doi.org/10.62683/SINARG2025.077

#### Review paper

# THE INFLUENCE OF LE CORBUSIER ON THE INTERIORS OF GREEK MODERNISM

# Dimitris Grigoriadis<sup>1</sup>, Dimitris Grigoriou<sup>2</sup>, Maria Giannikaki<sup>3</sup>, Georgios Tsiorolis<sup>4</sup>

#### Abstract

Le Corbusier, a leading figure of modern architecture, introduced revolutionary principles that redefined spatial composition and living environments. His work significantly influenced Greek architects during both the interwar and postwar periods, shaping the evolution of Modern Greek architecture. This study explores how Le Corbusier's design principles—such as the Domino system, open floor plans, pilotis, elongated horizontal windows, and the emphasis on natural light and ventilation—were integrated into the interiors of Greek modern buildings from the 1930s to the 1970s. The research employs a qualitative methodology, combining bibliographic analysis and case studies of key Greek architects, including Polivios Michailidis, Thoukididis Valentis, Aristomenis Provelengios, and Nikos Valsamakis. Their designs not only embraced modern construction techniques but also proposed a new way of living, departing from the traditional and neoclassical house. The Esprit Nouveau ideology became a fundamental reference, influencing the spatial organization of interiors. Comparative analysis highlights how Le Corbusier's concepts were adapted to the Greek architectural context. The study examines how materiality, structural expression, and the interplay between interior and exterior spaces evolved under his influence. Findings indicate that Le Corbusier's influence on Greek modernist interiors was not limited to aesthetic choices but extended to fundamental spatial principles. His renowned five points of architecture and material preferences shaped the identity of interior spaces, emphasizing spatial fluidity, structured compositions with integrated furnishings, expressive materiality, selectively applied bold colors, and industrial-style movable furnishings. Greek architects of the modern period who drew inspiration from his work adopted these principles in their own projects, reshaping domestic spaces and redefining the visual language of modern living in Greece. This research highlights how global architectural movements are locally reinterpreted, reinforcing modernism's lasting impact on Greece's built environment.

**Key words:** Le Corbusier, Greek Modernism, Interior Architecture, Spatial Composition, Materiality

<sup>&</sup>lt;sup>1</sup> PhD Candidate, School of Architecture – Technical University of Crete, Architectural Engineer (B.Arch + M.Eng), Environmental Scientist (B.Sc.), M.Sc. Energy, Environment and Buildings, Greece, dimit.grigoriadis@gmail.com, ORCID N/A

<sup>&</sup>lt;sup>2</sup> PhD Candidate, School of Architecture – Technical University of Crete, Architectural Engineer (B.Arch + M.Eng), Art Historian (M.A.), Greece, dgrigoriou@tuc.gr, ORCID N/A

<sup>&</sup>lt;sup>3</sup> Architectural Engineer (B.Arch + M.Eng), Civil Engineer (B.Eng + M.Eng), Greece, mgiannikaki@tuc.gr, ORCID N/A

<sup>&</sup>lt;sup>4</sup> Architectural Engineer (B.Arch + M.Eng), Greece, gtsiorolis@tuc.gr, ORCID N/A

## 1. INTRODUCTION

The architectural discourse of the 20<sup>th</sup> century was profoundly reshaped by figures whose visions transcended national boundaries. Among them, Le Corbusier stands out as a catalytic force, challenging established notions of form, space, and habitation. His approach proposed not merely a new architectural style, but a fundamentally new way of living — prioritizing functionality, natural light, and spatial openness — which initiated a paradigmatic shift in modern design thinking.

In Greece, the interwar period provided fertile ground for the reception of modernist ideas. A group of pioneering architects engaged with international architectural movements, including Le Corbusier's innovations, while negotiating the persistence of eclectic and neoclassical forms that continued to characterize urban environments, particularly in Athens. Postwar reconstruction and the rapid process of urbanization created new imperatives. The urgent demand for mass housing and the emergence of a new urban middle class aligned with the principles of modernism, offering a broader platform for its application. Within this context, Le Corbusier's theories and built works provided a model for addressing emerging social and spatial challenges.

