



The Existentialist Turn in Le Corbusier's Architectural Thought and its Social Significance

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Abstract. Social upheaval not only affects the economy, military and social structure, but also gives rise to new cultural and ideological theories. These theories not only influenced the direction of design, but also had a profound impact on design creation and development, and even changed people's lifestyles at that time. In architectural design, Le Corbusier is a highly representative designer. Le Corbusier's architectural ideas were not static. In the early days, there was a pursuit of functionality and rationality, an emphasis on modern industrial technology, and a preference for smooth and tidy walls. He put forward the concept of "housing machine", advocating the large-scale construction of residences in an industrialized way, believing that "the primary task of construction is to reduce costs, minimize components, and make houses mass-produced like machines to meet the needs of more people." He adheres to the principle that "the original form of architectural design is the form of beauty", praising simple geometric shapes. The modern architectural ideas promoted by Le Corbusier were once very popular and highly in line with the demands of the industrial age. However, with the rise of existentialism, Le Corbusier's creations were comprehensively influenced. Strong and exaggerated lines and colors began to appear in his works, even with a nearly hysterical and bizarre style. These changes were particularly reflected in his painting forms. This article aims to analyze the influence and transformation of existentialism on Le Corbusier's architectural design, and explore the impact of different ideologies on design through his works.

Keywords: Existentialism, Architectural Design, Social Upheaval, Design Transformation

1 Introduction

Social upheaval not only affects the economy, military and social structure, but also gives rise to new cultural and ideological theories. These theories not only influenced the direction of design, but also had a profound impact on design creation and development, and even changed people's lifestyles at that time. In architectural design, Le Corbusier is a highly representative designer. Le Corbusier's architectural ideas were not static. In the early days, there was a pursuit of functionality and rationality, an emphasis on modern industrial technology, and a preference for smooth and tidy walls. He put

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2 Transformation of Painting Expression Forms

2.1 Before the Transformation

Le Corbusier (1923) once said, "Everyone knows I am an architect, but no one thinks I am an artist." In fact, I draw inspiration for architecture through painting. What I truly want to be is an architect... If my works have any meaning, it's all thanks to my mastermind behind the scenes – painting [3]." Since 1918, I have persisted in painting every day without interruption. I explore the mysteries and creativity of form in my paintings, just as an acrobat exercises to control his muscles every day. In the future, if people make any discoveries in my architectural works, they should attribute the most profound qualities to my private work - painting.

2.2 After the Transformation

In "Towards a New Architecture" published in 1923, Le Corbusier systematically expounded his aesthetic philosophy: "Architecture is the exquisite, correct and wise interpretation of the combination of volumes under light." Our eyes are born to see forms in the light. Light and shadow shape cubes, cones, spheres, cylinders and square cones, which are the best carriers of light, with clear, definite and unambiguous images. Therefore, they are forms of beauty, the most beautiful forms that are fully agreed upon by children, barbarians and metaphysicians. This is also the prerequisite of plastic arts." One of the reasons for Le Corbusier's significant transformation was that existentialism dominated the French intellectual circle at that time, and his thoughts underwent profound and subtle changes. Existentialism holds that reason makes people subject to it, leading to self-loss. On the contrary, sensibility and intuition can enable people to perceive their own existence. Existentialist theory provides many people with new design ideas and directions. The outstanding feature of Le Corbusier's architecture lies in his pursuit of form and sensibility.

3 What is Existentialism?

Existentialism was born against the backdrop of World War I. World War I marked the beginning of the prosperity of modernity in Europe and was also the start of wars triggered by territorial expansion. After the two World Wars, modernity achieved a high degree of development globally, bringing prosperity, but it also led humanity into the secular stage of history. At this time, although people had unprecedented rights, technology and civilization, they also discovered their own confusion after the great war.

- The core proposition of existentialism:
- 1. Respect individuality and freedom: People can shape and achieve themselves on the basis of their original existence, live a wonderful life, and thus have meaning.
 - 2. Existence precedes essence: View all things in the world in a completely emotional way.
 - 3. Human nature is created by people through their own choices rather than bestowed by nature.
 - 4. Everything is people-oriented.
 - 5. The Influence of Ideology on Design

Le Corbusier began to understand architecture from an aesthetic perspective, infusing his aesthetic passion into architectural design, exploring free organic forms, and pursuing the expressiveness of raw materials, especially the rough and primitive texture of the exterior walls, such as the unadorned rough concrete surface and the rough and heavy shape. He declared: "Houses are built for living in." It requires sufficient light, fresh air, clean floors and suitable furniture. There is no need to apply fiber mortar to imitate dusty stone walls, nor to have chandeliers weighing 100 kilograms and covered with fly droppings, or soft brocade armchairs, or even dormer Windows, as shown in table 1.

