

# Modernism / International Style



*Endless Rhythm*, Robert Delaunay, 1934

## Background

- Principal architectural trend of the 1920s and 1930s - began in Europe with Bauhaus
- Style spread worldwide and dominated architectural style in mid 20<sup>th</sup> century

## Style - Key Points

- Geometric and asymmetrical.
- Modern materials - concrete, steel, glass.
- Functional, logical floor plans.
- Simple unornamented walls of glass and concrete.
- Dominant style of mid-20th century.

## Main Designers

- Ludwig Mies van der Rohe
- Philip C. Johnson
- Le Corbusier
- Eileen Gray

## Ludwig Mies van der Rohe (1886-1969)

- German-American - moved to USA in 1937 after close of Bauhaus in 1933.
- Severe simplicity of style - "*less is more*".



## Ludwig Mies van der Rohe (1886-1969)

- Elegance of materials - including marble, onyx, chrome, travertine, and rare timbers.
- Free-flowing spaces with minimal walls.
- Simple unadorned walls of glass and concrete.

Ludwig Mies van der Rohe (1886-1969)

German Pavilion for 1929  
Barcelona Exhibition

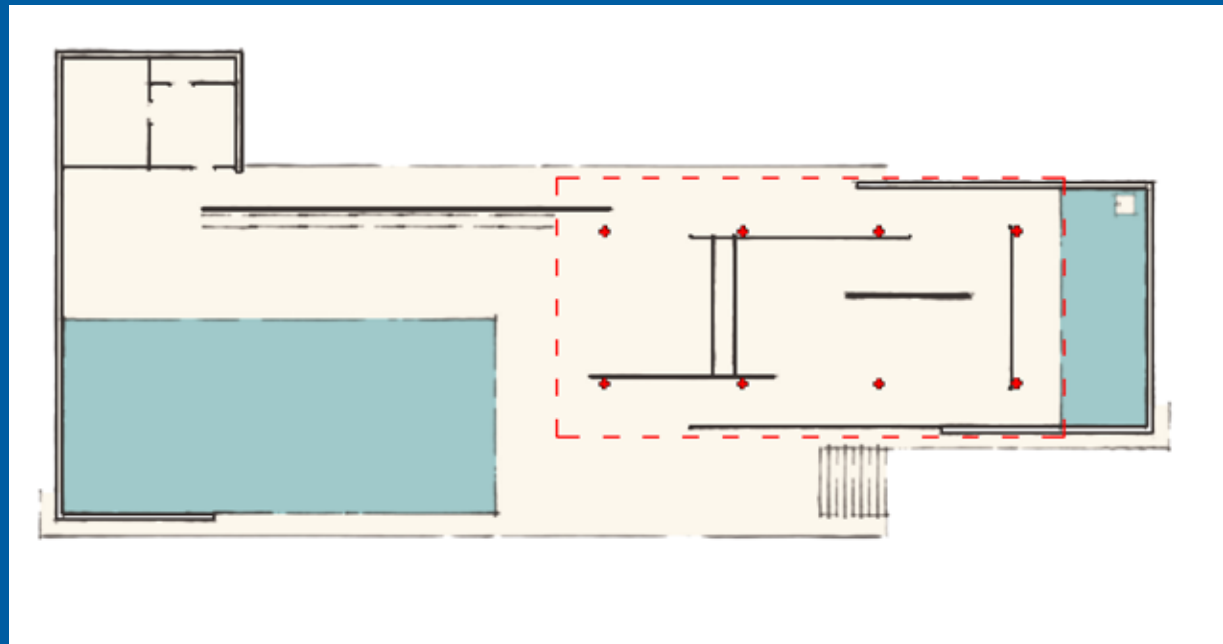


Mies van der Rohe attempted to create contemplative, neutral spaces through an architecture based on material honesty and structural integrity. This building was constructed as a temporary building for the 1929 International Exposition in Barcelona. Though temporary, it was still made of permanent materials — steel, glass, marble, and travertine.

## Ludwig Mies van der Rohe (1886-1969)

Like a Greek temple, the pavilion is raised on a base, in this case of travertine. The main building is on the right half of the base; an oblong reflecting pool and smaller building are on the left half.