Moreover, his exposure to Mediterranean landscapes — especially through his travels in Greece — deeply informed his architectural vocabulary [1]. The whitewashed cubic volumes, semi-outdoor transitional spaces, and spatial fluidity he observed would later become hallmarks of his work. Thus, the influence of Le Corbusier returned to Greece in a cycle of mutual exchange: having drawn inspiration from its landscapes and vernacular architecture, Greek architects in turn reinterpreted his modernist principles through a local lens.

This study investigates the impact of Le Corbusier's compositional principles on the interiors of Greek modernist architecture from the 1930s to the 1970s. It focuses particularly on how the open plan, the integration of natural light and materials, and the articulation of fixed and movable furnishings were reflected in the design logic and spatial qualities of modern Greek interiors. Through case studies of key Greek modernist architects, the research examines how Le Corbusier's principles were interpreted and adapted to fit the local cultural, climatic, and urban conditions.

The study is guided by the following research guestions:

- What are the defining characteristics of Le Corbusier's design phases, and how did they influence Greek architectural production between 1930 and 1970?
- · How was the modern lifestyle proposed by Le Corbusier (L'Esprit Nouveau) expressed in selected works by Greek architects?
- · In what ways did the application of Le Corbusier's compositional principles redefine the spatial qualities of Greek modernist interiors?

#### 2. METHODOLOGY

The material required for the composition and completion of this study was collected through bibliographic research, fieldwork, press research, online sources, as well as through the analysis of recorded interviews and presentations.

The methodology adopted combines comparative and interpretive approaches, aiming to investigate how Le Corbusier's ideas were assimilated and reinterpreted within the Greek

architectural context. The paper examines the influence of Le Corbusier on selected works of Greek modernist architects, with a particular focus on interior design.

The research is structured around two main chronological periods: the interwar period and the postwar period. These two phases correspond to distinct stages in Le Corbusier's work, shaped by the profound social, political, and economic transformations brought about by the two World Wars of the 20<sup>th</sup> century.

The structure of the research is organized into four main units, as follows:

- Interwar Period
  - Le Corbusier during the Interwar Period
  - The influence of Le Corbusier on Greek Architects during the Interwar Period
- Postwar Period
  - Le Corbusier during the Postwar Period
  - The influence of Le Corbusier on Greek Architects during the Postwar Period

# 3. FINDINGS (RESULTS)

### 3.1. Interwar Period

# 3.1.1. Le Corbusier during the Interwar Period

During the interwar period, the architect Le Corbusier, a leading figure of the modernist movement, through his explorations and architectural applications, contributed decisively to the development of the spatial experiments that defined the modern architectural vocabulary. Le Corbusier (1887–1965), inspired by the world of machines, sought the "Esprit Nouveau", reinterpreted the classical ideal of the Parthenon [2], and placed his trust in avant-garde industrial materials such as reinforced concrete and metal. His five architectural principles—pilotis, free floor plan, horizontal ribbon windows, roof garden, free façade—along with the Domino system, and the industrial-style furniture he designed, formed the architectural envelope and defined the spatial qualities of his interior compositions [3].

More specifically, Le Corbusier's interiors are characterized by simplicity and economy of means, with a strong emphasis on hygiene (light and ventilation). The absence of ornamentation, the careful selection of color on specific walls and elements, the predominance of white, metal railings, elongated horizontal openings with metallic frames, and built-in furniture of industrial aesthetic, often designed by Le Corbusier himself, convey a strong sense of rational order. Additional elements include the exposed structural frame, the meticulous integration of mechanical systems (such as radiators), double-height spaces, ramps, and sculptural staircases—all of which emphasize the plasticity of the new structural material, such as reinforced concrete. Collectively, these components defined a new kind of interior spatial experience.

These principles were first publicly introduced at the International Exhibition of Modern Decorative and Industrial Arts in Paris, with the Pavilion of L'Esprit Nouveau, and were later refined in the iconic Villa Savoye [4]. Figures 1 present these two groundbreaking works, where Le Corbusier illustrates and proposes a new model for modern living through an almost scenographic spatial expression.





