the workshop wing and accommodation block.



Inside the Bauhaus building in Dessau.



<https://www.youtube.com/watch?v=iC1NZZrsFzU>

The Fagus Factory

is one of the earliest built works of modern architecture, and the first project of Walter Gropius.

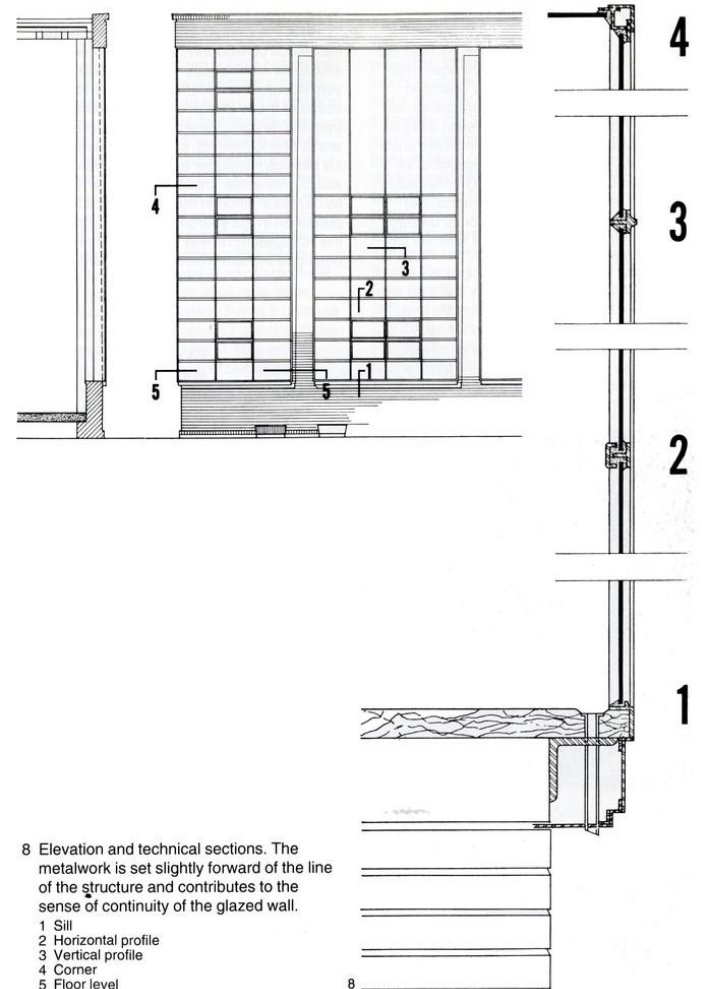
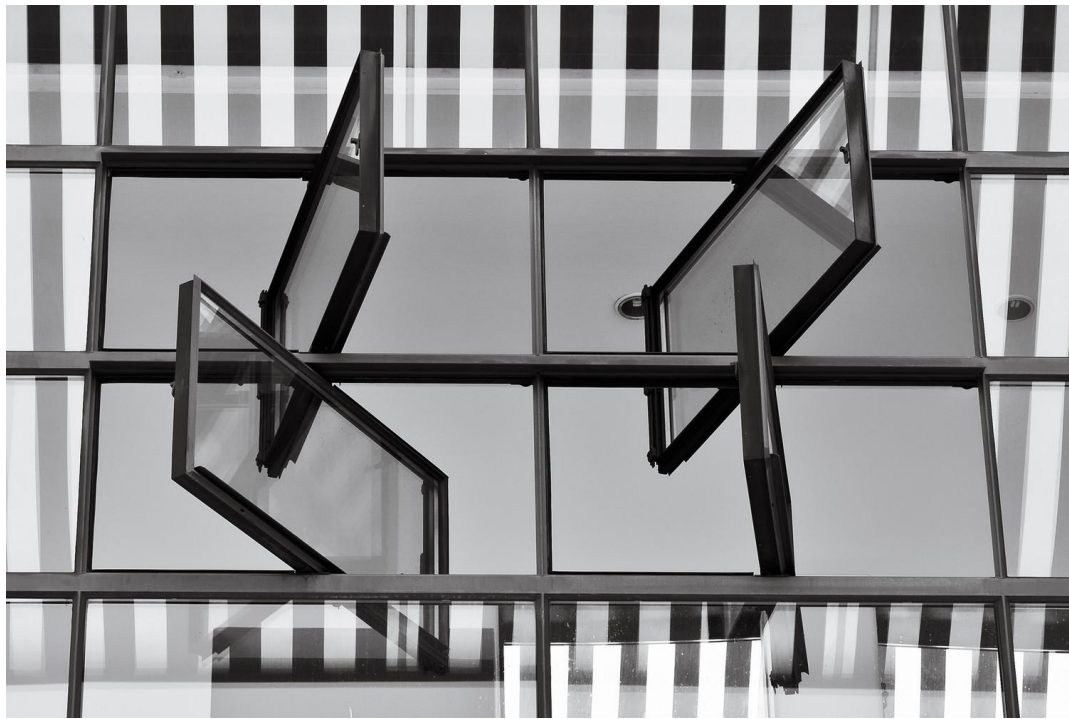
The Fagus Factory is a complex which contain various functions such as manufacturing, storage, and offices, and Gropius felt it was important to design an exterior design aesthetic that could be applied to various structures.



The Fagus Factory

The most architecturally-significant aspect of Gropius' contribution to the project is the office building. Unlike the other buildings, this flat-roof, three-story building features a façade that is comprised of more glass than brick. Instead of conventional load-bearing exterior walls, Gropius had made the bold and innovative decision to place reinforced concrete columns inside the building to free the façade. A series of brick piers suspend iron frames between that supports glass inserts.





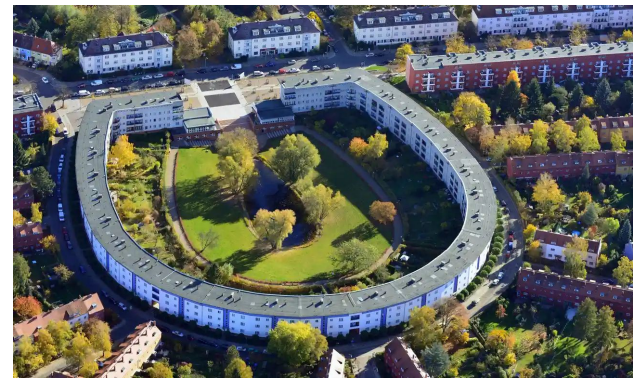
8 Elevation and technical sections. The metalwork is set slightly forward of the line of the structure and contributes to the sense of continuity of the glazed wall.

- 1 Sill
- 2 Horizontal profile
- 3 Vertical profile
- 4 Corner
- 5 Floor level

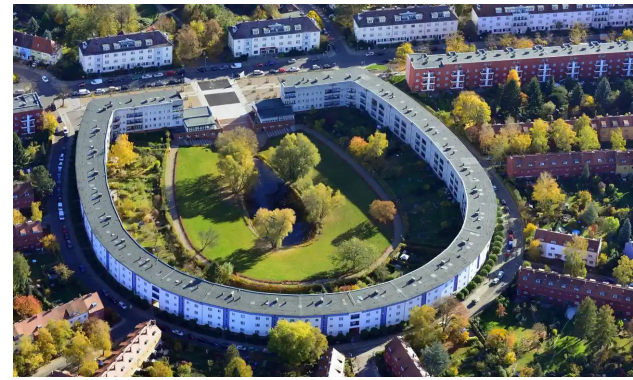
The most innovative feature of the building is the fully glazed exterior corners, which are free of structural elements. The exterior design of the office building effectively demonstrated Gropius' ambition to improve interior conditions while exposing contemporary construction techniques as an architectural image.

The residential estate in Britz, a district in the south of Berlin, which is better known as the "horseshoe estate" because of the shape of the central element of the complex, was built from 1925-33 (in seven construction stages) to plans by Bruno Taut.