The single story building has no real function--it is the exhibit. The plan is asymmetric and fluid with a continuous flow of space.



Geometric, asymmetrical floor plan

German Pavilion for 1929 Barcelona Exhibition



Ludwig Mies van der Rohe (1886-1969)



The lines are extremely simple and uncluttered.

German Pavilion for 1929 Barcelona Exhibition

Ludwig Mies van der Rohe (1886-1969)



Free-flowing internal spaces and elegant materials

Wall partitions are made of both transparent and opaque glass as well as highly polished marble. The low flat roof is supported by delicate metal supports.

German Pavilion for 1929 Barcelona Exhibition

## Ludwig Mies van der Rohe (1886-1969)

As has often been noted, the building has a kind of classical serenity.

Mies van der Rohe also designed the chairs (the so-called "Barcelona chair") and stools.



German Pavilion for 1929 Barcelona Exhibition

## Ludwig Mies van der Rohe (1886-1969)

This glass-walled residential work is Farnsworth House (1950, near Fox River, Ill.) and is seen by many observers to be the culmination of Mies van der Rohe's residential architecture. Again the platform is used and the extensive use of glass with the fine pillars, gives the house a lightness and a sense of floating over the landscape. The house is a part of the landscape and the landscape is a part of the house.



Farnsworth House, Illinois, 1950.

Ludwig Mies van der Rohe (1886-1969)

Pillar supports.

Free-flowing internal spaces.

Walls of glass.



Farnsworth House, Illinois, 1950.

Ludwig Mies van der Rohe (1886-1969)



Farnsworth House, Illinois, 1950.



## Ludwig Mies van der Rohe (1886-1969)

The Seagram Building in New York City (built in 1958; in collaboration with the American architect Philip Johnson) is considered the most subtle development of the glass-walled skyscraper. This logical and elegant 38-storey skyscraper (157.5m high) has alternating horizontal bands of bronze plating and bronze-tinted glass and decorative bronze I-beams which emphasise its verticality.

Seagram Building, 1958.



## Ludwig Mies van der Rohe (1886-1969)

Placed to the rear of its site and set back from Park Avenue, it incorporates a large plaza in the front as part of the design--thus avoiding the need for set-backs. It uses granite pillars at the base and has a two-story glass-enclosed lobby.

Pillar supports.  
Unornamented facades.  
Severe simplicity.  
Functional design.

Seagram Building, 1958.





## Ludwig Mies van der Rohe (1886-1969)

Over the last twenty years of his life, Mies van der Rohe achieved his vision of a monumental 'skin and bone' architecture. His later works provide a fitting denouement to a life dedicated to the idea of a universal, simplified architecture



National Gallery in Berlin (1965-68).

Ludwig Mies van der Rohe (1886-1969)

Severe simplicity.  
Pillar supports.



National Gallery in Berlin (1965-68).

Ludwig Mies van der Rohe (1886-1969)

Free-flowing internal spaces.

Walls of glass and steel.



National Gallery in Berlin (1965-68).



Furniture designed by architect.

## Ludwig Mies van der Rohe (1886-1969)



Mies van der Rohe's pieces were all designed to accompany his buildings. His acute awareness and appreciation of detail has placed him in his own architectural league. His furniture exhibits a timeless beauty, a genius in proportioning and a deep understanding of the nature of materials.

Mies died in Chicago, Illinois in 1969

Furniture. (Refer to the *Bauhaus* resource for information on Mies van der Rohe's furniture)

Philip C. Johnson (1906 - 2005)

- American architect - initially art historian -built first building in 1942.
- Buildings usually luxurious in scale and materials.
- Expansive use of interior space.
- Classical sense of symmetry.
- Later (in 80s) turned to Post-Modernism.

## Philip C. Johnson (1906 - 2005)

One of Johnson's many important works include his own home, the famous Glass House in Connecticut. The house was built with the same principles and at about the same time as the Farnsworth House, by Mies van der Rohe (1950).



The Glass House, Connecticut, 1949.

## Philip C. Johnson (1906 - 2005)

We again see the principle materials of the International Style — glass, steel and concrete.



The Glass House, Connecticut, 1949.

