

Was Eileen Gray's Interpretation of Modern Architecture Influenced by her Gender-Specific Experience?

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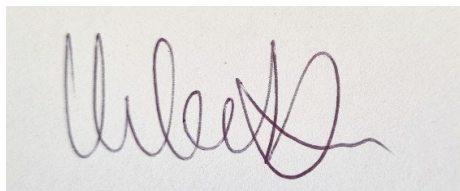
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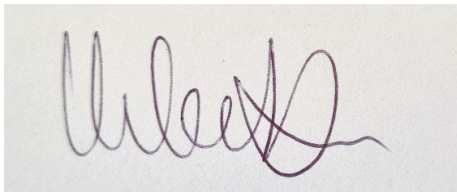
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Abstract

This dissertation explores the correlation between gender and architectural achievement, through the lens of Eileen Gray's career, asking the question: "Was Eileen Gray's interpretation of modern architecture influenced by her gender-specific experience?"

Situated within the context of the early 20th-century modern movement, this study seeks to elucidate Gray's contribution to architecture, and how this was both constrained and enriched by the social expectations of the day. This critique is coupled with a review of societal constraints, historical biases, and the professional landscape that shaped women's participation in architecture. Through this examination, the dissertation reveals the compounded challenges women faced, highlighting how Gray's gender-specific experiences influenced her work with distinct innovations and perspectives.

In order to explore these gender specific perspectives, the philosophical perspectives and architectural methods of Gray and Le Corbusier are compared and contrasted. This involves case studies and a comparative analysis of Le Corbusier's Villa Savoye and Gray's E1027. While Gray operated within what is generally regarded as an architectural language developed by Le Corbusier, my research seeks to evidence that her design method was distinct from his, primarily because her design development was channelled along lines seen as both appropriate to, and available to, women at the time.

The research implements a varied methodology, incorporating literature review, biographical analysis, and archival research, to explore Gray's journey and her distinct approach to modernism. An empirical review of publications reveals a significant growth in scholarly interest in Gray's work in recent decades, despite her achievements being largely overlooked during her lifetime. This shift in recognition highlights the evolving understanding of women's roles in architectural history and modernism.

This dissertation argues that Gray's gender-specific experiences, combined with her desire to design with meaning and consideration, shaped her authentic architectural expression. Despite constraints, Gray's journey from the decorative arts to architecture allowed her to offer her own version of modernism, infused with considerations of interiority, detail, and human need. This investigation contributes to the broader discourse on gender, theory, and practice in modern architecture, advocating for a re-evaluation of the contributions of women to the field.

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I also extend sincere thanks to Dr Liz Walder, who first introduced me to the challenges women face within the field of architecture. This insight profoundly influenced my desire to explore and highlight the contributions of women who, despite often being overlooked, denied acclaim, or erased from because of their gender, have enriched the profession immeasurably. Liz's continual support and guidance has been invaluable, and I am immensely grateful for her advice and encouragement.

Finally, I wish to thank my partner, William Harrow, for inspiring and encouraging me to pursue higher education and a career that I love. His endless support, patience, and belief in me has empowered me to fully commit to this dissertation and my entire academic journey.

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Introduction

This dissertation explores the intricate relationship between gender-specific experiences and architectural achievement and recognition, with a particular focus on the work of Eileen Gray. Situated within the broader context of the early 20th-century modern movement, this study aims to explore the question: 'Was Eileen Gray's interpretation of modern architecture influenced by her gender-specific experience?'.

In addressing the central question of this study, the focus shifts to the historically under-acknowledged contributions of Eileen Gray. This oversight is emblematic of the broader gender biases that have saturated the field, making Gray's work an essential subject for examining how gender influences architectural design and recognition. Through a comparative analysis with Le Corbusier, whose contributions have been extensively documented, this research aims to illuminate Gray's distinct approach to modernism- a divergence shaped by her experiences as a woman in a predominantly male profession. This comparison is not intended to provide an exhaustive review of Corbusier's already well-documented architectural path, but to use his documented principles as a backdrop against which Gray's unique contributions and the impact of gender on her work can be critically assessed and finally given the recognition they deserve.

