

Essay on Modern Movement Exemplar

Barcelona Pavilion and Villa Savoye

1. Historical background

Barcelona Pavilion is a building created by architects Ludwig Mies van der Rohe and Lilly Reich. The project was completed in 1929 and the building is located in Barcelona, Spain.

The Pavilion project was to represent a self-portrait through architecture as a new Germany after World War I at the International Exhibition, which aimed to represent a democratic, prosperous and pacifist state. It is a very important building representing modern construction. The concept of the building was to show the elements of a "free plan" and a "floating roof".

Villa Savoye was designed by the architects Le Corbusier and Pierre Jeanneret. Construction began in 1928 and was completed in 1931. The town where the building is located is Poissy in France.

The Villa was built to represent modern construction as a house for the Savoye family. The architects had a wide field in the execution of the contract. The only comments they had to make were a summer house, a place for cars, a caretaker's house and an additional bedroom. In the project that was created, the villas had to be reduced from 5 metres to 4.75 metres because of the cost to the couple that they would have to bear.

2. Plan and Section

Barcelona Pavilion the principle of a free plan and a spatial continuum are the elements on the basis of which the pavilion was created. In the pavilion, the walls do not serve as a structural part that holds the roof of the building. They are only a partition and a way of defining space, and the burden of maintaining the ceiling is transferred to the columns. Its function combined with the mild Barcelona climate created an unusual form of building. The pavilion is not closed, with traditional doors or walls like in traditional utility properties but is open to the surrounding square and garden. Similarly, the interior of the pavilion is open. According to the principles of modernism, walls do not have a structural function, but a decorative one. In the Pavilion there is no clear division between the interior and the exterior. The Pavilion is located on a travertine pedestal with a pond. The ceiling of the pavilion rests on polished and chrome-plated steel columns with a small cross-section. It is made of reinforced concrete, which has been plastered. The flat roof is made in the shape of an isosceles cross. The walls made of

onyx doré, two types of green marble, travertine and transparent and coloured glass are located between the floor and the roof.



Figure 1 Barcelona Pavilion plan, sketch drawing Blanka Grobelna

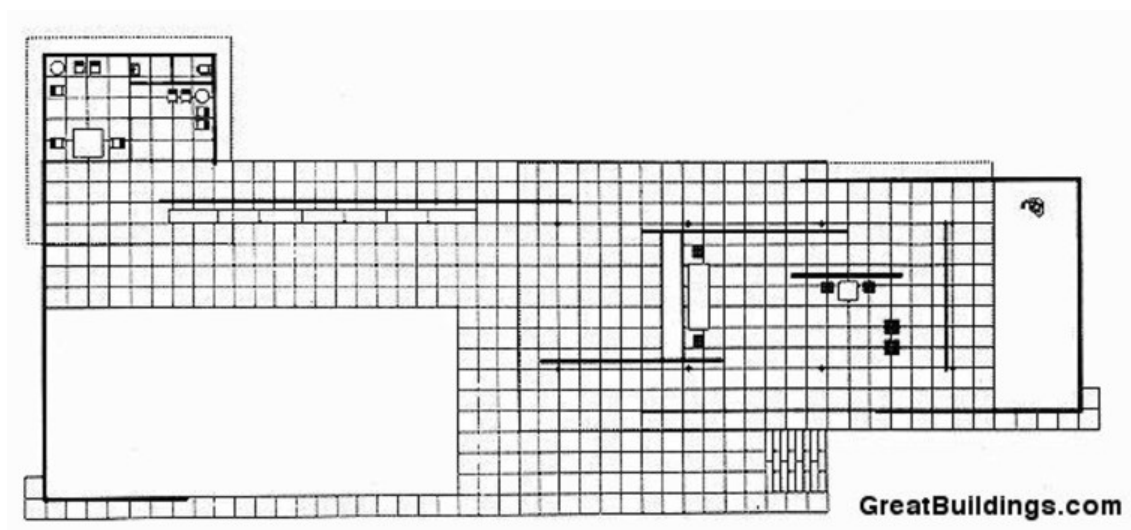


Figure 2 Barcelona Pavilion plan drawing

Villa Savoye was built on the basis of five modern architectural elements. The stilt structures. In the project, pile construction was used. Much of the first floor was supported by external columns used for vehicle traffic. The roof terraces. The terrace is located on the roof. It has two flat roofs on other levels and a separate living space. It is a garden on the first floor and a solarium on the second floor. The building has an open free plan. The walls are not load-bearing due to the floors, which are supported by a network of reinforced concrete posts. They act as external and internal partitions. Le Corbusier thus designed a living room of 86 square metres, which gave an external space with full windows on three sides and one window panel measuring 9x3 metres. Open facade. This type of construction gave him a free choice of window shape on the façade, as it was not limited. The ground floor was naturally illuminated by space. He created a rounded and glazed façade. What we can see on this level. The last fifth point is The ribbon windows - two-level, trained panels, then one of them moves along the total length of the next one. The architect will place them in the middle of the façade to provide as much light as possible to all the rooms in the house.