## Philip C. Johnson (1906 - 2005)

This house was originally built for the Rockefeller brothers as a guest house. They later gave it to the Museum of Modern Art. It was subsequently bought by the architect for an in-town residence.

The front façade is of Roman brick and painted steel with, of course, large expanses of glass.



Glass curtain walls.

Unornamented facades.

M.O.M.A. Guesthouse, 1950.



## Philip C. Johnson (1906 - 2005)

Located across a plaza from Louis Sullivan's Wainwright Building, this corporate headquarters is in a prominent location. The plan is a square bisected diagonally with one resulting triangular section lifted up. A huge cylinder--the lobby--is inserted in the centre.



Severe simplicity.

Glass curtain walls.

General Life Insurance Building, 1974-77.

## Philip C. Johnson (1906 - 2005)

Various textures enhance the building. The glass curtain wall (sometimes called "plaid"), the red brick, and the stark black metal columns, both inside and outside, add variety to the surface treatments.



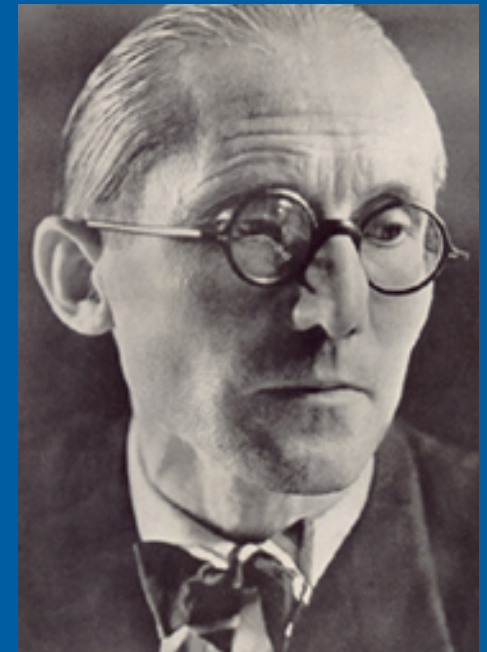
Pillar supports.

Unornamented facades.

General Life Insurance Building, 1974-77.

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**Le Corbusier (1887-1965)**

- French-speaking Swiss based in Paris.
- Work based on theory that the ideal house is a *“machine for living”*.

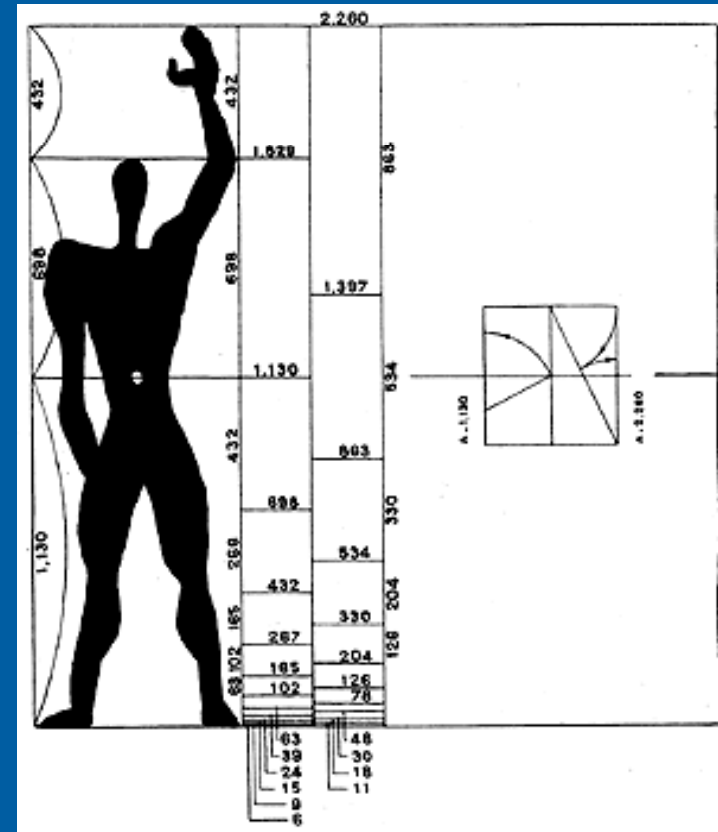


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**Le Corbusier (1887-1965)**

- New style based on engineering achievements of the time & new materials (such as ferro-concrete, sheet glass, and synthetics).
- Contemporary needs such town-planning and housing projects.