Key terms such as 'modern architecture', 'modernism' and 'gender-specific experience' are defined within the context of this research to ensure clarity and understanding. 'Modern architecture' refers to the architectural movement embracing abstraction, the use of new materials and technologies, and the rejection of historical styles. 'Modernism' is understood as a broad cultural movement that sought new ways of expression in the arts, including architecture, during the 20th century. 'Gender-specific experience' highlights the unique challenges and perspectives brought forth by one's gender in a professional and creative context. This also includes tactics like Gray's use of a male guise for the names of her businesses, illustrating how women navigated biases in a male-dominated world.

This research is focused on the early to mid-20th century, a period marked by significant shifts in social norms, technological advancements, and artistic expression. The literature review reveals a notable gap in the acknowledgment of the contributions of women to modernism, with a notable increase in scholarly interest in Gray's work emerging only in recent decades. Despite her significant contributions to the field, Gray's work was largely overlooked during her lifetime, receiving acclaim only in her later years and, more substantially, posthumously.

An empirical review of publications conducted as part of this research uncovered that articles related to Gray have grown by 295% over the last 10 years and by 3397% since 1990 (see tables in Appendix A). This surge in scholarly and critical attention contrasts with the scarcity of articles on Gray's work before and up until 1990, highlighting the belated yet growing recognition of her impact. This dissertation explores the factors contributing to this delayed acknowledgment, examining the social and professional prejudices that hindered Gray's immediate acclaim and exploring how her gender played a pivotal role in both the challenges she faced and the unique perspective she brought to modern architecture.

This dissertation examines the restrictive environment for women in architecture during the early 20th century, emphasising how societal expectations and professional barriers influenced the paths available to them. Despite these challenges, figures like Gray forged ahead, utilising alternative avenues such as furniture and interior design to express their design vision. This background establishes the foundation for the argument that Gray's gender-specific experiences were instrumental in shaping her unique contribution to modern architecture. Many key figures are mentioned throughout this dissertation; for further information about these individuals, please refer to the 'Brief Biographies' section in the Appendix B.

At the core of this dissertation is a comparative analysis of two important works in modern architecture: Gray's E. 1027 and Le Corbusier's Villa Savoye. This comparison is not only an exploration of architectural design but serves as an opportunity through which to examine how Gray, a woman, engaged with and reinterpreted the theoretical tenets established by Le Corbusier's principles, such as the 'Five Points of New Architecture,' are scrutinised, before exploring how she infused them with her distinct perspective, informed by her gender-specific experiences. This analysis goes beyond surface-level design elements to interrogate how Gray's interpretation of modernism is both a dialogue with and a departure from Le Corbusier's ideas, culminating in her own interpretation of modern architecture. Please note, I do leave some gaps in the layout of the text to align my comments with selected illustrations.

The analysis of E1027 and Villa Savoye, demonstrates how Gray's architectural expression embodies a blend of Corbusian influence and personal innovation. Her reworking of modernist principles not only showcases her architectural skill, but also reflects a deeper engagement with the theoretical foundations of modernism. This exploration shows Gray's contribution to the movement not as simple adaptation, but as a critical reinterpretation, thereby highlighting the crucial role of gender-specific experiences in shaping architectural creativity and

discourse. Through this perspective, this dissertation highlights the broader implications of Gray's work for understanding the overlap between gender, theory, and practice in modern architecture.

Methodology

This dissertation employed a varied approach to investigate the influence of gender-specific experiences on Eileen Gray's interpretation of modern architecture. The research methodologies included:

1. Literature review
2. Biographical analysis
3. Interviews with experts
4. Comparative analysis

1. Literature Review

An extensive review of academic literature formed the foundation of this research, including books, journal articles, and dissertations focusing on Eileen Gray and other key figures, such as Le Corbusier, during the same period, modernist architecture, and the role of gender in the design professions. This review aimed to contextualise Gray's work within the broader framework of modern architecture and to identify gaps in areas that have not been thoroughly explored, particularly regarding the intersection of gender and architectural practice.

2. Biographical Analysis

To gain deeper insights into Gray's personal and professional journey, a biographical analysis was conducted. This involved examining published biographies, letters, and personal documents, which provided valuable perspectives on her motivations, challenges, and the development of her unique architectural language. This analysis highlighted how Gray's experiences as a woman in a predominantly male field shaped her approach to design.