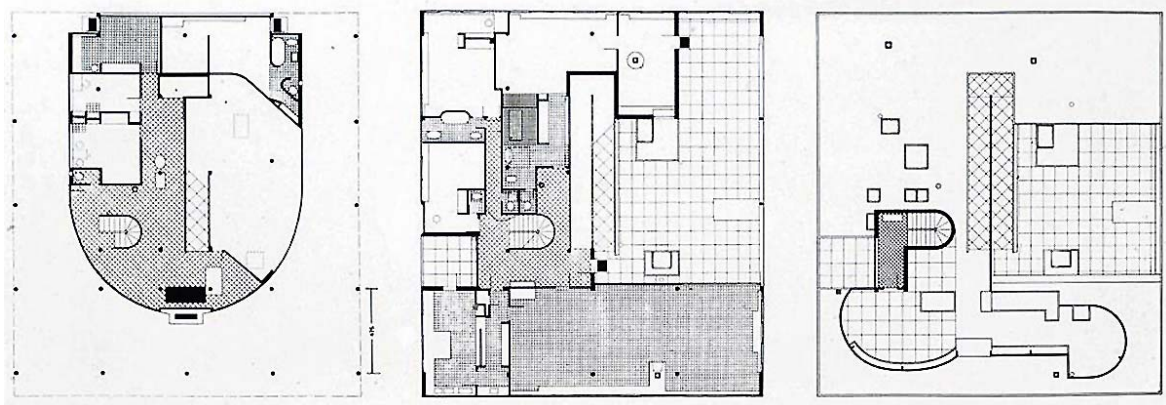


Figure 3 Villa Savoye ground plan, first story, atrium and roof garden

Comparing the plans of the two buildings, they are very similar. In both these buildings there is a free plan. In addition, the walls of the buildings are not intended to support the building's structure. They had poles and open space in the interior of the buildings.

3. Materials and Light

The choice of materials for Barcelona Pavilion are incredibly well matched. The most important elements of this building are glass, steel, four types of marble and reinforcement concrete. Golden onyx, which is located in the main space of the building. It attracts the attention of visitors. It has a large size and thickness and a colourful drawing. One of the marble types on the outside, called travertine, works by the sun's rays as if the impression is that it transforms the pavilion into a single entity, not a separate one. The roof is supported on the basis of classical Roman travertine marble. It is also used on the floor, walls, front courtyard and main bench. Steel and glass cause the frame. The walls are made of large blocks of marble. They have beautiful colours and patterns that make the building a work of art. Chrome-plated eight cross pillars and a flat concrete cover. The building has a black carpet with four chairs and a red, large silk curtain. A chair with a silver metal profile and pale leather on top of it is available on request. George Kolbe's sculpture is located in the courtyard and decorates the pond. Made by George Kolbe Dawn is a brown reproduction. It is reflected in water in marble and crystals, which

gives the impression of increasing the volume of space. Barcelona Pavilion is a building that consists of horizontal planes. A combination of marble and glass that seem to float and look free standing. Therefore, light is defined in space as a medium. There is a mirror reflection coefficient there.



Figure 4 Barcelona Pavilion sketch drawing Blanka Grobelna

Steel, glass and reinforced concrete. Corbusier in Villa Savoye used reinforced concrete and plastered wall. The building was a method of five points of new architecture which included an open plan and free space. In order to create such a building, he needed materials that would allow him to do so, which is why he chose reinforced concrete. He could easily create a solarium and a U-shaped ground floor. The horizontal and long wall around the wide windows provided structural support. The space and large windows allow natural light to enter the building. It is very well lit.

