

# Empathy and Light and Shadow Intermingle in Religious Architecture - Take the Church of Ronchamp for Example

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## Abstract:

Religious architecture is a manifestation of the materialization of religious ideology. The clever application of light and shadow in religious architecture has injected soul and blood into the architecture. With influence of empathy, religious disciples integrate their worship of God and understanding of light and shadow in the architecture, resulting in the spiritual state of integration of surroundings and themselves. Le Corbusier perfectly embodied this transference theory in the design of The Chapel of Ronchamp, making the thoughts of disciples resonate with the church's light and shadow.

## Keywords:

Empathy, Light and Shadow, Religious Buildings, Ronchamp Chapel

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## 1. What is Empathy

Empathy is one of the most representative theories in western modern aesthetics and psychology. Empathy is emotional, which means that people take a thing as an object and project or transfer their emotions to the object, so that the object becomes an emotional object with people. It was first proposed by a father and his son, Friedrich Theodorvischer, a German psychologist and philosopher, who analyzed empathy from psychological perspective, that is, to infuse life into inanimate things through humanization. Friedrich Theodor Vischer believes that the occurrence of aesthetic feeling lies in their feeling and emotional resonance between people and their surroundings. Theodorlipps (1851, 1914), an aesthetician, pushed the theory of empathy toward greater progress. In his book space aesthetics, put forward the theory of empathy in aesthetic enjoyment, by taking the doric columns in Greek architecture as an example, believing that the characteristic of aesthetic pleasure lies in the aesthetic object being infused by the aesthetic subject. And the psychological activity of self-appreciation exists actually. Such infusion of life is not intentionally done by the subject, but is completed in the way of unconscious internal awareness experience, which is similar to the instantaneous experience of Chinese eyewitness Daosu. The difference is that in the western theory of empathy, what the subject experiences in the

object is some internal emotion or formal experience of the subject, while in Chinese eyewitness Daosu what we experience is a kind of universal way in which the mind and the external things fit together, but they have one thing in common, that is, they are the unity of the mind and the external things between subjects.

## **2. Empathy and Light and Shadow in Religious Architecture**

### **2.1. Religion and Religious Architecture**

Religion comes into being because of the poor living conditions of primitive human beings. In the struggle between man and nature, the mysterious yearning for nature and the fear of the unknown world come into being and are endowed with the will of personality. When human beings entered the civilized society, primitive religions gradually improved and developed, forming the three largest religions affecting the world: Christianity, Islam and Buddhism. From the perspective of the development of religion, religion has exerted great influence on politics, economy, social life, philosophy of art, psychology and morality in society.

From the perspective of sociology, religious belief can meet the spiritual needs of ultimate care for people. It imagines an illusory celestial world for people, where there is no pain in reality, and makes people endure all kinds of suffering in real life, and guides people to place their happiness in the illusory heaven. The fear of death begins when people know that death means the end of life. Religion alleviates people's fear of death by pushing the meaning of life to the other side of the world through some belief or "god" or other forces.

Of course, not all religious believers can unconditionally sail to the happiness of the other side of the world, only by following the constraints of religious ethics, sincere faith, it is possible for people to ascend to heaven or paradise. Therefore, the moral function of religion has an influence, sometimes even more than the binding force of the law. Generally speaking, as long as there are problems of suffering and death in reality, people need religion as their spiritual sustenance, so religion will exist.

God or deities, as an illusory supernatural social existence, are used by human beings in various ways to worship. Building is one of the ways, and it is the sacred space based on the real world, and is the main carrier of emotional attachment by which people are spiritual communication with God or the gods, through unique charisma and mysterious religious space, people who enter the building are proselytized, conquered by its powerful spiritual strength, which is the empathetic appeal, proposed by Theodor Lipps. When people are in this religious architectural space, the understanding, association, worship and appeal of religious teachings, the religious believers' consciousness and space atmosphere are integrated, and empathy comes into being. Empathy in early religious architecture aesthetics is caused by space dimension and light to the cause primary fear in the heart of people. Temple of Karnak in Egypt is taken as an example, including cylindrical hall as part of its most famous, with 134 columns, each pillar up to 21 meters, about 3.57 meters in diameter. In this hall, people are unable to see the central axis of diagonal, The papyrus capitals of the high central columns obscured the upper beams. The ceiling seems to be suspended in the air under the light from the high side windows, which are shaded by the beams and capitals. The interior is dimly lit and has the mysterious atmosphere required by a temple. Medieval Christian buildings are mainly gothic churches, which has strong upward moving trend, lightly spirit upward vertical line style and religious