3. Analysis of Gender Constraints in Architectural Education

This research explored the gender constraints that limited women's access to architectural education and opportunities during Eileen Gray's era. By examining historical records and educational archives, the investigation explored the societal and institutional barriers women

encountered, including restricted educational routes and prevailing attitudes towards their professional capabilities. This analysis shed light on the external challenges Gray navigated, offering insights into her achievements against the backdrop of the broader struggle for women's entry into architecture.

4. Interviews with Experts

Initially, conducting an interview with the National Museum of Ireland's curator specialising in Eileen Gray's work was intended. However, the planned discussion was cancelled when it was discovered that the curator, who was the only employee at this museum with authoritative knowledge on Gray, was on extended sick leave with no scheduled return.

5. Comparative Analysis

A comparative analysis between E. 1027 by Eileen Gray and Villa Savoye by Le Corbusier was undertaken to explore the distinct architectural philosophies of two pivotal figures in modernism, highlighting how Gray's gender-specific experiences might have influenced her unique interpretation and application of modernist principles in contrast to Corbusier's more universally recognised approach. This comparison was not simply an examination of their architectural styles, but a deep dive into their plans, spaces, and forms, aiming to uncover the subtleties of Eileen Gray's nuanced approach in contrast to Le Corbusier's. By analysing these aspects, the research aimed to highlight how Gray's interpretations and modifications of modernist principles contributed uniquely to the movement. The analysis was enriched by drawing upon a diverse range of opinions from theorists and critics, which provided a framework to substantiate the argument. This methodology was selected to not only explore the physical attributes of each building but to delve into the underlying architectural philosophies, thereby offering a comprehensive understanding of how gender-specific experiences may have influenced Gray's reinterpretation of modernism.

Aims and objectives

The objectives are to uncover the societal norms and gender biases that shaped the professional landscape for women in architecture, to analyse the impact of these constraints on Gray's career, and to assess how her unique gender-influenced perspective contributed to a distinct interpretation of modernism.

Chapter 1: External Factors Influencing Women in Architecture in the Early 20th Century

This chapter identifies some of the constraints and challenges women faced in establishing a career in architectural design in the early part of the 20th century. It then dissects how Gray's personal journey through the constraints of her time led to a career which transitioned through fine art, decorative art, furniture design and, eventually to a nuanced and deeply human-centric version of modern design.

At the beginning of the 20th century, the field of architecture was a challenging landscape for women, who faced substantial barriers to entry and recognition. Held back by limited access to formal education in architecture, and societal prejudices that directed them toward traditionally 'feminine' roles within arts and crafts, women had to navigate a path laden with obstacles. Buckley explains that women were thought to have gender-specific talents that shaped their capabilities in design, characterised as “dexterous, decorative and meticulous” (1986, p.4). These attributes suggested that women were inherently well-matched to specific sectors of design creation, particularly those traditionally termed as the decorative arts. This encompassed activities like “jewelry, embroidery, graphic illustration, weaving, knitting, pottery, and dressmaking”. This gendered stereotype is emphasised by Buckley: “Certain occupations and social roles are designated female, and a physical and intellectual ideal is created for women to aspire to” (1986, p.4). Despite the constraints of their time, some women created their own way into architecture, challenging the social and cultural barriers, and reshaping the field with their contributions, paving the way for a more inclusive future in the field of architectural design.

Stratigakos reveals that the exclusion of women from architecture has a long-standing history. With records dating back to 1872, she details how women's rights advocate, Julia Howe, pondered the scarcity of female architects, taking her thoughts to the Victorian Discussion Society in London. Howe suggested that, given women's inherent design sensibility and potential for contribution, it was puzzling that more didn't pursue the profession. Howe argued “An architect ought to have taste” (quoted in Stratigakos, 2016, p.5), suggesting that women should pursue apprenticeships with architects, many of whom, in her view, lacked vision and were solely focused on material profit. She contended that female qualities were naturally, more in line with architecture, a field she saw as noble and befitting of women's higher purposes.