The Horseshoe Housing Estate is one of Bruno Taut's pioneering large-scale social housing projects. Working together with Martin Wagner, Berlin's planning director at the time, he designed nearly 2000 apartments built between 1925 and 1930 on the site of the former Britz manor in the Neukölln district of Berlin.



After the end of the First World War, Berlin suffered from a housing crisis, as living in dark tenements was no longer acceptable. The solution was to build large housing estates at relatively low cost, and thus a new form of housing developed during the Weimar Republic in the form of social housing projects. The aim was to offer affordable dwellings with private bathrooms and gardens while also promoting the notion of community.



Though the buildings here follow classic modernist style with a pragmatic and functional formal language, they do not at all appear monotonous. Each street is given its own character through an alternating pattern of projecting and recessed building clusters as well as the use of strong colours in both interior and exterior areas, a cost-effective design feature typical of Taut.



<https://www.youtube.com/watch?v=GNDVGHk09r0>



Barcelona Pavilion / Mies van der Rohe

Minimalism has shaped architecture for over a century. **Embracing new materials and rejecting ornament**, the modernist movement grounded minimalist architecture through rational use and function.

Throughout the 20th century, architects returned to minimalism as they worked with glass, steel and reinforced concrete. Over time, minimalist and modernist designs became more closely tied to cost, construction and aesthetic.

Mies was commissioned to design the German Pavilion for the International Exposition in Barcelona, Spain.

The pavilion was intended to be the face of the German section that would host King Alfonso XIII of Spain and German officials at the inauguration of the exposition.



Barcelona Pavilion / Mies van der Rohe

Unlike other pavilions at the exposition, Mies understood his pavilion simply as a building and nothing more, it would not house art or sculpture rather the pavilion would be a place of tranquility and escape from the exposition, in effect transforming the pavilion into an inhabitable sculpture.

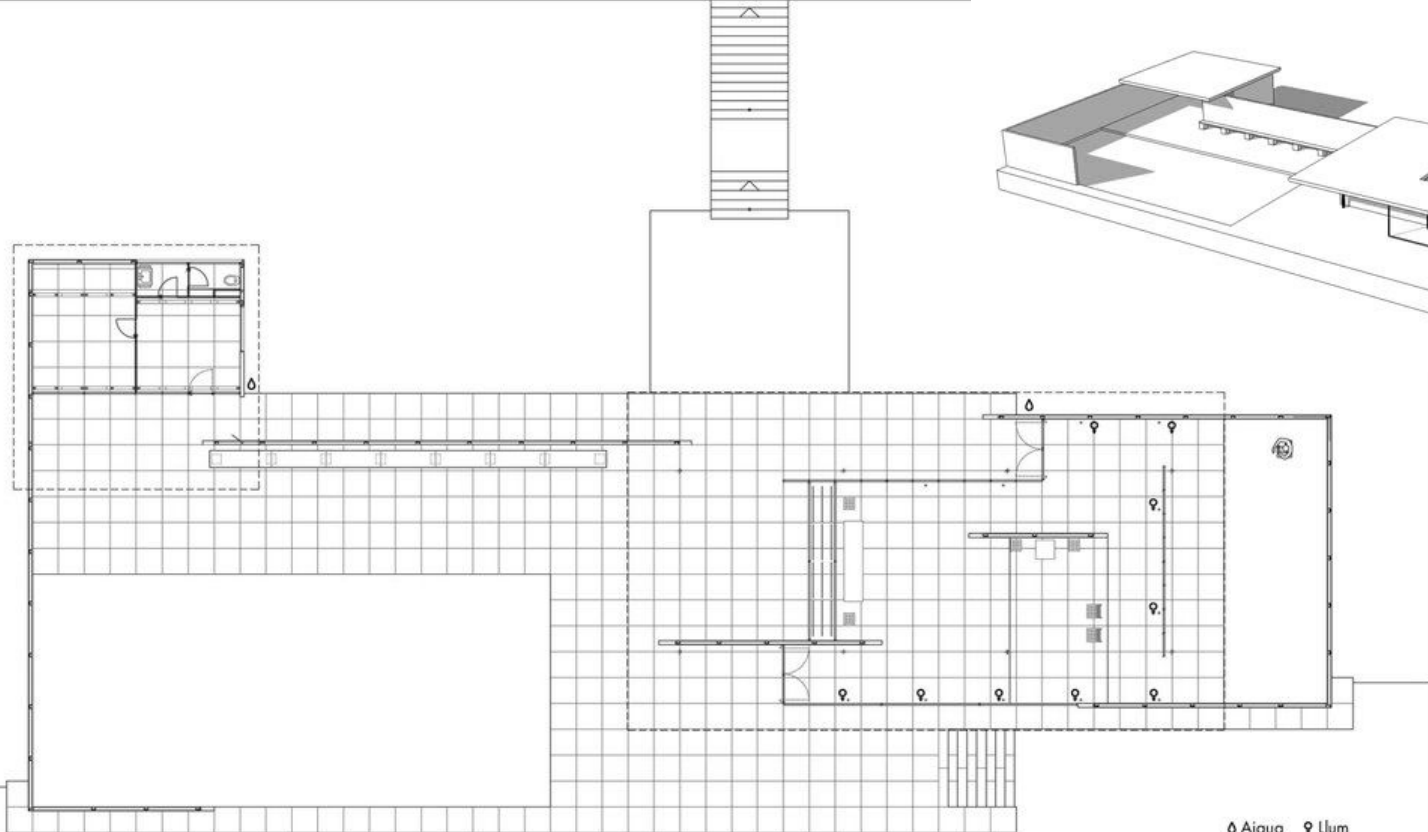


Barcelona Pavilion / Mies van der Rohe

one of the most important aspects of the pavilion is the roof. **The low profile of the roof appears in elevation as a floating plane above the interior volume.** The appearance of floating gives the volume a sense of weightlessness .

The roof structure is supported by eight slender cruciform columns that allow the roof to as effortlessly floating above the volume while freeing up the interior to allow for an open plan. With the low roof projecting out over the exterior and the openness of the pavilion, there is a blurred spatial demarcation where ht interior becomes and exterior and exterior becomes interior.