paintings with colorful decoration, When the light are shining through the colorful pictures, showing a dazzling effect, make the person produce a psychological hint of approaching heaven, which also makes the faithful respect the kingdom of heaven. “Even in his aesthetic works, Wallinger never forgets to take care of Gothic art, while his profound theory clearly explains the essence of religious space, a place of inspiration and empathy.”

Empathy is an important psychological mechanism for religious architecture and believers' aesthetic activities. The following is a brief explanation of the interaction between religious architecture and subject empathy from two aspects of light and shadow.

## ***2.2. Light, Shadow, Architecture and Empathy***

According to Genesis, light was the first to be created, and God revealed himself by light, “the true light that illuminates every man that is born into the world.” In the Bible, Jesus told the crowd, “I am the light of the world. He who follows me will not walk in darkness, and must have the light of life.” As a result, light is the incarnation of God, and in church architecture, light gains more spiritual significance.

“Light is not only the blood of a building, but also the carrier of the architectural language system. It is the generative organ of architecture and the medium of direct dialogue with people.” The use of light in western ancient architecture has made great achievements. The pantheon in Ancient Rome forms a visual focus through the huge lighting opening in the middle of the dome, which strongly attracts people's eyes. When the light is scattered in the dark church in a fantastic and ethereal manner, the desire for light is transferred to the worship of gods. In medieval churches, the planes mostly are adopted Latin cross and the layout is mainly east-west axis. The altar is located in the east . Through the stained glass of the tall side window, believers can face the first ray of sunshine rising from the east, which can bring believers into the fantastic yearning for heaven. The worship of God ,the desire for light, the mood of reverent awe and the towering, upright and uplifting huge space produce an empathic effect of blending with surroundings. The Gothic church thus is transformed into an immaterial spiritual world from a material place.

Light and shadow are the soul and life of architecture. Because of light and shadow, architecture is able to display space and artistic modeling. Light gives the building outline, and shadow gives the building depth. Although shadow is an appendage of light, it can bring peace, tranquility and mysterious psychological feelings to believers in architectural space. Light symbolizes the unique God, but only in the dim and shadows can people calm down and feel the mysterious space, which sets off the holiness and power of God and makes believers believe that God is with them. Thus, in the consciousness of the believer, the place of empathic space is formed.

Gothic church skillfully uses light and shadow to obtain extraordinary artistic effect. For example, the shadow art in Notre-Dame de Paris is the light shining through the stained glass on the high side window, which contrasts with the dark space. This hazy mood encourages believers to dream and yearn for the kingdom of heaven. It is the contrast between shadow and light that promotes the generation of empathy and achieves the ultimate goal of religion. With the continuous development of time and the progress of science and technology, human ideology is also developing. In the Middle Ages, people admired and worshipped the unreachable God, but modern people hope that God can have equal dialogue with saints. Therefore, modern

religious architecture should adapt to the new ideology in external modeling and internal space design, and the application of light and shadow in religious architecture design is also constantly developing innovation. Le Corbusier's Chapel of Ronchamp can be described as a perfect combination of light and shadow and empathy.

### ***2.3. The Role of Light and Empathy in the Chapel of Ronchamp***

The Chapel of Ronchamp, built in 1950 on top of a hill in the Sonne region of eastern France, is a late masterpiece of Le Corbusier and a classic of the 20th century with its mysterious and grotesque sculptural forms and intricate Spaces of light and shadow. Le Corbusier highly praised the expression of light and shadow in architecture. He once said in *Towards New Architecture* that “the elements of architectural art are light and shadow, wall and space.” The wall is the medium of natural light and shadow and architectural space communication. The southern wall of Ronchamp is called the Light Wall, which has irregular window openings, small openings for the outside and large openings for the inside. The outer wall is inlaid with stained glass, which is designed to avoid the hot sun and soften the light when it comes in. When the light from the outside enters the dark space through these windows, the whole space seems to be instantly infused with spiritual vitality, creating a wonderful hazy mood. After this atmosphere collides with the visual perception of devout believers, the aesthetic empathy between the subject and object naturally occurs. Therefore: light and shadow in the expression of lofty, sacred artistic realm, is incomparable to any other language.