## Le Corbusier (1887-1965)

Le Corbusier was interested in the relationships of human proportions with the built environment and developed one of the most valuable design tools of all times, the Modulor scale of proportions.



*Modulor* scale of proportions

## Le Corbusier (1887-1965)

Le Corbusier's early work was related to nature, but as his ideas matured, he developed the Maison-Domino, a basic building prototype for mass production with free-standing pillars and rigid floors. The module design allows internal walls to be placed anywhere within, and this became the prototype for architecture of the second half of the twentieth century. It is called the domino house, as its plan view resembles a domino.



Maison-Domino

## Le Corbusier (1887-1965)

One of the most famous houses of the modern movement in architecture, the Villa Savoye is a masterpiece of Le Corbusier's purist design. It is perhaps the best example of Le Corbusier's goal to create a house which would be a "machine a habiter," a machine for living (in).

The Villa Savoye was the culmination of many years of design, and the basis for much of Le Corbusier's later architecture. Although it looks severe in photographs, it is a complex and visually stimulating structure

Villa Savoye (1929-1930)



Set on slender posts (pilotis)

## Le Corbusier (1887-1965)

The design features of the Villa Savoye include:

- modular design -- the result of Corbusier's researches into mathematics, architecture (the golden section), and human proportion
- "pilotis" -- the house is raised on stilts to separate it from the earth, and to use the land efficiently. These also suggest a modernised classicism.
- no historical ornament
- abstract sculptural design
- pure colour -- white on the outside, a colour with associations of newness, purity, simplicity, and health



Villa Savoye (1929-1930)



## Le Corbusier (1887-1965)

### Features (cont).

- a very open interior plan
- dynamic, non-traditional transitions between floors -- spiral staircases and ramps
- built-in furniture
- ribbon windows (echoing industrial architecture, but also providing openness and light)
- roof garden, with both plantings and architectural (sculptural) shapes



Main entry

## Villa Savoye (1929-1930)

Le Corbusier (1887-1965)



Interior view

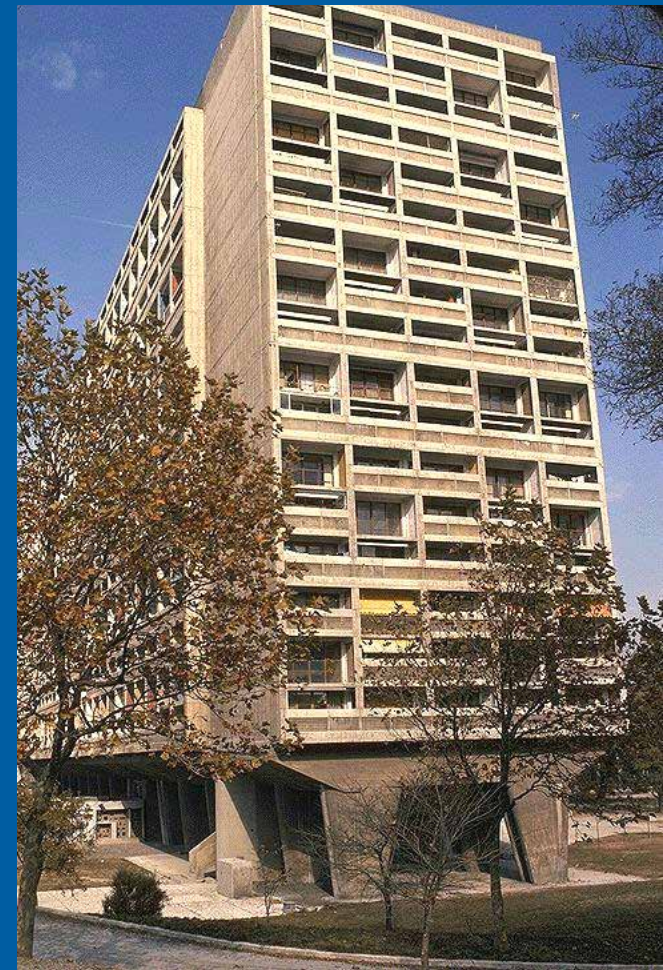
Villa Savoye (1929-1930)

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**Le Corbusier (1887-1965)**

Concrete construction

Raised off ground on sculptured pillars

Multi-family housing.