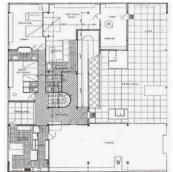
Figure 1 Left: Interior view of the Pavilion of L'Esprit Nouveau, source: www.archiweb.cz. Right: Interior space of Villa Savoye, source: www.archdaily.com

# 3.1.2 The influence of Le Corbusier on Greek architects during the Interwar Period

The interwar years marked a period of significant transformation in the architectural production of modern Athens. A crucial factor in this shift was the rapid dissemination of Modernism across Europe, which reflected the optimistic and assertive spirit of an emerging middle class and, gradually, influenced the lower-middle class of society as well.

Greek architects such as Stamos Papadakis, Kyriakos Panagiotakos, Patroklos Karantinos, Thoukididis Valentis, Polivios Michailidis, Aristotelis Zachos, Vasilios Douras, and Konstantinos Kitsikis, among many others, drew inspiration from the Modernist movement and found fertile ground in Athens for applying its principles. Their works expressed modernity not only through external form but also through internal spatial transformations that redefined the functional layout of space.

A particularly representative example of an Athenian apartment building that fully embodies the formal characteristics and compositional principles of Le Corbusier is the one designed in 1933 by Polivios Michailidis and Thoukididis Valentis at Stournari Street [5]. In this project, the architects employed Le Corbusier's renowned domino system to create freely articulated interiors through the use of open floor plans. Additionally, by setting back the structural columns from the external walls, they were able to compose freely designed façades with continuous horizontal window bands of varying lengths. This structural technique directly recalls numerous works by Le Corbusier from the same period, such as the Villa Cook and Villa Stein, where the same compositional principles are evident.



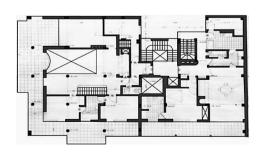


Figure 2: Left: Floor plan of Villa Savoye, source: Ruegg A., 1999, p.24. Right: Fifth floor plan of the Michailidis-Valentis apartment building, source: Xirokostas M. et al., 2016, p.37.



Figure 3 Left: Interior views of Villa Savoye, source: www.archdaily.com. Right: Interior views of the Michailidis-Valentis apartment building, source: Xirokostas M. et al., 2016, p.34.

The large, elongated openings that allowed for ample and unobstructed interior ventilation and lighting—both essential for hygienic living—were sealed with sliding metal frames, which at the time represented a significant innovation compared to traditional construction techniques. These metal-framed openings, widely employed by Le Corbusier, highlight the structural possibilities of metal and glass in modern architecture.

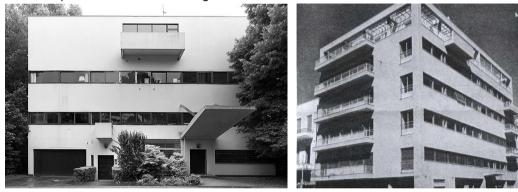


Figure 4: Left: Villa Stein, source: www.divisare.com. Right: Apartment building by Michailidis and Valentis, source: Fillipidis, 2001, p. 99.

Another of Le Corbusier's five points of architecture that can be identified in the work of Michailidis and Valentis is the accessible roof terrace. A previously non-utilitarian space is transformed into an urban escape and a vital extension of the privileged penthouse apartment, establishing a unique relationship between the resident and the vast scale of the urban skyline and landscape.

Regarding the interior of the residence, there is once again a direct reference to Le Corbusier's work, notably through the creation of an interior atrium and the incorporation of a characteristic curved window, which is almost identical to that of the Villa Cook. The key difference lies in the placement of the openings along the curved surface [6], adapting Le Corbusier's original concept to the specific spatial conditions of the project.





Figure 5: Left: Roof terrace of the Michailidis and Valentis apartment building, source: Xirokostas M et.al, 2016, p.16, p.396. Right: Roof terrace of Villa Savoye, source: www.archdaily.com.