Martin and Sparke highlight the significant gender-based restrictions and limitations on professional and educational opportunities for women around 1900, particularly in the field of architecture and suggest that if a woman had pursued formal architectural education after studying fine art, her options would have been severely limited due to her gender. Specifically, at the University of London's Bartlett School of Architecture, she would have only been eligible for a restricted, non-professional course. The Architectural Association, another potential avenue for architectural education, rejected female applicants until 1917. In Paris, the situation was not much different. Although Julia Morgan, an American, was accepted into the architectural course at the Ecole des Beaux-Arts in 1902, the authors speculate that other women would not have been given entry, partly because they likely would have lacked Morgan's extensive academic background in architecture and engineering- qualifications that were accessible to women in American universities at the time (2003, p.98). This comparison signifies the significant barriers to entry that women faced in the architectural profession, shaped by gender bias and educational inequalities.

Influential voices in the media emphatically asserted that architecture was not an arena for women. For example, in 1902, an article titled "May Women Practice Architecture?" was published by Thomas Raggles-Davison (quoted in Stratigakos, 2016, p.7), editor of the *British Architect*. Raggles-Davison argued that "in the supreme qualities of fine architecture, a woman is by nature heavily handicapped" (2016, p.7). According to his perspective, the very qualities that nature bestowed upon women, making them appealing to men, were the same qualities that rendered them unfit for a career in architecture. Raggles-Davison described women as being "temperamentally unfitted" to the "production of good architectural design", their "lightness of touch", "changeability," and "charming" decorativeness lacking the masculine "strength of handling", "steadfastness of view" and "judicious reserve needed for architecture" (2016, p.7).

This overt sexism against women in architecture was not limited to Britain but resonated globally. In 1908, German architectural critic Karl Scheffer (quoted in Stratigakos, 2016, p.8) published a treatise suggesting that women who defied their natural roles in order to chase after careers in the arts, risked losing their feminine qualities. Scheffer continued that such women became "irritable hermaphroditic creatures" who might suffer from a hypertrophy of the sex drive, leading to prostitution, or, more often, from lesbianism" (2016, p.8). He ended with: "Woman," he thus declared, "must stay very far away from architecture" (2016, p.8).

Despite the widespread discrimination and the barriers they had to face, a determined few managed to navigate these challenges. Figures like Eileen Gray, Charlotte Perriand, and Lilly

Reich overcame societal constraints to contribute profoundly to modern architecture and design. Each, in her own right, not only defied the gendered expectations of their time but also brought unique perspectives and innovations that have left lasting impacts on the architectural landscape.

Turning the focus to Gray, this discussion looks at the path that she skilfully manoeuvred through, allowing her to rise above the prevalent barriers of her time. Gray's move from being overlooked to becoming celebrated highlights her ability to challenge and change the male-dominated narrative of modernist architecture through her unique perspective.

Despite being born to a wealthy family and her aristocratic upbringing, Gray was critical of her privileged class's complacency, channelling her efforts into earning recognition through her own work in architecture and design, based solely on her merit. Adam reveals "She rarely made use of her title - 'The Honourable' - thinking it better suited to operettas and highly inappropriate for an architect talking to workmen" (2019, p.28). Her education at the Slade School of Fine Art in London between 1898 and 1900, likely influenced by her father's own career as a landscape painter, laid an artistic foundation. Later, Gray's journey took her to Paris, where she furthered her studies in the arts at the Académie Colarossi.

Constant contends Gray's early prominence in the design world, stemmed from her innovative use of lacquer work, as one of the earliest decorative artists in Europe to blend traditional lacquer techniques with contemporary Western preferences (2007, p.23). After meeting Seizo Sugawara, a master in traditional Japanese lacquer work, Gray was introduced to the intricate art of lacquer, a skill that demanded patience, precision, and a deep respect for the material. Under Sugawara's mentorship, Gray embarked on an intensive exploration of lacquer techniques, an experience that not only honed her craftsmanship but also deepened her appreciation for the dialogue between form, function, and material. Adam details the level of dedication that Gray gave to learning the craft: "she had a kind of obstinacy which would not allow her to give up once she had started on something; she would always see it through, until she had achieved a result that satisfied her ever-critical mind and eye" (2019, p.54).