△ Agua ● Llum

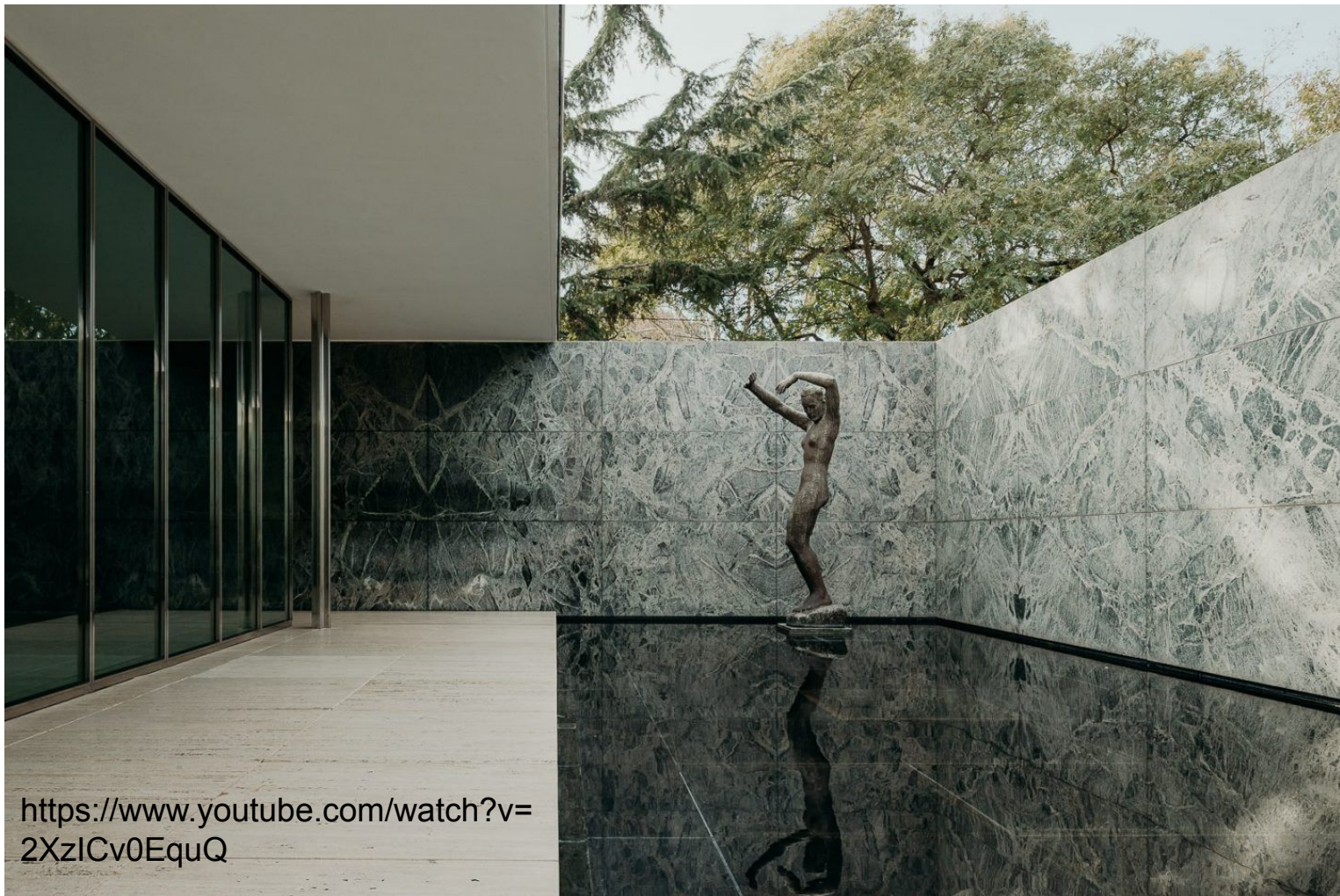
MIES VAN DER ROHE - BARCELONA 1929

ESCALES GRÁFICAS 0 1 2 3 5 10 m.

ORIGINALS 1/100

PLANTA BAIXA

4.1



<https://www.youtube.com/watch?v=2XzICv0EquQ>

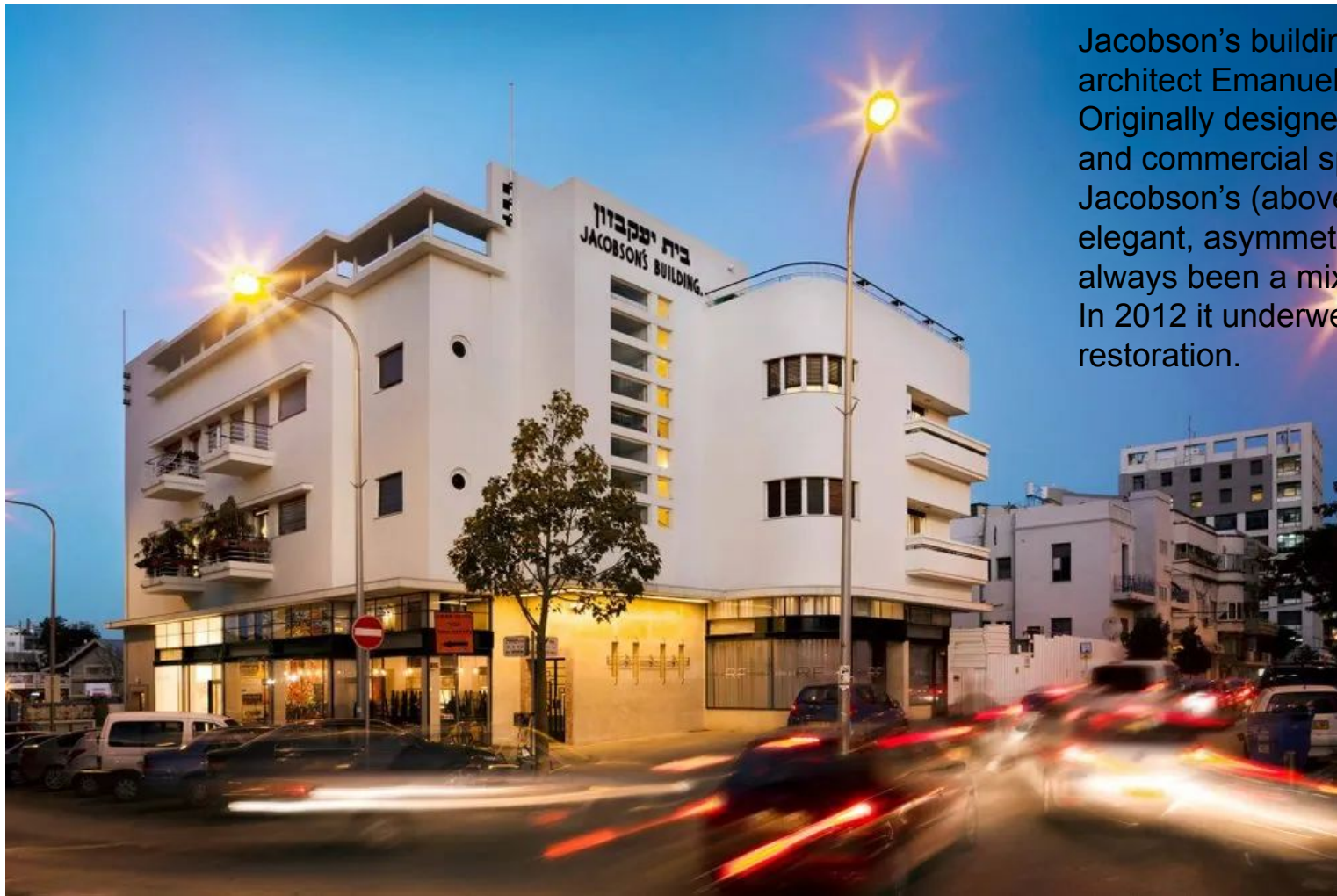
But how did the Bauhaus style come to Occupied Territories (Tel Aviv) from Germany?

When the Nazis rose to power in Germany in 1933, resulting in the closure of the Bauhaus design school that same year, tens of thousands of Jews fled Germany to settle in Palestine. With 60,000 new immigrants arriving within just a few short years, housing was urgently needed. Dozens of architects were commissioned to build a new city.

Among the most influential European architects selected were six German Jews who had studied at the Bauhaus school in Weimar and Dessau. They were key to the development of Tel Aviv's "White City," whose moniker لقب is attributable to its whitewashed façades.

the Bauhaus movement was selected in large part due to its functionality, clean lines, and lack of adornment. This minimalist approach was well-suited to the socialist-Zionist ideal of pre-state Israel, which perceived the construction of a new city as central to the creation of a new society.





Jacobson's building designed by architect Emanuel Halbrecht; Originally designed to house offices and commercial spaces, Jacobson's (above), with its elegant, asymmetrical façade, has always been a mixed-use building. In 2012 it underwent extensive restoration.



designed by architect Genia Averbuch — likely the world’s only “Bauhaus Piazza” — to its original design. Regarded as the traditional center of the White City, it is striking for its simple design: a round space, surrounded by nearly identical buildings.