Figure 6: Left: The curved window of Villa Cook, source: www.fondationlecorbusier.fr. Right: The curved window of the Michailidis and Valentis apartment building, source: Fessa E., 2009, p.396).

Finally, the furniture designed by the two architects, featuring simple and clean lines in metal and leather, corresponds directly to that of Le Corbusier [7]. It reveals their intention to shape a functional space, stripped of all superfluous elements. Beyond the formal similarities with the modernist movement, these interiors embody its essence: a new way of living, grounded in the principles of modernity.

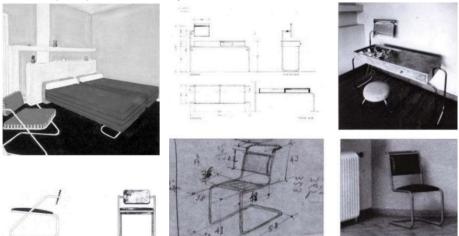


Figure 7: Photographs and drawings of the fixed and movable furnishings of the apartment building by Michailidis and Valentis. Source: Xirokostas M et.al, 2016, p.21.

As Professor Panagiotis Tournikiotis characteristically notes:

"Michailidis and Valentis design an architecture that simultaneously proposes a way of life — a different way of life, far removed from the traditional neoclassical house. A lifestyle linked to new technologies, to the logic of communal living, to vertical habitation, and to the conquest of the rooftop as a space for summer outdoor activities and, at the same time, as a platform for viewing the broader environment." [8]

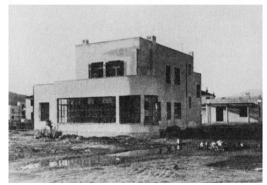
In the same year, architect Stamos Papadakis, in the design of a summer house in Glyfada, also reveals strong influences from Le Corbusier in both its external form and its interior spaces. A free structural grid allows the floor plan to unfold with flexibility, while curved elements appear both in the shell and in the terrace, echoing the volumetric gestures of Le Corbusier [9]. Prominent features include large elongated rectangular windows, which, although interrupted by structural columns, maintain their horizontal emphasis and significantly shape the interior quality by allowing unobstructed penetration of natural light. Metal is prominently used, particularly in the ground-floor railings, and the overall composition is dominated by the use of white, in direct reference to modernist aesthetic principles.





Figure 8: Various views of the Fakidis Residence in Glyfada, Source: www.gradreview.gr

Aristotelis Zachos, despite his commitment to the "values of Greek vernacular architecture", appears to have been well acquainted with the modern vocabulary of Le Corbusier, as demonstrated in 1934 with the design of the residence of Petichakis in Psychiko. Although at first glance the association between this residence and Le Corbusier's works may not be immediately evident, the building's volumetric composition of pure geometric forms, as well as the circular design of the greenhouse volume featuring large metal-framed glazing, clearly reflect modernist principles. Furthermore, the use of white throughout the composition once again refers Le Corbusier's architectural language.



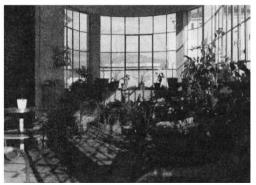


Figure 9: Left: Exterior view of the Petichakis Residence. Right: Interior view, source: www.archetype.gr

In 1933, Michailidis and Valentis designed a three-story residence for Stathakis at Drosopoulou Street, which, like the apartment building in Stournari Street, exhibits multiple similarities with Le Corbusier's works from the same period. Notable features include elongated horizontal openings on the ground and first floors, ensuring adequate sunlight penetration, as well as the setback of structural columns along the façade to allow for its free design. Metal elements are widely used: the railings on the recessed third floor, the pergola covering the semi-outdoor space, and all the window frames throughout the residence are made of metal. The fixed and movable furnishings inside the house also follow simple, clean lines, consistent with modernist principles. Particularly notable is the treatment of the storage unit and the fireplace, which directly reference similar elements found in Le Corbusier's Villa Savoye and Villa La Roche. Simple geometries, wooden detailing, and the use of circular columns further emphasize the building's conceptual and formal affinities with Le Corbusier's design vocabulary.