Table 1. Contrast between the smooth white facade of Villa Savoye and the textured béton brut of Unité d'Habitation

Feature	Early Representative: Villa Savoye	Late Representative: Unité d'Habitation
Primary Wall Material	White plaster, glass curtain walls	Raw concrete (with formwork impressions retained)
Surface Treatment	Smooth, flat, refined	Coarse, heavy, retaining construction traces
Aesthetic Pursuit	Universality, rationality, machine-like precision	Individuality, sensibility, authenticity and power of material

Construction Period	~2 years (1929-1931)	~5 years (1947-1952), significantly extended due to new techniques and material expression requirements.
Cost Consideration	Aimed to reduce costs through industrialization	Unit cost increased due to special formwork techniques and concrete expression demands, but aimed to reduce overall social cost through large-scale integration.

4 Ironman Residences and Villa Apartments

Table 2. Early Period & Late Period

Feature	Early Period: Villa Savoye (1929-31)	Late Period: Unité d'Habitation, Marseille (1947-52)
Primary Material	White plaster, glass, steel frame	Raw concrete (Béton Brut)
Surface Treatment	Smooth, precise, machine-finished	Coarse, heavy, formwork traces intentionally left
Aesthetic Goal	Universal rationality, machine ideal	Individuality, material authenticity, emotional weight
Construction Time	~2 years	~5 years (complex formwork & new techniques)
Scale / Capacity	Single family unit	337 apartments (c. 1,600 residents)
Key Metric	Pilotis raise the house 5 meters off the ground	The entire ground level (pilotis) is a vast, 5-meter-high communal space

Between 1920 and 1922, Le Corbusier developed the "Domino" concept into the "Iron Man House". Like the Domino House, the Snowman House can also be mass-produced, but it has a greater depth, consisting of only one bay, supported by solid walls on both sides, with a tall living room spanning two floors. The top floor is a children's bedroom, and there is an open-air garden at the front of the flat roof. In 1922, Le Corbusier believed that the "Iron Man House" scheme met the three major health demands of housing for sunlight, air and greenery. Beauty lies in proportion, as he pointed out: "Proportion does not ask what the owner wants, but what the architect wants." Only when the soul is satisfied will it be touched, and what has been calculated can satisfy the soul. The multi-storey form of the "Iron Man House" can be composed of apartments [4]. In 1922, Le Corbusier proposed what was called the "villa apartment". The multi-storey apartment consists of a series of standard units, each with two floors and an open garden

balcony. The building is also equipped with various public service facilities such as shops, resembling an independent small town. He calls it a "residential unit". In the urban design of Algiers, Le Corbusier proposed a new type of apartment. Instead of setting a specific shape for each household, each family was allowed to build their own residence within a standard space of 4.5 meters. The only difference between this kind of residence and traditional villas is that they are stacked in the air rather than spread out on the ground. When he couldn't find developers to build huge apartments, Le Corbusier decided to settle for the second best option and try some smaller units - which he called "biological units". From the reinforced concrete frame form of the "Domino House" to the "Villa Apartment" proposed in 1922, the change in design can be clearly felt. Le Corbusier began to sensitively consider the impact of air, sunlight and greenery in housing on health, and even emphasized the freedom of construction rather than specific shapes in "apartments". This indicates that his thinking was influenced by existentialism, and he began to respect human individuality and freedom, believing that people can shape and achieve themselves on the basis of their original existence, and live a meaningful life, as shown in table 2.

5 "Glorious City": Everything is People-oriented

The Villa Savoye, designed from 1929 to 1931, fully embodies the exemplary five elements of Le Corbusier's new architecture. Meanwhile, this villa is also the final example of the modern architectural form of "sky villa" that he summarized. In the Four Rules of Composition, he took his own works as examples to summarize the four possible forms and characteristics of the sky villa:

The first form employs cumulative composition, such as the Villa Laroche Jeannare in 1923, which generates different shapes and Spaces based on actual needs and combines them according to certain requirements. The plane can be a free L shape, "the most convenient, colorful and dynamic type".

The second form, such as the Stein Villa, has an exterior resembling a cube and can be freely arranged inside.

The third form, such as his residence in Stuttgart, is a compromise between the first and second, featuring a rigid exterior frame combined with free-flowing Spaces.