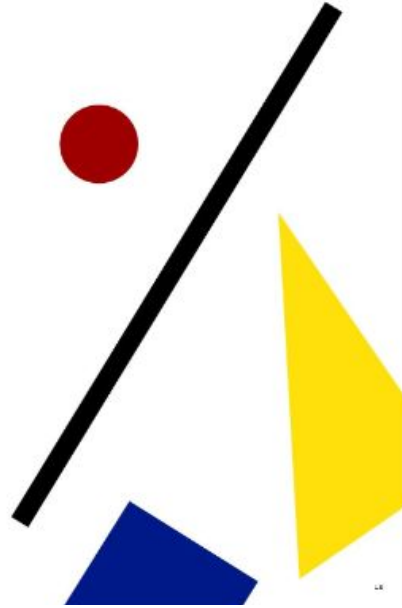
The simple, elegant architectural language of this circle makes it a paradigm of local modernist architecture.

Bauhaus Design

- Unifying Art, Craft and Technology
- Industrial and product as main components
- In 14 years of activity, Bauhaus produced lots of design for mass production but only 30 y later the industry understood this thinking, producing furnitures light and cheap in large quantities.
- Many of the as called "classic Design" have Bauhaus origins.

The Gropius Armchair

- designed by **Walter Gropius** in 1923



AEG fan

- designed by **Peter Behrens** in 1908



Nesting Tables

- designed by **Josef Albers** in 1926 -1927



Club Chair - Model B3 (The Wassily Chair)

- designed by **Marcel Breuer** in 1925-1926



Barcelona chair

- designed by **Ludwig Mies van de Rohe** in 1929 in partnership with **Lily Reich**



Tea infuser, model no. MT 49

- designed by **Marianne Brandt** in 1927



Bauhaus chess

- designed by **Josef Hartwig** in 1923



De Stijl

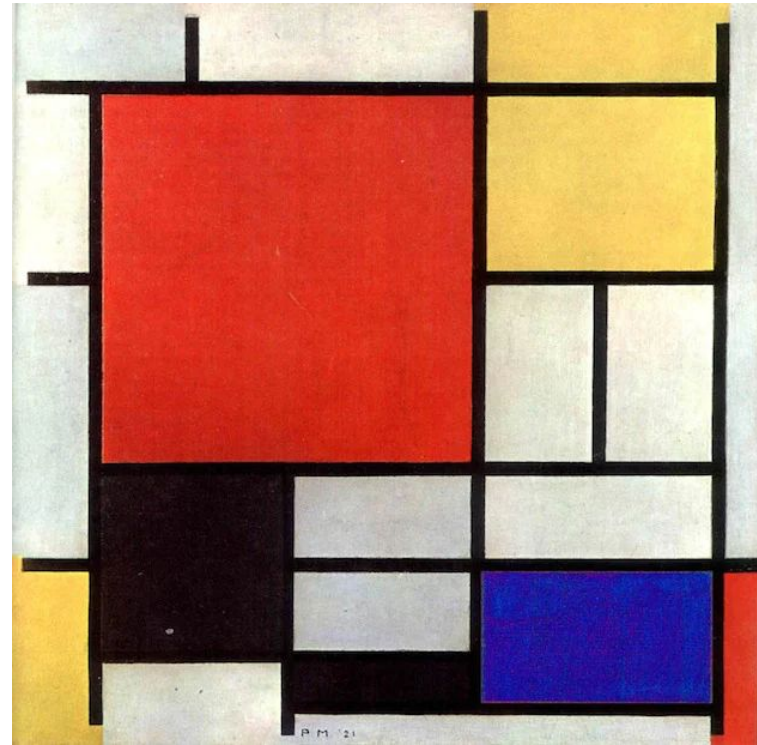
Founded in 1917, De Stijl (Dutch for “The Style”) originated in the Netherlands, and is considered to have peaked between 1917 and 1931.

Characteristics of the style include

-the reduction of design to essential forms and colors, with simple horizontal and vertical elements, and the use of black, white, and primary colors.

Headed by Dutch artists Piet Mondrian and Theo van Doesburg, De Stijl **-rejected pre-war decorative tendencies and pushed Cubism to new extremes**

-total abstraction consisting of only the most basic design components — vertical and horizontal lines, primary colors.



A 1921 painting by Piet Mondrian

Characteristics of De Stijl Art

De Stijl artwork stands out through its use of primary colors, horizontal and vertical lines, squares, and rectangles within the genre of modernism.

1. **Straight lines:** De Stijl art features clean and straight vertical and horizontal lines that intersect to form right angles.
2. **Primary colors:** De Stijl artists used primary colors—red, yellow, and blue—plus black and white. **These colors do not touch or blend, and straight lines typically divide the colors.**
3. **Thick strokes:** The straight lines in De Stijl artworks are typically black lines in thick strokes to accentuate the division between colors and boxes.
4. **Geometric forms:** **Rectangle and square boxes are standard fixtures of the De Stijl** movement. Simple geometric forms were motifs in many pieces, which echoes in De Stijl-influenced architecture. Buildings resembling boxes with various compartments exemplify this art movement.

Red and Blue Chair (1923)

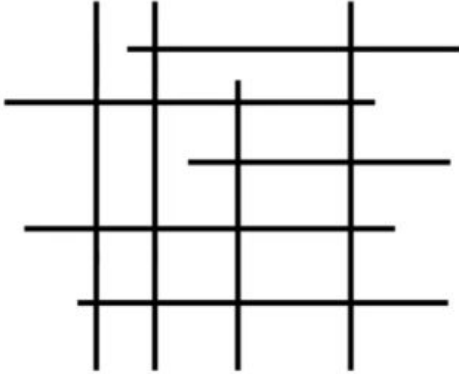
Artist: Gerrit Rietveld

Originally designed in 1918 but not fully realized until 1923, when it incorporated the characteristic De Stijl scheme of primary colors, *Red and Blue Chair* is one of the canonical works of the movement.

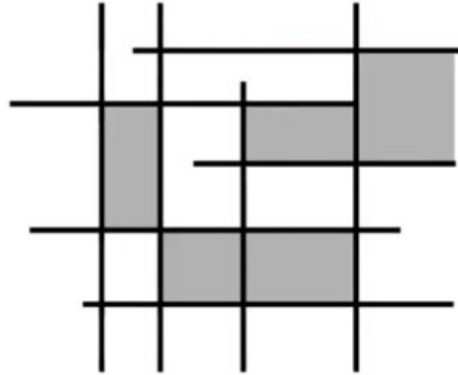
Rietveld envisioned a chair that played with and transformed the space around it, consisting of rectilinear volumes, planes, and lines that interact in unique ways, yet manage to avoid intersection. Every color, line, and plane is clearly defined, as if each comprised its own work that just happened to be used for a piece of furniture.