Figure 10: Left and center: Façade and interior view of the Stathakis residence, source: www.gradreview.gr. Right: Fireplace of Villa Savoye, source: www.cargocollective.com

## 3.2 Postwar Period

# 3.2.1. Le Corbusier during the Postwar Period

In the postwar years, Le Corbusier, influenced by the rapid changes and upheavals in society, economy, and politics, shifted his trajectory and adopted a new architectural vocabulary. Although this new vocabulary did not dramatically deviate from that of his earlier period, it introduced distinct typological and morphological differences. The plastered surfaces that previously covered the interiors and exteriors of his interwar projects gave way to the raw, grey concrete left exposed exactly as it emerged from the casting and curing process [10]. This material, known as béton brut, signaled a reduction in construction costs and eliminated the need for high-precision or specialized technologies.

Despite the material shift towards exposed concrete, bright colors did not disappear from Le Corbusier's work during the postwar period. Instead, he applied them extensively, directly onto the raw concrete surfaces. A characteristic example from this era is the Unité d'Habitation in Marseille, one of his most significant experiments addressing the housing crisis that followed the devastation of the Second World War. Through this project, Le

Corbusier sought to provide low-cost yet high-quality housing for a large number of low-income residents. Drawing upon the experience of his earlier work, he designed a residential building capable of accommodating a significant population, while aiming to secure dignified and quality living conditions for all inhabitants.

# 3.2.2. The influence of Le Corbusier on Greek architects during the Postwar Period

During this period, Athens underwent a complete transformation. The aftermath of the Second World War, combined with the massive wave of urban migration following the Greek Civil War, created an urgent need for mass housing for a large population with limited financial means. This demand triggered a building surge, which found theoretical and practical support in Le Corbusier's experiments with fast, economical construction methods that ensured healthy living conditions. The application of his principles became a pressing necessity, with Greek architects called upon to adapt these ideas to the specificities of Greek identity and Mediterranean climatic conditions.

A representative example of postwar architecture following this direction is the apartment building at Asyrmatos, near the Philopappou Hill ring road in Athens, designed by Elli Vasilikioti in 1967, as part of the studies conducted by the Housing Service of the Ministry of Public Works. This building strongly recalls Le Corbusier's Unité d'Habitation, both in terms of the needs it addresses — housing a large number of residents in compact apartments — and in its formal expression. The façade is articulated through a grid system created by the horizontal slabs of the balconies and the vertical structural elements. These continuous balconies functionally connect to the interior spaces of the apartments, acting as extensions of the living areas and effectively blurring the boundaries between interior and exterior. Moreover, the building incorporates Le Corbusier's concept of the accessible rooftop terrace, which, as in the Unité d'Habitation, becomes a communal space for social interaction and outdoor activities, providing sunlight and a venue for building interpersonal relationships among the residents. Finally, the pilotis system is also employed, raising the mass of the building and freeing the ground level for circulation and collective use.



Figure 11: Apartment building at Asyrmatos, source: www.doma.archi.

In a similar manner, in the apartment building designed by architect Nikos Valsamakis on Semitelou Street in 1951, the façade is organized through a grid system of horizontal and vertical elements, integrated with the balconies that provide extension spaces for the residents — areas directly connected to the interiors of the apartments [11]. At the building's entrance, the use of natural materials such as stone and marble, along with the sculptural

treatment of space and the carefully chosen color palette, reflect Le Corbusier's efforts during this period to integrate elements of nature into architectural interiors.







Figure 12: Left: Façade of the apartment building on Semitelou Street. Center: View from the balcony. Right: The staircase, source: Valsamaki M., 2007, p.28-31.

In 1956, Aristomenis Provelengios designed the house and studio of the Spiteri couple on Kykladon Street in Kypseli, faithfully embracing modernist architectural principles. Clearly influenced by what Panagiotis Tournikiotis describes as the "Le Corbusian poetics" in his presentation for the architectural television program Urban Landscape (Astiko Topio), Provelengios shaped a space based on Le Corbusier's Modulor system, creating what he described as:

"An architectural exercise where everything has its own scale, its own precision, its own complexity — while remaining simple."