Figure 1: One of Gray's lacquered wood screens. (Photo credit: Kelly Gallery and Stephen Kelly, New York)

In 1910, leading German designers, such as Bruno Paul, Richard Reimerschmid and Paul Wenz came to Paris, exhibiting their work in the Salon d'Automne. Up until this time, French designers would only exhibit individual furniture pieces, whereas the Germans would exhibit their furniture designs positioned together, like a fully furnished room. The work produced by the German designers inspired Gray, while her French counterparts were not impressed by their designs, with Adam adding that "Eileen would often complain about the chauvinistic arrogance of the French, in their unshakable belief in the supremacy of their taste", adding "For Eileen, the new ideas coming from Germany were a new beginning in modern design" (2019, p.58, 59). This shows Gray to be a forward-thinking designer, keen on embracing innovation and new ideas. Whilst continuing to enhance her lacquering skills, Gray also added craft skills to her repertoire.

In 1913, Gray was given the opportunity to exhibit some of her work at the VIII Salon de la Société des Artistes Decorateurs, where she chose to show some of her lacquer screens. This was the first time she had unveiled any of her designs to the public and the reviews were positive. The British edition of *Vogue* published an article on Gray and her work in 1917 and she continued to show her work in five Salons of the Société des Artistes Decorateurs, until 1933, but as Adam explains, “one looks in vain for her name among the many participants. It is as if she has simply been overlooked” (2019, p.70). It was during one of these exhibitions that Gray secured her first important client, Jacques Doucet. Adam adds that Doucet, when purchasing some of Gray’s lacquer screens, requested that she design some bespoke furniture for him (2019 p.78). Doucet commissioned an architect to design a studio for him, to transfer and show his most precious pieces. He selected three of Gray’s pieces to join what he considered to be “the quintessential pieces of modern art and design” (quoted in Adam, 2019 p. 78), with images of the finalised studio published in *L’Illustration* magazine in 1930. Although her designs were photographed and showcased, only the male designers featured in the same images were acknowledged, leaving Gray’s contributions unrecognised once more.



Figure 2: Gray’s ‘Lotus Table’ showcased in Jacques Doucet’s studio. (Photo credit: *L’Illustration* magazine)

Despite the arts being perceived as a more welcoming place for women, Gray's experiences reveal a glaring disparity in recognition and credit compared to her male counterparts. The instances where her designs were exhibited alongside those of prominent male designers, only to have her contributions overlooked, serve as poignant examples of the challenges she faced. This lack of acknowledgment occurred even before Gray ventured into architecture, highlighting a broader pattern of exclusion. Buckley observes: "To compound this omission, the few women who make it into the literature of design within the framework of patriarchy; they are either defined by their gender as designers or users of feminine products, or they are subsumed under the name of their husband, lover, father or brother" (1986, p.3).

In 1922, Gray opened her own furniture store in Paris, 'Jean Desert', "assuming a male guise while invoking "a remote locale", according to Constant (2007, p. 43), who also adds that Gray's business stationary for her lacquer workshop was titled 'Desert et Gray', mirroring a comparable uncertainty surrounding her gender. By adopting a seemingly masculine persona or at least a gender-ambiguous presentation for her businesses, Gray strategically manoeuvred within the constraints of her time. The decision to use a male guise and the choice of a name that evoked a distant place reflect the societal expectations of women during the 1920s. It demonstrates Gray's awareness of the gender biases that might hinder a woman's success in the business world, especially in fields like furniture design and entrepreneurship, traditionally dominated by men.

Jean Badovici, Romanian architect, and author of the magazine *L'Architecture Vivante*, became a good friend to Gray, after meeting in 1921 (Constant, 2007, p. 43) and introduced her to architecture; it was for Badovici, that Gray designed her first house- E. 1027, which he was to live in. In her book, Constant describes this initial conversation between them, as quoted by Gray in her later years: "Badovici said to me: why don't you build? I laughed in his face. I had always loved architecture. More than anything. But I didn't think myself capable of it" (2007, p.67). Contrary to the often-cited narrative that credits Jean Badovici with mentoring Eileen Gray into architecture, it was actually Adrienne Gorska, a female Polish architect, who played a significant role in Gray's architectural education, by teaching her the basics of architectural drafting (Espegel, 2018, p. 106). This correction not only sheds light on the true nature of Gray's formative architectural influences but also highlights the overlooked contributions of women in the mentoring and development of female talent within the field.

