



# The Use of Meier's White Design Technique in the Jubilee Church

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**Abstract.** Richard Meier is an important representative of the white school in modern architecture. He adhered to the practice of modernism function, and the use of white and three-dimensional composition style fully reflected the purity of his architectural concept. Therefore, Meier is a representative figure of “White is sent” and “new modernism” architecture. His works have distinct external personality characteristics, which is inseparable from his unique design techniques. This paper first introduces Meier and his “white” architectural thought, and then expounds the influence of Wright and Le Corbusier on Meier's architecture. Finally, this representative work, Jubilee Church in Rome, illustrates the embodiment and application of Meier's white design technique in architectural space.

**Keywords:** Richard Meier · White is sent · Design techniques · The Jubilee church

## 1 Introduction

Most people think that white buildings are boring. But Meier always believed that white is the best reflection of structure, layers and light effects, and that white buildings can make the layers of buildings look richer in different environments, different seasons and different times of the year. The biggest characteristic of Meier's architecture is the persistence of white, which has become one of Meier's labels. Hence the Jubilee Church, a popular classic.

## 2 Wright and Le Corbusier's Influence on Meier

Richard Meier was born in Newark, New Jersey, and studied at Cornell University in Ithaca, New York. After stints at S.O.M. and Breuer in New York, as well as part-time teaching positions at various universities, Meier studied and worked under architects such as Marcel Breuer, one of the “top five authorities on architecture.” It was in the late 70s and early 80s that Meyer's work began to reach Europe, which has a long cultural history, and had a profound impact [5].

As an excellent architect, he must have had very important and influential peers when he was growing up. Therefore, his design ideas are more or less related to the people

and events he has experienced, and Frank Lloyd Wright and Le Corbusier are the two architects who have a profound influence on Meier.

Although there are obvious differences in their design ideas and styles, it is not hard to see that in some moments, their design concepts have great similarities, so they can better express their mutual learning along the way and learn from each other's works to learn something more suitable for themselves. For example, architect Wright's classic design Fallingwater has some similarities with Meier in the design concept. Geometric shapes are used to connect important features and images of the surrounding buildings, and they are echoed by the lines of flowing water [1]. At the same time, Meier's approach is to create the atmosphere of the space through the collocation of geometry and light, so that it forms a foil to the surrounding environment of the whole building, which can not be coordinated and balanced with each other. Through the combination of dynamic and static form to cleverly show the design of the building.

And Le Corbusier has become a new trend in the field of architecture. After the 20th century, designers entered the direction of modern purist design. They advocated the formation of natural beauty by economic laws and numerical calculations, and established a new aesthetic view based on orderly rules. What it wants to express is the hope that through the combination of architecture and nature more harmonious, "hard" and "soft", "static" and "dynamic" mutually foil each other, through the plane, vertical, Angle and form of the building with natural light irradiation, mutually foil each other to create a balanced form of beauty for the space. Through the ideological rendering of Wright and Le Corbusier, Meier has further achieved his expression of the pure beauty of architecture, truly realizing the reasonable use of white and natural light.

### 3 Meier and "White" Architecture

White is a magic color because it is called both colorless and colored. Without his presence in the colors of the rainbow, but upon it can see all the color of the rainbow, it in people's lives and everywhere, it is no matter when, no matter where, it will be because of the change of the light produce a subtle magic again change, in other words, the change is on all objects in the nature of light and convert.

In Meier, meanwhile, the design of the building, the mind is clever use of the white, make its become the main tone of his building, and make it become the Meier's a sign of another form, at the same time with a little color, white color to foil the whole building, clean, let a person, at the same time, therefore, Meier is affectionately known as the "Master White architect". For most people, the emotion expressed by white is monotonous nothingness, not jumping off, not noble, but it is because of these pure adjectives that Meier achieved the concept of white in his heart. He thought it was quiet, it was gentle, it was colorful, it could change with all the objects in the world at any time. In Meier's heart, no matter how outsiders evaluate his single, can not make him shake the white firmness and love. He is always able to give his white buildings his unique understanding with the changes of society and surroundings, so as to show his works to the world, showing his indissoluble relationship with white.

"White is a wonderful color that separates the building from the local context," Meier said. Can clear to this sentence in Meier's heart, white building is like a porcelain, or shell

the eggs, no matter in the city, because the whole world indelible all sorts of color, the white building stands in the middle of the color more radiant, attention, it will become the focus of people's eyes, as the symbol of the local city, People's subconscious direction markers. It blends in with the environment and out of the environment, like a child with a temper, independent and lying in the arms of the family.

Meier's work is mainly based on the nature, on the basis of the collocation of their own design concept, through the overall architecture of the white color, green plant adornment such as on collocation, but also give a person a kind of bright and pure and fresh and free from vulgarity visual impact at the moment, he also use white color to foil out of the building in natural relationship between foil each other. Because he believes that white is a symbol of clean, bright and beautiful. Do not pay attention to the colorful decoration style, most of the architectural space is to use a limited number of colors to match the white tone, and most of the colors used have the characteristics of low saturation, low tone, low lightness, through the simple color experience to bring it pure, quiet, rich spatial visual experience.