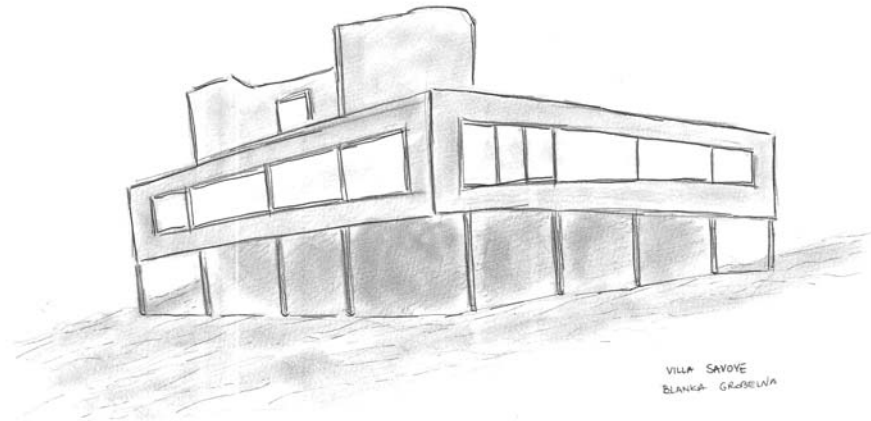


Figure 5 Villa Savoye sketch drawing Blanka Grobelna

4. Idea and theories underpinning the design.

Ludwig Mies van der Rohe was based on the idea of "less is more", which is why Barcelona Pavilion was founded on this principle. This idea was taken from Frank Lloyd Wright's work, which inspired the architect to follow simple and spatial forms such as a rectangle to form an open plan. This gives the impression that the interior and exterior of the pavilion are the same, which simply makes us understand that less is more.

The most important elements of Corbusier's design are shape, structure, edges and geometry. Its five points of new architecture, which Villa Savoye is considered to be the best example of. Flat roof, thin columns, horizontal windows, mullion and transom construction and free internal layout.

After I World War, there was a development of technology and hope for a better future. Rapid social changes increased freedom of action and gave the opportunity to look to the future in an intellectual way. Therefore, at this particular historical moment, the approach was changed and architecture was viewed in a different way. New ideas and ideas emerged.

These two buildings were linked by the pursuit of functionality. A very important slogan of modernism was Sullivan's maxim "Form follows function". Huge meanings are also connected with the sentence I mentioned above, used by Mies van der Rohe "Less is more". I can also quote Five Points of Modern Architecture by Le Corbusier. This type of architecture combined the form, function and construction of the building. These were new aspects of building design.

5. Conclusion/ Summary

The key points are to follow slogans such as "less is more" and the famous five points of modern architecture. The building has ceased to be perceived only as a building, and above all as a work of art, abstractions. Any ornament was rejected. Both buildings are the most important examples of modern architecture and are linked by a similar time. The most important materials used by Mies van der Rohe for Barcelona Pavilion are steel, glass, four types of marble, reinforcing concrete, golden onyx. The materials from Villa Savoye Le Corbusier are steel, glass, reinforced concrete, flat roof, wide windows, reinforced concrete. Both buildings were guided by free space and an open plan.

In conclusion Barcelona Pavilion and Villa Savoye were phenomenal projects that we have been talking about to this day, writing and drawing from them the enormous amount of wisdom that architects such as Ludwig Mies van der Rohe or Le Corbusier showed. This work gave me additional knowledge from the modernist era, which I will surely remember.

Bibliography:

- Simon Unwin "Analysing architecture" Abingdon : Routledge 2009
- Charle Jencks, "Le Corbusier and the continual revolution in architecture" Le Corbusier, 1887-1965, New York, NY : Monacelli Press, 2000.
- Richard Padovan "Towards universality : Le Corbusier, Mies, and De Stijl", Abingdon : Routledge, 2002.

Reference:

- https://search-proquest-com.ezproxy.uwtsd.ac.uk/docview/199295288?accountid=130472&rfr_id=info%3Axri%2Fsid%3Aprimo
- file:///C:/Users/blank/Downloads/Building_Desire_On_the_Barcel.pdf
- <https://www.archdaily.com/883470/mies-van-der-rohes-barcelona-pavilion-dematerialized-with-all-white-surfaces>
- https://www-jstor-org.ezproxy.uwtsd.ac.uk/stable/991812?sid=primo&origin=crossref&seq=2#metadata_info_tab_contents
- http://greatbuildings.com/buildings/Barcelona_Pavilion.html
- <https://pl.khanacademy.org/humanities/ap-art-history/later-europe-and-americas/modernity-ap/a/corbusier-savoye>
- <http://theconversation.com/sublime-design-le-corbusiers-villa-savoye-26625>
- <https://en.wikiarquitectura.com/building/german-pavilion-in-barcelona/>
- <https://villasavoye.weebly.com/the-building.html>

Pictures:

- <https://www.archdaily.com/109135/ad-classics-barcelona-pavilion-mies-van-der-rohe/5037febe28ba0d599b0007f4-plan>
- <https://www.khanacademy.org/humanities/ap-art-history/later-europe-and-americas/modernity-ap/a/corbusier-savoye>

Blanka Grobelna

Module: History and Theory 1

Module code: M4X01975

Student ID number:1708723

1504 words