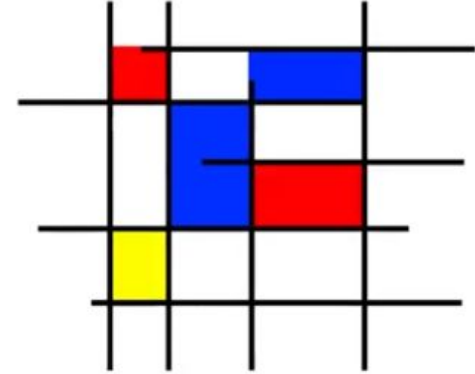
ABSTRACTION



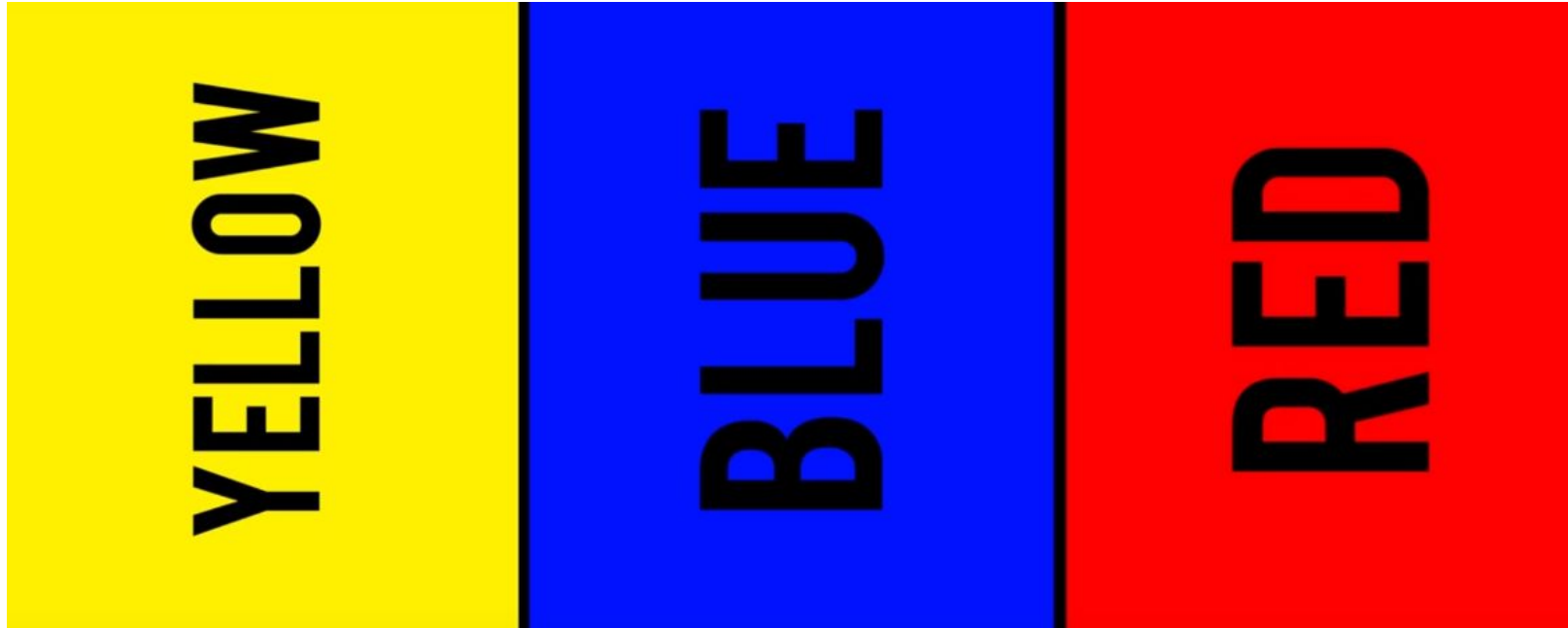
SIMPLIFIED RECTILINEAR GEOMETRY



PRIMARY COLORS

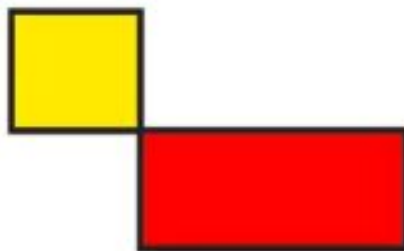
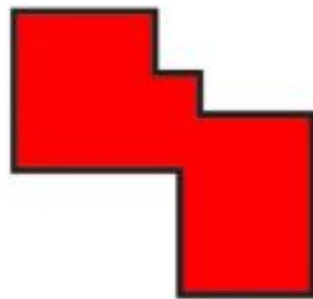
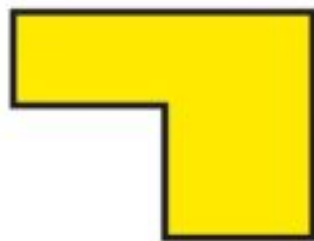


Essential Elements in their design

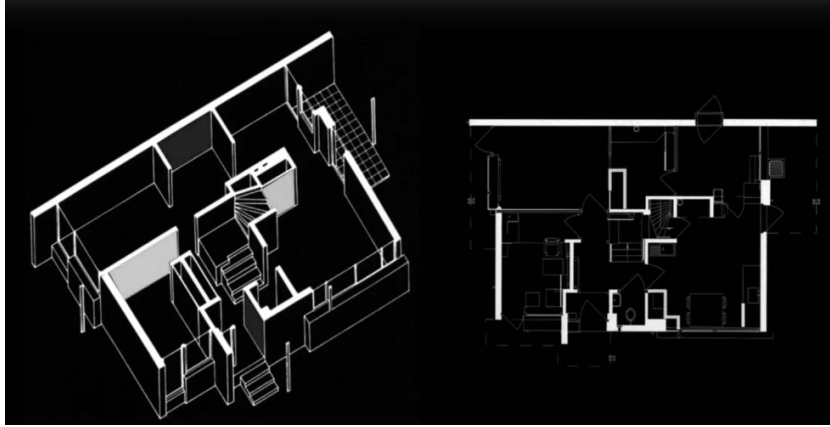


Color Scheme Used

RECTILINEAR GEOMETRICAL SHAPES

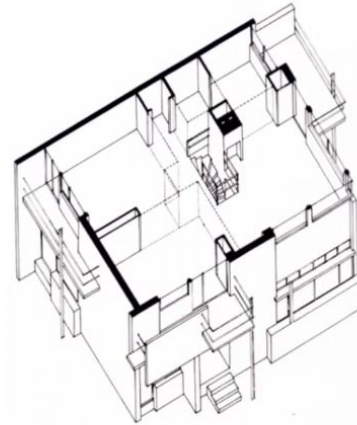
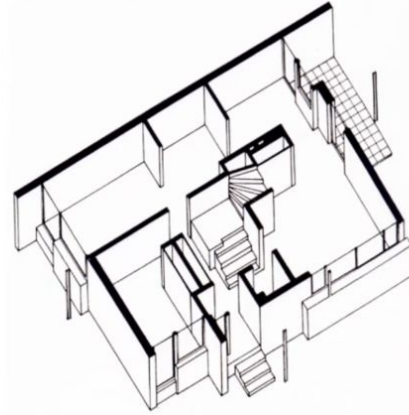


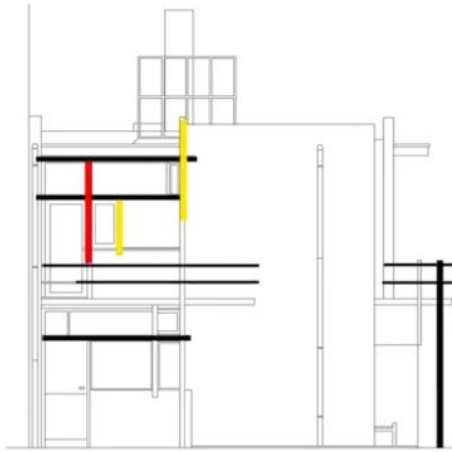
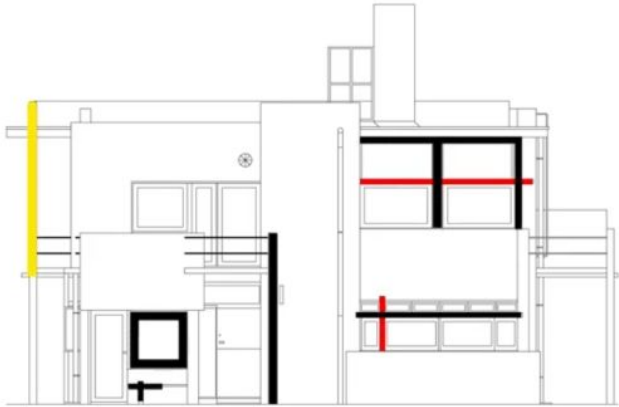
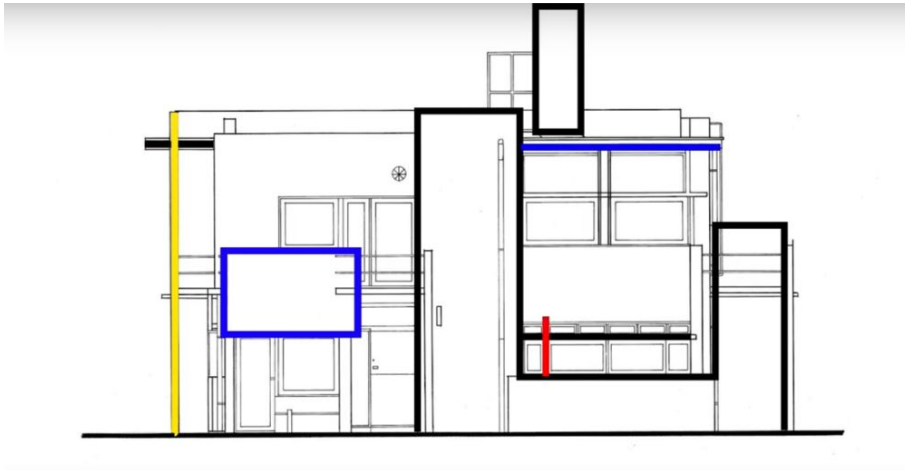
The Schroder House is the only building that was designed in complete accordance with the De Stijl style, which was marked by primary colors and pure ideas.