Le Corbusier is the “master behind the scenes” to adjust the light and shadow. Different functions of the building need to create different artistic atmosphere. In the processing of light and shadow on the east wall of the church, due to the inclusion of the sacred remains of the Virgin Mary, the light pour in through the glass, with strong light, and clear shadow outline, highlighting the holy image of the Virgin Mary. The combination of light and shadow makes it spiritualized, which is similar to the use of light and shadow in the Altar of Saint Teresa designed by The baroque architecture and sculptor Benigni.

Not only is every wall of Ronchamp carefully designed by Le Corbusier, but the connection between the roof and the wall is also unique. The roof is not connected with the south wall and the east wall in the design, but each leaves a 40mm gap, when the light comes in, the roof and the wall seem to break away, so the roof is in light floating state. The south wall is scattered down with the mottled light and shadow lively. With a bit trance and blur, a bit dark and mystery, accompanied by the worship and admiration of God, the emotion expressed by the building is integrated into the hearts of every believer with the action of light and shadow.

Light in Prayer tower comes through a circular shaft of the grille window .Because of the relatively coarse wall surface materials, light through interior wall diffuse down, so light shadow becomes soft, warm sprinkling in the face of the saints, light into their hearts. Warm, soft maternal human consciousness is empathetically transferred out. The first thing people feel is this quietness and peace. It was as if the hustle and bustle of the outside world had long been far away, and only God quietly listened to the people immersed in prayer and repentance. Different space atmosphere needs the help of different light and shadow, but on the whole, What Le Corbusier wants to reflect is the equal view of man and “god”. First of all, in terms of architectural volume, Ronchamp church is far from pointing to the sky like medieval

Gothic churches, striving to get closer to the distant God. Instead, it adopts a sculptural shape to shorten the sense of distance between God and believers. Secondly, in terms of internal and external space processing, the ground of Langchamp Church is basically flat. The altar is only about one step from the ground, and there is only a small space gap between believers and saints. This kind of spatial processing method, approachable, eliminates the psychological inequality. In such a space, the light passes through the colored glass, through reflection, diffuse, refraction, etc., to produce mysterious light and shadow effect, believers are surrounded by soft light, light is the incarnation of God, with the influence of empathy, people seem to be embraced and sheltered by God, but also close the distance between God and human. God is not as high and distant as he used to be. This is also an initiative of Le Corbusier in design. This design method was adopted by the famous Japanese architect Tadao Ando, whose work is the Church of Light. The interior of the church has only a sloping road down, no steps, and most importantly, the seats of the faithful are above the altar. "What I care about is that everyone is equal, in the Vatican, high above is the church, and the priest stood higher than the audience, but I hope that the priest in the church of light and the the faithful are equal. In the church of light, walking steps are sloping down, so the priest stood as the audience sit high, thus eliminating the inequality in psychology .This is the essence of the church of light." Mr Ando said.

### 3. Conclusions

Rogers, a famous British architect, once said: "Architecture is a vessel to capture light, just like how a musical instrument captures music, and light needs a building to display". Religious architecture provides a place for light and shadow to show their functions. It is through light and shadow that empathic aesthetic psychology can better realize the dialogue among people, architecture and God. Corbusier's design of light and shadow in The Chapel of Ronchamp is accompanied by the reflection of modern architecture on human nature. Each space produces different light and shadow effects according to its function, and uses the architectural language of light to have a more harmonious and direct communication with people, triggering the corresponding emotional response of believers, helping to improve people's spiritual comfort and fantasy of heaven's desire.

With the quickening pace of modern life, people's mind is under too much pressure. People need a place where they can calm their mind and pour out their troubles, where light brings them hope. When designing religious buildings, architectural designers should pay attention to the changes of light and shadow in every detail, so as to make buildings full of life and vitality, integrated with religious beliefs, and jointly carry people's emotions.

### Conflicts of Interest

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