Tournikiotis continues:

"Exposed concrete, squared glass surfaces, and opaque reinforced planes. A three-dimensional space, free and fluid, with staircases weaving up and down like an Escher painting. It is not simply a modern building; it is a modernism endowed with a human scale — embracing size, imperfection, and unpredictability — traits of a human character rather than just technical features of a structure. Provelengios was deeply influenced by Le Corbusier, even before he worked at his office." [12]



Figure 13: Left: Façade of the Spiteri House and Studio, source: www.karouzo.com. Center: The staircase, source: www.ek-mag.com. Right: View of the upper level, source: www.archaiologia.gr

In 1967, architect Seva Karakosta designed her own residence in Old Psychiko, Athens. Although through the volumetric composition and the choice of materials — such as white plastered surfaces, Pentelic marble flooring (used both indoors and outdoors), and low stone retaining walls — she sought to infuse the project with a sense of Greek identity, the interior spaces display strong affinities with Le Corbusier's work. Exposed concrete surfaces, sometimes painted in grey or bold colors, the absence of visible beams, the attachment of

fixed furniture directly onto the walls in correlation with the grid system of the wooden window frames, and the integration of heating systems as compositional elements are all features that clearly reveal the influence of the Swiss architect. Particular attention was also given to establishing a strong relationship with nature and ensuring ample natural lighting, both fundamental principles in Le Corbusier's own projects. It is also worth noting that during the postwar period, Le Corbusier's renewed focus on the natural dimension in architecture extended to the use of natural materials within interiors — such as wood, stone, and marble — as well as the aesthetic value he attributed to exposed concrete, perceived as a "manmade stone", thus reinforcing a sense of material authenticity.







Figure 14: Interior views of the Karakosta residence, source: www.archetype.gr









Figure 15: Left: Interior views from Villa Shodhan. Right: Interior views from Maisons Jaoul, source: www.en.wikiarquitectura.com

### 4. DISCUSSION

Reviewing the examples presented, it becomes clear that the architecture introduced by Le Corbusier — along with the new way of life he proposed — could not leave Greece unaffected, a country from which he drew essential elements to formulate his own architectural vocabulary. Greek architects of the Modernist movement, whether through direct collaboration with Le Corbusier in his atelier or indirectly through the study of his works, identified principles that they believed could be successfully adapted to Greek conditions.

During the interwar era, examples such as the apartment building at Stournari Street by Michailidis and Valentis demonstrate an almost complete adoption of Le Corbusier's interwar design principles. Their work also reflects a deep engagement with the new lifestyle proposed through *L'Esprit Nouveau*. In the postwar period, Le Corbusier's new spatial explorations and expressive means — such as the use of exposed concrete, often colored, and the redefinition of the relationship between architecture and nature through light and materials — deeply influenced Greek architects. These impacts are clearly observable in the examples analyzed in the Findings section.

Concerning interior spaces, Le Corbusier was not an architect who meticulously designed every furnishing detail. Instead, it was his broader compositional principles that determined

the spatial quality of his works — including his famous five points of architecture and his material choices. Plasticity, structured interior layouts with integrated furniture, material expressiveness, selectively applied bold colors, and movable furnishings of industrial aesthetic are the key characteristics that define the interiors of his projects — features that Greek modernist architects consciously incorporated into their own designs.

## 5. CONCLUSION

In conclusion, the influence of Le Corbusier on Greek modernist interiors was both profound and multifaceted. His principles, initially adapted selectively during the interwar period, evolved into fundamental guidelines for postwar architectural practice in Greece. By integrating spatial plasticity, the free floor plan, natural light, and material honesty, Greek architects not only reinterpreted Le Corbusier's ideas but also rooted them within the specificities of the Greek context — climate, culture, and urban needs.

This influence was particularly evident in interior spaces, where a new approach to domestic spatial organization and material expression emerged — informed by the ideals of modernism. Ultimately, Le Corbusier's vision contributed to redefining the living environment in Greece, forging a bridge between international modernism and local architectural expression.

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