Utrecht, The Netherlands, Architects: Gerrit Rietveld. Year: 1925

The flexibility of space meant that there was no hierarchical arrangement of rooms in the floor plan. The collapsable walls upstairs positioned around a central staircase were designed to provide the children with an option of pushing the partitions in during the day for an open play space and closing them at night for private bedrooms.





What is avant garde?

French for “advanced guard,” originally used to denote the vanguard of an army and first applied to art in France in the early 19th century. **In reference to art, the term means any artist, movement, or artwork that breaks with precedent and is regarded as innovative and boundaries-pushing.**

Because of its radical nature and the fact that it challenges existing ideas, processes, and forms, avant-garde art has often been met with resistance and controversy.

Group of trends and directions of art that were created in the 20th century. They were discarding previous styles . creating their own world and looking for a new fresh way of exposure . In terms of art, avant-garde is usually tied to some sort of **aesthetic innovation**—one that is often **misunderstood or unaccepted in its own time**. It’s a concept that applies to those creatives who have pushed against mainstream ideals and, though it’s often used in relation to modernism, there are plenty of historic artists whose work can be seen as avant-garde during their time.

Avant Garde Perspective:

- Reject cultural output
- Create new directions in art
- Taking inspiration from science and technology

Constructivism Style

While the Bauhaus and De Stijl styles developed in 1920s Western Europe, Constructivism emerged in the Soviet Union. Constructivism combined technological innovation with a Russian Futurist influence, resulting in **stylistically abstract geometric masses**. The style fell out of favor in the early 1930s. Well-known Russian constructivist architects include El Lissitzky and Vladimir Tatlin, though both are most recognized by their proposals and unbuilt work.

Constructivism was an artistic and architectural avant garde movement that originated in Russia beginning in **1913 by Vladimir Tatlin**. This term described art and its function, which dismissed traditional art in favor of an art used as an **instrument for social purposes**, namely the construction of the socialist system.

Most Constructivists, such as Tatlin, thought painting to be dead unless it represented and acted as a kind of a blueprint for something to be physically built.



Poster Art Showcasing the Constructivism Style

Characteristics of Constructivism

- They style incorporated **straight lines, cylinders cubes and rectangles and merged elements of the modern age** such as tension cables and concrete frames .
- Modern Materials were also explored such as **steel frames** that supported large areas of glazing , exposed rather than concealed building joints .
- The style aimed to explore the opposition of different forms and surfaces especially between solid walls and windows .

One of the first buildings conceived entirely in abstract terms . Which was planned to construct in **St. Petersburg** after bolshevik revolution 1917.

It consisted of a leaning spiral iron framework supporting a glass cylinder , a glass cone and a glass cube each of which could be rotated at different speeds .

The monuments interior would have contained halls for lectures and other activities .

The monument was to be the world's tallest structure more than 400 meters tall. It would have dwarfed the Eiffel tower in Paris

Tatlin's Tower, or the project for the Monument to the Third International, was a design for a grand monumental building by the Russian artist and architect Vladimir Tatlin, that was never built.



A Soviet Utopia: Constructivism in Yekaterinburg



Developed early on in the Soviet era, and fully subordinate to Soviet ideology, the Constructivist movement was intended to form the foundations of a brave new world. The introduction of the Five-Year Plans coincided with the time when Constructivism was adopted as the official architectural style in the USSR. These circumstances allowed many architects to implement daring projects across the entire Soviet Union.

Few Constructivist projects made it through the World Wars, but if you're looking for those that did, you'd be wise to travel to Yekaterinburg, Russia. With over a dozen complexes, the city probably has the world's biggest collection of Constructivist buildings



The Iset Hotel

The complex was built between 1929-36, and was originally used as a residential facility for the officers of the Soviet Union's interior ministry (NKVD)



White Tower

The water tower was built between 1928-31. Now abandoned and decayed, it was the first concrete structure built in the Urals region, and was designed by Moisey Reysher – who was just 24 at the time

Expressionism

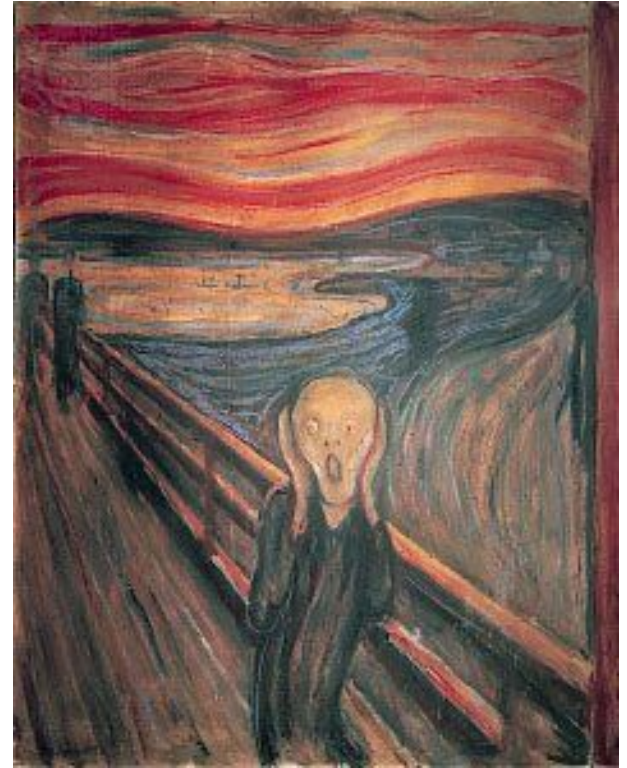
Expressionism emerged in the early 20th century in poetry and painting, **where it attempted to distort reality to express subjective, emotional experience.** لتشويه الواقع للتعبير عن تجربة عاطفية ذاتية.

It quickly spread through all of the arts and architecture, pioneered by a group of architects from Germany, Austria and Denmark.

Expressionist architects used materials such as brick, concrete and glass to create novel sculptural forms and massing, sometimes distorted and fragmented to express an emotional perspective.

Very often, expressionism involved

-a rejection of historical styles, symmetrical forms, and traditional designs, and instead embraced abstraction (based on structures not found or seen in the real world). This tended to result in unusual building forms using innovative construction techniques that stood out from their surroundings.



Edvard Munch: The Scream

While the individualistic and informal approach to **expressionist architecture** makes it more difficult to define as a precise style, there are some recurring characteristics, including:

- Distorted forms.
- Emphasis of symbolic or stylistic expression over realism.
- An attempt to achieve new and original designs.
- Natural themes such as mountains, lightning, rock formations, caves, and so on.
- The romantic appreciation of architecture as an art form.



The Einstein Tower / Erich Mendelsohn

The Einstein Tower, designed by the German architect Erich Mendelsohn, is one of the best-known examples of German expressionist architecture.