Beyond the obstacles that typically barred women from entering the field of architecture, those few who managed to carve out a career for themselves frequently faced further challenges, including lack of recognition for their work, misattribution of their achievements to male

colleagues, and, for many, being completely erased from historical accounts. As already discussed in this chapter, Gray had already faced some of these issues, before arriving at her career in architecture. As documented by Martin and Sparke, Gray suffered further, by having her most notable design, E. 1027 misattributed to Jean Badovici (2003, p.100), as well as by Le Corbusier (Colomina, 1993, p. 28), by several historians and writers. Discussing this issue for women, Martin and Sparke say: "This asset stripping is a familiar phenomenon. The attribution of an object or a building, and therefore the credit for it, is often given to the woman's male collaborator, partner, or teacher. To be a part of history an architect, like an artist, has to have a body of work which can be seen and assessed, but when the exact role or contribution is unclear or in doubt, cultural assumptions about women's auxiliary role and subservient nature take over" (2003, p.100).

Chapter 2: Design Principles and Philosophies; Gray vs. Le Corbusier

This chapter compares Gray's and Le Corbusier's architectural philosophies, drawing on their life stories, education, and key experiences to uncover the influences behind their approaches to design. By examining their backgrounds and reflections in various publications and interviews, the analysis aims to contrast their unique perspectives on modern architecture. The argument presented contends that while Eileen Gray's architectural work was influenced by Corbusian principles, she provided a distinctly original interpretation of his architectural approach. It is suggested that the unique nature of her work stemmed from her personal development as a designer, a development significantly shaped by the constraints imposed by her gender.

With her father being an artist, earning a living painting Victorian portraits and landscapes, Gray's early environment was filled with artistic and intellectual stimulation. Her father's artistic pursuits undoubtedly influenced and likely fuelled her early appreciation for the arts, guiding her towards a path for creative exploration and innovation.

Between the years of 1889-1900, Gray attended the Slade School of Fine Art in London, and according to Gray, her time in London between 1898 to 1900, was decisive, where she claimed: "the teaching of the Slade School was more avant-garde than in Paris" (quoted in Stritzler-Levine and Pitiot, 2020, p.63). It was during this time that Gray nurtured her avant-garde sensibilities, with modernist currents she encountered, which she further cultivated in her later years in Paris. This early exposure, combined with her subsequent engagement in rug making, lacquer design, and furniture creation, laid the groundwork for her holistic approach to design.

Before transitioning to architecture, Gray's designs were highly regarded and commercially successful, culminating in the opening of her own Parisian furniture store, Jean Désert, where she sold her creations. Creating these bespoke, functional art pieces for interiors allowed Gray to explore and refine her design principles- attention to detail, the integration of form with function, and the customisation of space- principles that would deeply influence her architectural projects. This blend of craftsmanship and design informed her later architectural innovations, demonstrating a continuous thread of artistic integrity and innovation throughout her work. Gray's approach to space and function emphasised flexibility and personalisation. Her designs were user-centric, focusing on the needs and comfort of the inhabitants.

Gray expressed concern that avant-garde architects prioritised a building's exterior appearance over the comfort and functionality of its interior spaces. For example, when describing E. 1027 in a special issue of *L'Architecture Vivante*, Gray explains "External architecture seems to have absorbed avant-garde architects at the expense of the interior. As if a house should be conceived for the pleasure of the eye more than for the well-being of its inhabitants" (quoted in Constant, 1994, p.265). The idea that architecture had become more about visual impact than creating spaces that enhance the well-being and satisfaction of the people who live in them, ran contrary to her own beliefs.

Constant suggests that Gray approached her architectural designs with a focus on the internal experience of the home, prioritising the needs for privacy and personal space (1994, p.269). Unlike Le Corbusier, who designed from the outside in, emphasising open, transparent spaces, Gray started from the inside out. She believed that a home's interior should dictate its exterior, ensuring spaces were designed for comfort and functionality. Her philosophy was that architecture should cater to an individual's need for a personal retreat, challenging the modern movement's emphasis on openness and spatial flow. In reaction to some of Le Corbusier's purist villa designs, Gray said "The interior plan should not be the incidental result of the facade", continuing "it should live a complete, harmonious, and logical life" (quoted in Constant, 1994, p.269).