The Villa Savoye represents the fourth form and is a compromise between the first and second, but it cuts parts from the cube to unify ideals and functions. From the perspective of architecture enthusiasts and art connoisseurs, Villa Savoye is indeed as beautiful as a delicate sculpture. Le Corbusier believed that apart from fresh air, abundant sunlight, green lawns, fit bodies, expressways and Titanic-style room service, people could also satisfy their emotional needs by admiring such beautiful and sculptural buildings. From the Domino House to the Ironman House, and then to the Villa apartments, from the Cook House to the Savoye House, Le Corbusier's ultimate goal was to create a modern city that was different from traditional cities and could adapt to the industrial age and production methods. He called it the "Shining City". In his 1933 book of the same name, Le Corbusier described the ultimate appearance of his ideal "radiant city": a city that completely eliminates the traditional concepts of blocks, streets and

courtyards. Residential towers of 12 to 15 floors weave through the city in a serpentine pattern. The expressway is in a grid structure, with a distance of 400 meters between each other, and only a few pass through. All the intersections are three-dimensional. A peninsula parking lot is set up every 100 meters along the expressway, directly connected to the residential buildings. From the parking lot, you can take the elevator directly to the corridor-style streets inside the residential building. These internal passages connect the residences. The residential building is composed of basic living units, each serving 2,700 residents. Each unit is equipped with a variety of public services directly related to family life: a community center, a nursery, a kindergarten, open Spaces in the park, and a primary school within the park. There is also a special public service center in the residential building, which adopts a collective business model to uniformly purchase daily necessities. Restaurants, shops and barber shops are all available, providing meticulous daily activities for community residents, just like the ocean-going oil tanker Titanic, as shown in table 3.

Table 3. Key Quantitative Proposals in the "Radiant City" Plan

Urban Element	Le Corbusier's Proposal (Quantitative)	Social Intention
Residential Unit	Cruciform towers, 50 stories high, set 200-400 meters apart.	Free up 95% of the ground for parks and circulation.
Density	1,200 inhabitants per hectare.	Create high-density living without overcrowding.
Transportation	Multi-level circulation: roads for cars (at grade), pedestrian paths (above grade).	Achieve 100% separation of vehicular and pedestrian traffic.
Green Space	100% of the ground level dedicated to green space and pedestrian use.	Provide ample sunlight, air, and recreation for all.
Apartment Design	Standardized "Citrohan" houses, mass-produced.	Reduce costs by 75% through industrial production.

All the ground floors of the residential buildings are completely raised. The expressways are all built at a height of 5 meters. 100% of the ground floors are reserved for pedestrians and green Spaces, or precisely 112%, because the roofs of the residential buildings are all green and paved with sand. The office and commercial areas are separated from the residential areas and connected by expressways. The 60-story office tower is 400 meters apart, connected to the expressway on all sides. The ground floor is raised, and the ground and roof are reserved for green Spaces and beaches. The factory area is located in the opposite direction of the commercial district. The university and the stadium are located at the far end of another axis, far from the city. All of these are strictly classified by function and connected by elevated expressways, ground and

underground railways. Le Corbusier spared no effort in promoting his "Radiant Cities", designing for major cities around the world such as Paris, Rio de Janeiro and Algiers, and clearing away what he saw as overly crowded and tiresome neighborhoods and streets. He also participated in the international competition at the headquarters of the League of Nations in Geneva, Switzerland, and put forward the same design concept [5] [6]. However, Le Corbusier's proposals were not adopted for various reasons. The simplest reason given by the League of Nations for rejection was that the ink used by Le Corbusier in his drawings did not meet the standards. Le Corbusier found it hard to understand. Before his death in 1964, he still couldn't understand those who rejected and criticized his "Radiant City" plan: "You unfortunate gentlemen, in these moments when you spit at me, have you ever thought that these plans are the work of someone who cares about the world and peace?" He devoted his entire life to serving his "human brothers" and regarded them as his own children. For this reason, the more correct he is, the more he will disrupt others' habitual ways of thinking or thinking [7].

6 Le Corbusier's Design Perception and Problems

It is undeniable that between the lines of "Radiant City" and throughout Le Corbusier's life, there is a deep love for the world. He is eager to eliminate the chaos, congestion, filth, disorder and inefficiency of modern cities, with a great ideal in his heart, hoping to achieve it overnight. He is like a parent who hopes his children will be perfect, wanting to provide them with the best school, teachers, learning equipment, the safest and fastest way of commuting, allowing them to fully exercise and shield them from all things that might corrode their minds and wear down their wills.

7 The Limitations of Design Perception

Le Corbusier regarded all the paths he opposed as bad, and only the paths he described were good. He believes that only in this way can children grow up healthily and meet the challenges of work. Influenced by existentialism, he centered on people, respected their freedom and individuality, and defined people's lifestyles with an emotional way of thinking. However, he did not truly understand people's real needs, nor did he consider whether the environment and background at that time were suitable for people's needs [10]. In Le Corbusier's world, people live to eat, go to work quickly, work efficiently, exercise in the park after work, sleep well at home, and then day after day. In his view, a city is a "living space", involving people's physical and emotional needs. "Sound insulation", "sunlight", "consumption of pure air", "time spent at home overcoming fatigue" and "recovery of physical strength and energy" are physiological needs. As for emotional needs, he believes there are only two: "visual drama and architecture". As long as the visual factors he regards as "incongruity" are eliminated, people's emotional needs can be met. He regards everything in urban life as functional [8].