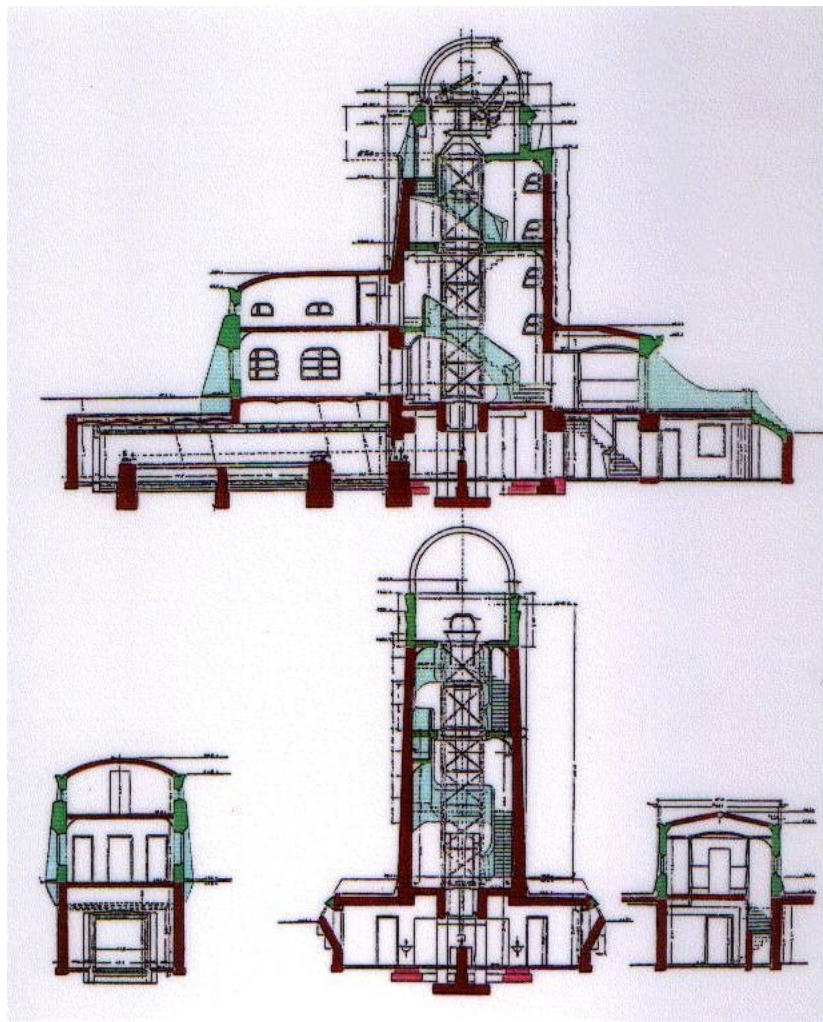
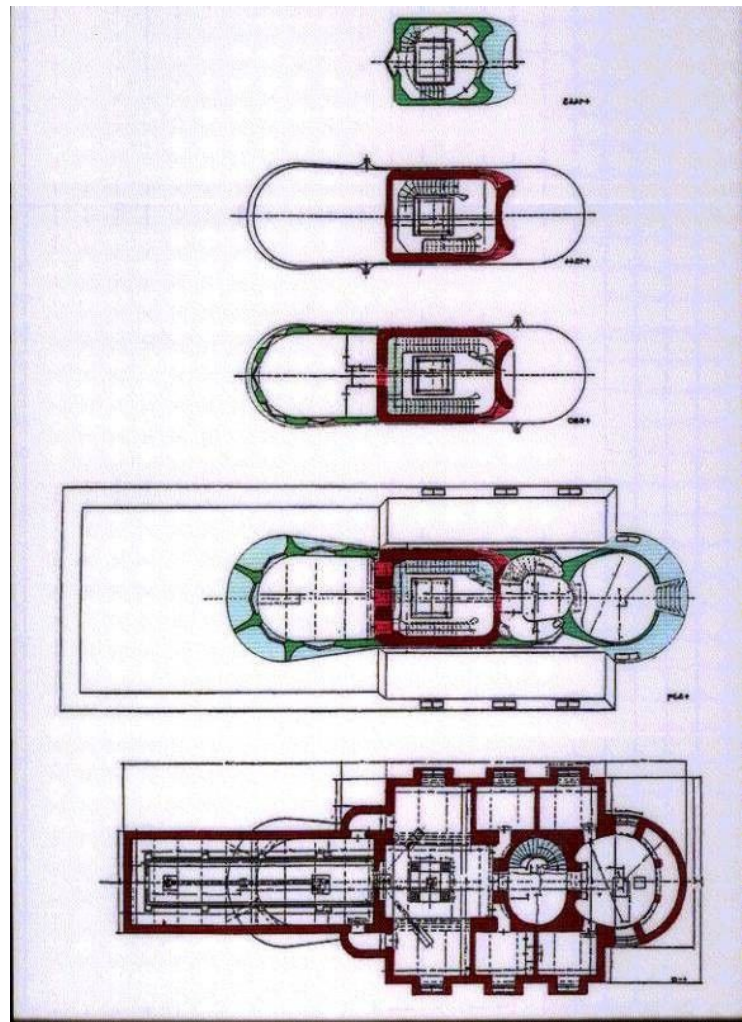
Designed as an amorphic (**Having no defined shape, lacking form**) structure of reinforced concrete. The Einstein Tower (German: Einsteinturm) is an astrophysical observatory in the Albert Einstein Science Park in Potsdam, Germany designed by architect Erich Mendelsohn. It was built to house a solar telescope designed by the astronomer Erwin Finlay-Freundlich to support experiments and observations.



The Einstein Tower / Erich Mendelsohn

- Architects: Erich Mendelsohn
- Year: 1921

<https://www.youtube.com/watch?v=urFx3ZdOFO8>





The research center held the most important solar observatory facilities until World War II, when it was severely damaged. In 1999 the building was reopened, in honor of its 75th anniversary, following two years of renovation; today it houses a working solar observatory as well as a visitors' center.



CIAM and the Functional City, 1933-43

-*Congrès International d'Architecture Moderne* (CIAM) was a series of eleven architecture and urban planning congresses.

-Initiated by a group of European modernist architects, these conferences were held between 1928 and 1959.

-The ideas developed and exchanged within the context of CIAM influenced the development of architecture and urban planning worldwide.

-Its members were consists of some of the best known architects of the twentieth century such as Le Corbusier, Walter Gropius, and Richard Neutra, and also many of others who considered it for principles on how to formalize the urban environment in a rapidly changing world.

CIAM was one of many 20th century manifestos meant to **advance the cause of architecture as a social art**

CIAM CONGRÈS INTERNATIONAL D'ARCHITECTURE MODERNE – 1928-59



Image Source: http://members.abdn.ac.uk/~facult/dcv/001/sem/arcosm/00001_Forum_CIAM-congres_1928_gro-foto.jpg
(2014)

History of Architecture - II (AP-313) – Modernism

Its opening declaration called for architecture **to be rationalised and standardised**, and to be seen in context of economic and political realities.

In the years that followed, CIAM **produced many radical and ambitious documents** which sought to place architecture at the centre of economic and political discussions about building a new and better world.

And with the backing of CIAM, the Modernists began their mission to make architecture not simply about the building of buildings, but rather about the construction of a new way of living,

CIAM was one of the many 20th century manifestos meant to advance the cause of architecture as a social art.

The organization was hugely influential because it saw **architecture and urban planning as an economic and political tool that could be used to improve the world through the design of buildings and through urban planning** rather than just engaged in formalizing the architectural principles of the modern movement.

The Functional City CIAM 4 (1933).

After previous two congresses on
The minimum Dwelling (Frankfurt/ Main 1929)

And Rational Land Development (Brussels 1930)

The Functional City CIAM 4 (1933).

The Functional City broaden CIAM's scope from architecture into urban planning.

It represented an ambitious project to apply modern methods of architectural analysis and planning to the city as a whole.

“Atlas of the Functional City” presents results of research into the **comparative city analyses**.

The delegates engaged in a common city analysis in search for responses to Europe wide tendencies in social and economic development and to paradigmatic technological change.