Meier once said that what he pays attention to is not a simple abstract concept of space, but a real spatial structure, a spatial structure in which architectural culture is directly related to natural light culture and so on [2]. In the architectural concept, Meier's relative attention to cubism composition and light and shadow effects, in the white geometric space to make a simple spatial structure to fully combine the interior and exterior space and volume. In the interior space of the building, he used geometric space and the reflection of visual feeling brought by natural light to reflect a different effect on the building. The effect is bright, pure, and gives people a sense of comfort and design. He explained the old building from a new design perspective and added geometric space. In order to create a new modern design concept, make the space, volume and light combination of deconstruction, skilled use of natural light mapping on the white building [3], make its scale and the change of the surrounding landscape can with the static feeling of the space to achieve a balance, form a new space feeling, is also a kind of unique visual impact to the person.

Before this Meier's various architectural design are showed his superb design technology, Meier with his seemingly cold seemingly abstract design style to show the whole building space design, but with the white is a very able to bear or endure look but not make public of visual representation, and at the same time, the complex geometric form of architecture and Meier will not make public the colour of be in harmony are an organic whole, It's more like hiding it in a relatively reserved emotional shell, which suggests that formal white has a unique vision and use in Meier's mind that has made him famous today.

#### **4 The Jubilee Church in Rome — Meier's Classic Representative Work**

Jubilee Church, built in 1998, spanning the turn of the century in 2000 and 2003. Millennium is not simply a thousand years, it is actually a biblical concept of the transition between the end times and the new birth, but this cycle does occur once in a thousand years, so it gradually evolved into the secular concept of "millennium". Therefore, the

millennium is of great importance to Christianity. The Holy See formulated a grand Jubilee plan for this purpose, and the most important project of the Jubilee plan was the Jubilee Church, which was called the “crown jewel” by the Holy See.

The early “White School” was actually a Bauhaus-like architectural design organization with a similar style, and its main members were five New York architects, so it was called the New York Five. The group became famous in the 1970s but soon died out in the 1980s, though its members remain active in their respective fields, and Mr. Meier has left a legacy of excellence in architecture with his most distinctive insistence on white, including the Jubilee Church.

As a contemporary church embracing the new century, Jubilee Church has a lot to say. While other architects express their work in a variety of colors, Meier stands out from the crowd by presenting large areas of white. White is the most inclusive color, any light and shadow can play freely on its surface, white is also the most demanding color, always incompatible with the secular color. Black and white may not do it justice, but white pie does. Although itself is lack of color, but the visual effect of it is pure white church seems independent of other buildings, formed a sense of isolation, at the same time, because the Mediterranean climate does not exist in the natural world is absolutely white patch, so in this large white flawless in cities like pearls, is referred to as the “pearl” church is better.

The most prominent part is the three arcing walls resembling sails, which enclose the church itself [1]. The three arc wall it totally different from the Sydney opera house, not extend from building itself, but is entirely underground living, there is a trend according to track rotating become sphere, such three sphere formed three interlaced each other space, also with the church that the linear structure of the temple, not only can let a worshipper feel surrounded by divine sustainable space, It also developed a concept of transmigration. Through the use of glass curtain wall, the light in the room is reflected by the curved wall, so as to get a good contrast between reality and reality. And through the glass, the light is brought into the church through the skylights and side windows, making the whole space immediately bright [6].

As the Angle of sunlight and the color of daylight change throughout the day, white proves that it is far from nothing, but quite the opposite. It reflects all the changes in light. The magenta of twilight, the white of noon, the brilliant intensity of dusk, the dim moonlight of starry night... Is the true journey of the sun and moon if out of it, if the stars and Han brilliant. Compared to the minimalist unity of colors, the structure of the building is much more complex. It is difficult even to describe the shape of the building, which is almost entirely composed of random geometric lines.

The other part of the community center is a regular rectangular building, which together with the curved walls symbolizes the ancient concept of a round sky and a round place. This part seems simple, but actually plays the role of solid and simple earth, which makes people feel solid power while wandering, and is the backbone of architectural spirit. The interior of the building appears to be modern, but in fact it is very much in keeping with the Gothic tradition [4]. The interior space gives everything the tendency to “burn” upward along the walls, and this vertical style is the essence of the Gothic church. The glass structure at the back and top of the building brings light to the interior. Light is introduced from the back of the church, and in the afternoon, the

intense sunlight is almost direct to the worshippers, creating a strong protective effect and connecting with the light at the top, achieving “the implication of a bright future in the new century”. The white building wall and the overall space work through a certain internal echo, making his architecture full of a certain taste of art, giving people a comfortable and soft feeling, and purifying people's mind.

## 5 Conclusion

As an excellent architect who combines white architecture with natural light and shadow, Meier changed the traditional design methods at that time and redefined color in architecture. Therefore, whenever people mention Meier, they always think of large white and the visual feeling brought by white. From the perspective of morphological semantics, this is a kind of relationship that people have been looking for a long time, a relationship that can make people feel happy and satisfied in body and mind. They can snuggle with each other and form the form of beauty, harmony and balance around the changing unity.

For church design, white has unique advantages. In Christian doctrine, light represents holiness, and white is the color of light. It was a match made in heaven for Mr. Meier, a master of light and shadow. But he did not disappoint us, his works always have the taste of light. “White School” originated in the period of the germination of postmodernism art, but in the process of “surrealism”, it retains the religious tradition to a large extent. If this setting is connected with its completion time across the new century, it may be a match made in heaven.

The shape of Jubilee Church is avant-garde and fashionable, with a sense of detachment from the times and the implication of the future. Meier has created a new modern design road of his own by combining his white design concept with modern architectural thoughts. In addition, the Jubilee Church has become a typical representative of the new image of the Christian church in the 21st century and a classic work in the modern architecture of the “White is sent”.

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