8 Problems Under the Influence of Existentialism

Le Corbusier's greatest problem lies in his neglect of individual existence, emotions, differences and choices. He believes that as long as one pursues noble goals, noble results will be produced. He did not examine people's needs and desires, but relied on his own experience and the influence of existentialist theory. Existence precedes essence, which means that a person must exist first before they can create themselves. But existence does not create him; he creates himself in the process of existence. Sartre said, "To say that existence precedes essence means that a person first exists, appears, and takes the stage, and only then defines himself.[9]" From the perspective of existentialists, if a person cannot be defined, it is because he was nothing at first, but later became something and shaped himself into the person he wanted to be... Man is merely the product of his own self-shaping. Human nature is created by people through their own choices rather than bestowed by nature. There are bound to be differences among people. Blindly insisting on equality for all will inevitably lead to inequality. A healthy society does not seek absolute equality among people, but rather builds a society that encourages upward mobility and can achieve this goal, rather than creating a new society where everyone is the same overnight. Because such a society must be based on the violent deprivation of some people against others. In Le Corbusier's glorious city, he envisioned providing spacious housing for everyone, but did he consider the process of achieving this goal? He wants to wipe out all the slums and the old order overnight and establish a new society where everyone is equal. But he doesn't know or deliberately doesn't want to know what price will be paid to achieve this goal.

9 St. Pierre's Church: Limitations in the Context of The Times

Le Corbusier is indeed an architect worthy of study by later generations. To this day, many designers and architects still imitate and learn from his works. However, it must be admitted that his later works and thoughts were overly personal and subjective. His designs and works were often difficult to realize because they did not conform to the background of the time, such as the recently completed Church of Saint-Pierre. The Church of Saint-Pierre was Le Corbusier's last design, or at least one of his posthumous works [11]. The design adopts a conical light dome, boldly attempting to open up the sacred space to the sky. In later works, the asymmetrical dome points towards the sky like a telescope. The altar space is separated from the church's sloping floor by a base. Believers sit on the sloping and raised seats, as if floating in the air. Based on this unusual spatial and lighting effects, the architecture of this church is inspiring. In fact, most of Le Corbusier's works were very difficult to realize, taking several years from design to completion. During the design process, he insisted on retaining the geometric shape of the spiral ramp and the structure of the conical shell, preserving the concept in a spiral ascending manner. At the same time, based on his unremitting research on light art, he conceived the continuous "spiral light bands" in the "Nebula", which brought a bright spot to the originally dim church [12]. The experience of entering a church is

more diverse, giving people time for reverie. However, at that time, the building could not be continued due to its excessively high cost and was not completed until 2006. At that time, such buildings could not be constructed not only because the technology was not mature, but also because the ideology at that time did not allow it. After the war, people had no interest in building churches and only focused on living and housing construction. From Le Corbusier's discussion on the influence and development of existentialism, we can find that even in different social contexts, different ideologies can affect people's thoughts and development, and people cannot exist independently of the social environment. The importance of placing people at the center while neglecting the environment cannot be emphasized in isolation. People should conform to the order of nature, the world and even the universe, rather than changing it based on their own thoughts. Man is the master of the world, but he cannot artificially change the laws and order of nature. Just as the renowned ancient Chinese thinker Zhuangzi said: "The unity of heaven and man [13]."

10 Conclusion

Shigeru Ban uses lightweight materials to reduce the damage caused by natural disasters. It is obvious that he is adapting to the laws of nature in different ways rather than changing or even rebuilding them. Especially the designs of architects, when they become increasingly harmonious with nature, are becoming more and more beneficial to humanity. Le Corbusier created his works within his ideology, and it is undeniable that his ideas have benefited and influenced humanity to this day. He proposed that each residential unit should be equipped with a variety of public services directly related to family life: community centers, nurseries, kindergartens, open Spaces in parks and primary schools. There is also a special public service center in the residential building, which adopts a collective business model to uniformly purchase daily necessities. Restaurants, shops and barber shops are all available, providing meticulous daily activities for community residents, just like the ocean-going oil tanker Titanic. Nowadays, these ideas are coming true. It is hard to deny that Le Corbusier's great design was not fully realized and even seemed like a fairy tale. In the context of the environment and society at that time, even though Shigeru Ban's current designs complement the natural and social environments, they still need to be re-examined a few years later. The design philosophy of Le Corbusier and Shigeru Ban reminds us that architecture is not only a combination of form and function, but also a profound response to the needs of society, nature and humanity. While pursuing their ideals, architects need to maintain sensitivity and respect for the real environment in order to truly realize the social value of their designs.

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