Mapping a broad range of European cities and metropolitan regions, the congress aimed to raise awareness regarding common challenges that the regions share.

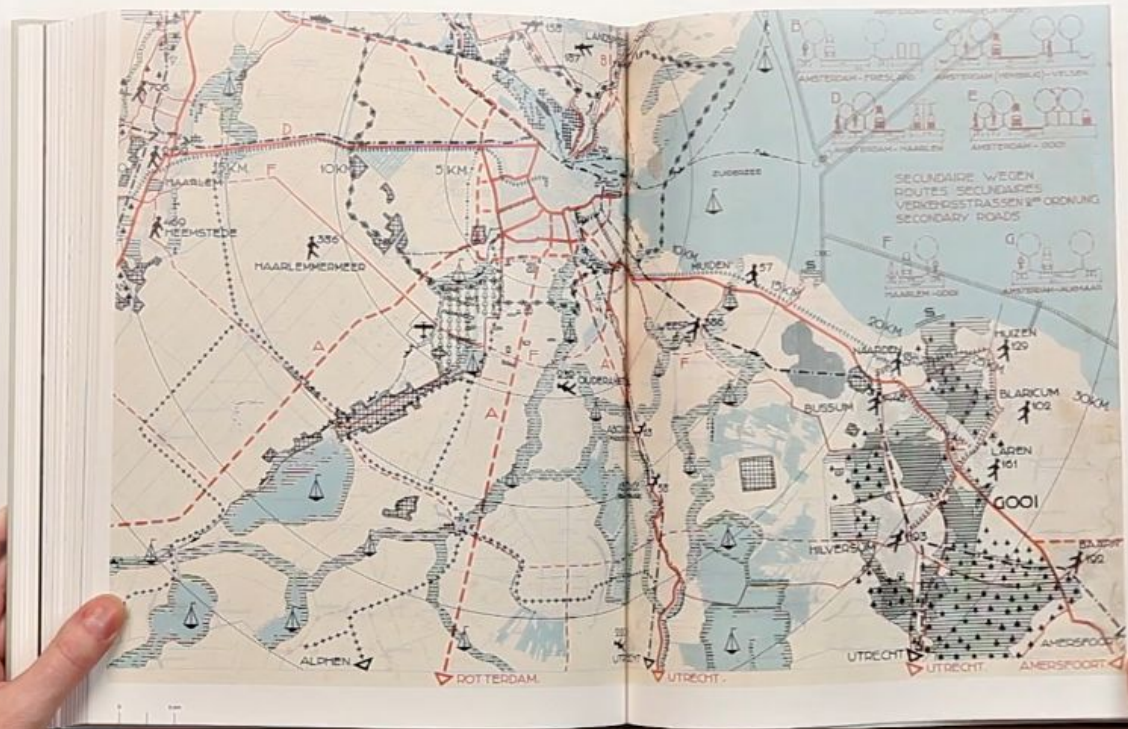
As Atlas of the Functional City demonstrates, CIAM 4 produced a compilation of beautiful maps of thirty three European and colonial cities in 18 countries.

Index of Place

Places that in city analyses compare.

- A
- Aix-en-Prove (1953) 425
- Adar Maroni plan (1932)
- Albacasserat small neig (1820) 39
- Algiers, City 428, 430
- Algiers, Exc d'Urbanite d'Archeite Algiers, Plan (1931-1932)
- Amsterdam meadow L 341, 441, 442
- Amsterdam for South 1
- Amsterdam Extension 34, 39, 47, 282, 508
- Amsterdam 443
- Amsterdam 16, 47, 83, 104-106, 312, 386
- Amsterdam Museum, Housing Traffic, Pt Contemp 14, 18, 20, 81, 174, 1, 428, 441
- Amsterdam 431
- Amsterdam and dep of four in Amsterdam 48
- Amsterdam Amsterda lack part have eno Antwerp, 1) (1904) Antwerp, 114, 115
- Antwerp, 150
- Athens, A 226
- Athens, A (1931-1) Athens, E (1930) Athens, S Urban 1 (1940) 11





The Functional City

Based on an analysis of 33 cities , CIAM proposed That the social problems faced by cities could be resolved by:

- Strict functional segregation
- Distribution of the population into tall apartment blocks at widely spaced intervals.
-

These proceedings went unpublished from 1933 until 1942 when le Corbusier , published them in an edited form as **the Athens Charter**.

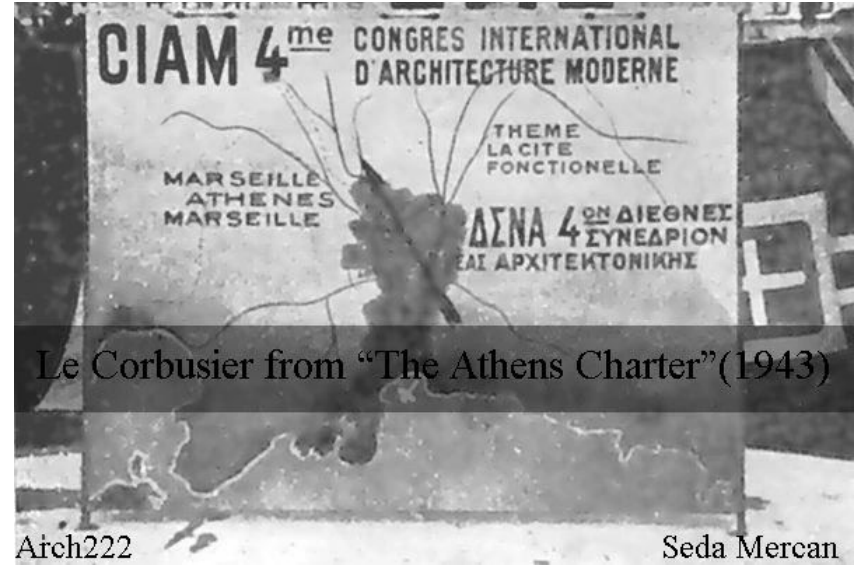
Atlas of the Functional City



The Athens Charter is a written manifesto which published by the Swiss architect and urban planner Le Corbusier in 1943. The book's context is about the Fourth Congress of CIAM as a summary .

The Charter effectively committed CIAM to rigid functional cities , with citizens to be housed in high widely spaced blocks.

Green Belts would separate each zone of the city.



The observations taken from the studies of 33 cities set guidelines under the titles :

Living

Working

Recreation

And **Circulation**

CIAM demanded that housing districts should occupy the best sites, and a minimum amount of solar exposure should be required in all dwellings. For hygienic reasons, buildings should not be built along transportation routes, and modern techniques should be used to construct high apartment building spaces widely apart, to free the soil for large green parks.

-Mumford, 2000, The CIAM Discourse on Urbanism, 1928-1960, The MIT Press, p85

it was important to reduce commuting times by locating industrial zones close to residential ones and buffering them with wide parks and sports areas. Street widths and requirements should be scientifically worked out to accommodate the speed and type of transport. Finally, with regards to conservation, historic monuments should be kept only when they were of true value and their conservation did not reduce their inhabitants to unhealthy living conditions.

ATHENS CHARTER

THE FOUR FUNCTIONS OF THE CITY

DWELLING

- occupy the best places in the city based on **typography, climate, sunlight and availability of green space.**

RECREATION

- sufficient open space
- Demolishing of unsanitary slums
- Weekend well-spent at favorable places
- well-defined purposes of spaces: children's playgrounds, schools, youth clubs and other community buildings closely related to housing.

WORK

- Reduce distances between work places and dwelling to a minimum
- Industrial zones are contiguous with railroads, canals and highways.

TRANSPORTATION

- Designing continuous passage of vehicles, using different levels for heavy traffic junctions.
- Classified Transportation routes according to their nature, and designed to meet the requirements and speeds of specific types of vehicles.
- Separating pedestrian & automobile routes