Gray's statement reflects her design philosophy, which centres on creating spaces that are not only logically organised and harmonious but are tailored to the individual's needs and comfort. Her perspective on the 'life' of a house, with its emphasis on interior harmony and logic, stands in stark contrast to Le Corbusier's mechanical metaphor, where he famously says "a house is a machine for living" (Constant, 2007, p.61), representing a fundamental divergence in envisioning the essence of a home- one as a living entity infused with human qualities, the other as an efficient, utilitarian construct. Gray's approach signifies a departure from architectural norms focused on external appearance, emphasising instead the importance of the interior's role in defining the quality and character of a living space.

Gray's architectural philosophy reveals a clear engagement with, yet a critical stance towards, the prevailing modernist ideals of her time. Her adoption of Le Corbusier's 'Five Points for a New Architecture' was not mere imitation but a deliberate attempt to infuse these modernist principles with a sense of human scale and intimacy. Her work is characterised by painstaking attention to detail and a focus on the lived experience of space. She believed that architecture should not only serve functional needs but also address the emotional and psychological wellbeing of its occupants. This belief led her to prioritise spatial dynamics that encouraged

comfort and contemplation, integrating furniture and interior design as integral components of her architectural projects. Her designs often featured movable panels and flexible spaces that could be adapted to the changing needs of the user, reflecting a keen sensitivity to the rhythms of daily life.

Gray's willingness to challenge architectural norms stemmed from her broader critique of the modern movement's sometimes impersonal tendencies. While she shared the modernists' interest in new materials and construction techniques, her emphasis on experience within architecture represented a bold departure from the more fanatical aspects of modernist principles, advocating for a more inclusive and empathetic approach to design. Gray confirmed this when she said: "The thing constructed is more important than the way it is constructed, and the process is subordinate to the plan, *not the plan to the process*. It is not a matter of only constructing beautiful arrangements of lines, but above all, *dwellings for people*" (quoted in Constant 1994, p.274).

By blending the avant-garde with the personal, Gray's work offers a fascinating version of modernism- one that is rooted in the belief that architecture should enrich the human spirit as much as it shapes the built environment. This approach not only set her apart within her field, but also contributed to a broader understanding of the potential of architecture to reflect and enhance the complexity of human experience.

Le Corbusier stating that houses were "machines à habiter (machine for living in)" (Constant, 2007, p.61), reflected his belief in the importance of efficiency and functionalism in architecture. His approach to design was heavily influenced by the advancements of his time, and he often drew parallels between homes and the efficiency and simplicity of machines. This view was in line with the broader modernist movement, which sought to break away from traditional architectural forms and ornamentation, in favour of a more rational and standardised approach that could benefit from industrial production methods. Corbusier's aesthetic leaned towards a universal solution, applying the same principles broadly across different contexts. In contrast, Gray's critique of Corbusier's principles centred on what she perceived as the limitations of his technologically driven approach: "The art of the engineer is not sufficient, unless it is guided by human needs" (quoted in Constant, 1994, p. 277). In response to Le Corbusier, she argued: "A house is not a machine to live in. It is the shell of a man, his extension, his release, his spiritual emanation. Not only its visual harmony but its entire organization, all the terms of the work, combine to render it human in the most profound sense" (quoted in Constant, 1994, p. 277). She argued that his focus on the house as a machine and the symbolic use of machine aesthetics sometimes led to a reductive and dehumanising form

of abstraction. Gray sought to humanise modernism by prioritising personal experience and tailored her designs to the individual rather than the collective, incorporating elements that resonated with the human scale and senses.

Charles-Edouard Jeanneret-Gris, who took on the pseudonym Le Corbusier, profoundly influenced 20th century architecture and urban design through his visionary ideas. He was a leading advocate of a modern architecture, characterised by simplicity, abstraction, and a focus on function. His work fundamentally altered the landscape of modern architecture and urban planning.

Le Corbusier was born in La Chaux de Fonds, renowned globally for its watchmaking tradition. His father, Georges Edouard Jeanneret, specialised in the art of watch enamelling. His mother, Marie Charlotte Amélie Jeanneret-Perret, was a talented musician and teacher. This combination of artistic sensitivity from his mother and the meticulous craftsmanship of his father, shaped Le Corbusier's aesthetic sensibilities and his pursuit of excellence. Curtis adds: "It was a family in which technical, intellectual and aesthetic competence were all prized" (1986, p. 17).