Unite d'Habitation, Marseilles, 1946-52

## Le Corbusier (1887-1965)

The chapel is a complex arrangement of interlocking parts, but the exterior aspect is of a single body, full of energy, visible on its hilltop from all sides.



Notre-Dame-du-Haut, Ronchamp, 1950-55

## Le Corbusier (1887-1965)

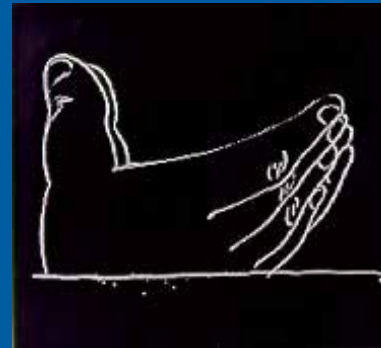
Except for the concrete roof shell, the building is covered in white roughcast. The walls are decorated with various sculptural features: small windows with coloured glass painted by Le Corbusier, a gargoyle and a basin for collecting rainwater, an outside pulpit. The variety of curved shapes make an attractive sight, yet produce a kind of lyrical tension. The sense of spirituality conferred on this simple chapel by Le Corbusier makes it one of the great religious buildings of the twentieth century.



Cement construction

Ruggedness, yet floating ethereal quality

Notre-Dame-du-Haut, Ronchamp, 1950-55



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**Le Corbusier (1887-1965)**

Notice the thickness of the walls and the various depths at which the windows are set, giving a sculptural feel to the building.



Asymmetric placement of windows

Notre-Dame-du-Haut, Ronchamp, 1950-55

## Le Corbusier (1887-1965)

An interior view and detail showing the coloured glass windows. Le Corbusier manipulates light here with great skill. Light pours into the chapel through the painted glass of the odd little windows, through the 'caps' over the secondary chapels and through the gap between the supporting walls and the roof.



Notre-Dame-du-Haut, Ronchamp, 1950-55

## Le Corbusier (1887-1965)

Le Corbusier reduced furnishings to basic essentials, 'equipment for living' as he called it, the aesthetic and moral equivalent of the purist architecture of his villas, which he sometimes furnished himself. His furnishings are simple structures with an extreme economy of line and using simple materials.



### *LC2 Easy Chair, 1928*

Designed by Le Corbusier in collaboration with Pierre Jeanneret and Charlotte Perriand, Chromed or painted steel structure available in various colours. Seat and backrest in leather or fabric.



## Le Corbusier (1887-1965)

Le Corbusier's furniture was created as instruments that should function harmoniously with spaces designed by and for the modern man.



*LC1 Easy Chair, 1928*

Designed by Le Corbusier in collaboration with Pierre Jeanneret and Charlotte Perriand, Chromed steel structure with leather seat and backrest.

## Le Corbusier (1887-1965)

His chairs responded to nothing more than the objective of being the expression of their function. Therefore, their basic components were organised around a metallic tube structure of the simplest possible form.



### *LC7 Easy Chair, 1928*

Designed by Le Corbusier in collaboration with Pierre Jeanneret and Charlotte Perriand, Swivel armchair with chromed or painted steel structure in various colours. Seat and backrest in leather or fabric.

## Le Corbusier (1887-1965)

Le Corbusier believed that any object of daily use should express the sum of two elements: form/function.

In this way, the liberated object would show its innate beauty and natural essence by means of the simplicity and basic nature of its form. Maybe it is for this reason that his chairs continue to be contemporary more than 80 years after their creation.



*LC4 Chaise Longue, 1928*

Designed by Le Corbusier in collaboration with Charlotte Perriand,  
Horse skin, leather, chromium plated steel, painted steel, rubber, cotton, metal, dacron

## Eileen Gray (1878-1976)

- Irish furniture designer and architect and a pioneer of the Modern Movement in architecture
- Originally studied painting, made mainly lacquered works and furniture.

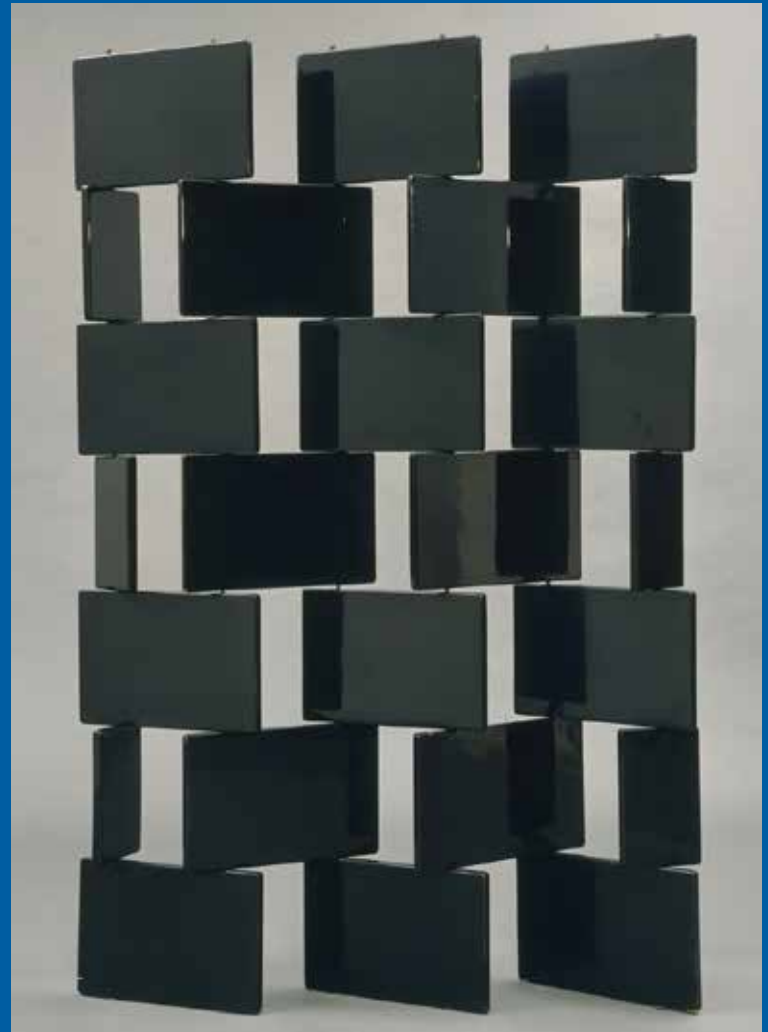


## Eileen Gray (1878-1976)

This lacquered wood screen is composed of several horizontal rows of panels joined by thin vertical metal rods. It functions not only as a movable wall that demarcates space but also as a sculpture composed of solids and voids. Gray, one of the leading designers working in Paris after World War I, popularised and perfected the art of lacquered furnishings. Her preference for the meticulous finish of lacquer reveals the contemporary taste for materials used in Japanese decorative arts.

*Screen, 1922*

Lacquered wood and metal rods



## Eileen Gray (1878-1976)

Gray stood out for the original use she made of materials and forms. She cultivated a sensitivity that allowed her to express movability and flexibility in her designs. This piece demonstrated a brilliant play in asymmetry.



*Non Conformist Chair, 1926*

Chromed steel tube structure, seat and backrest upholstered in leather

## Eileen Gray (1878-1976)

She dedicated herself to the creation of furniture  
*“adapted to our existence, in proportion to our rooms and  
harmony with our aspirations and feelings,”*  
demonstrating her belief in the formation of complete  
environments, in houses that she understood to be living  
organisms.

### *Adjustable Table E 1027, 1927*

Height-adjustable base, powder-coated tubular steel in black or chrome-plated.  
Tabletop clear crystal glass or grey smoked glass, or black lacquered metal.



## Eileen Gray (1878-1976)

Her furniture such as the Bibendum armchair, with its revolutionary chromed, steel tube structure have situated her among the 'sacred' of the 20<sup>th</sup> century. Between the 1940's – 70's her work fell into complete obscurity and her contribution to the modern way of life was not rediscovered until a few years before her death.



*Armchair Bibendum, 1929*

Chromed steel structure, upholstered in leather or fabric



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**The End**

Thank you.

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