In 1902, Le Corbusier attended the 'Ecole D 'Art', a school in his hometown, that provided an education in the applied arts. The school aimed to teach its pupils "the spirit of invention, purity of taste, knowledge of ornamentation" and "to reconcile 'artistic perfection' with 'good value'." (1986, p.18). Le Corbusier absorb these foundational principles. Blending aesthetic refinement with utility became the core of his architectural philosophy.

One of the most influential formative experiences was his time spent working for Peter Behrens in Germany in 1910. Working with Behrens, Le Corbusier was introduced to a systematic approach to design and architecture, which emphasised functionalism and the rejection of ornamentation. It was here that he also met other future leaders of modern architecture, such as Ludwig Mies van der Rohe and Walter Gropius, which further enriched his understanding and approach to modernism.

In around 1911, Le Corbusier's journey extended to the East, including trips to the Balkans, Turkey, Greece, and the Acropolis in Athens. These travels deepened his appreciation for classical proportions and the integration of buildings with their natural surroundings. Curtis observes: "We do well to take him seriously when he declares that history was 'his only real master'. He looked for common themes underlying past buildings of different styles, and blended these together, transforming them to his own purposes" (1986, p.8).

Returning to Paris, he adopted his pseudonym "Le Corbusier," signalling a new phase in his career that would see him advocate for a new architectural language that merged aesthetics with social function. Le Corbusier worked for Auguste Perret, between June 1908 to November 1909, a progressive figure in the use of reinforced concrete for architectural construction. From Perret, Corbusier learned the structural potential and aesthetic possibilities of concrete, a material that would play a significant role in his future architectural projects. Jencks adds "A second point he learns is that reinforced concrete frees up the plan and space of a building so that the architect has much more freedom" (2000, p.57) - a lesson that Le Corbusier later includes in his 'The Five Points for a New Architecture'.

He met French painter and writer, Amédée Ozenfant in 1918. Together, they developed the concept of Purism, a movement aimed at embracing a style of art that abandoned the decorative excesses of Cubism in favour of simplicity and precision, and advocating for a return to simple, geometric forms and elemental composition. The construction of the Ozenfant House and Studio in Paris (1922-1924), one of the first Purist houses in the city, is a result of their partnership.



Figure 3: Ozenfant House and Studio. (Photo credit: Siobhan Pitchfork)

In 1927, Le Corbusier designed the Maison Citrohan, intended as an exploration into affordable and functional housing, aiming to transform residential living by designing it to be both accessible and orderly. His vision for this project was to elevate living standards in the aftermath of World War I. It was through projects like this that Le Corbusier sought to revolutionise residential architecture by making homes more adaptable to the needs of modern life, emphasising light, space, and the efficient use of technology.



Figure 4: Maison Citrohan. (Photo credit: Laura Gray)

Johnson sheds light on Le Corbusier's unwavering commitment to his architectural principles, sometimes at the expense of his clients' preferences and practical needs. When discussing Villa Stein/ de Monzie, that Le Corbusier was designing for his clients: "She also tells us of the 80m running track planned for the villa's roof, for which the Steins, then in their sixties, would have little use. His confidence in the superiority of his work over any condition present in reality was such that the design for the Villa Stein/de Monzie was largely complete before he had ever seen the land on which it would be built" (2002, p. 184). This reveals a disconnect

between Corbusier's vision and the clients' desires and needs, as well as a disregard for the particularity of context. Such instances underscore Corbusier's belief in the universality of his architectural philosophy, often designing with an abstract ideal in mind rather than the specificities of the site or the specific needs of his clients.

The discussion in this chapter shows that Le Corbusier and Gray, approached their craft from markedly different vantage points, both deeply rooted in their unique backgrounds, experiences, and philosophies. Corbusier created villas that were not simple standalone structures but prototypes for a larger vision of urban scale living. This was mirrored in his designs, which often featured open plans and a strong emphasis on communal living spaces. Corbusier envisioned his buildings as parts of a greater whole, contributing to the fabric of a meticulously planned city (Boesiger, 1972).

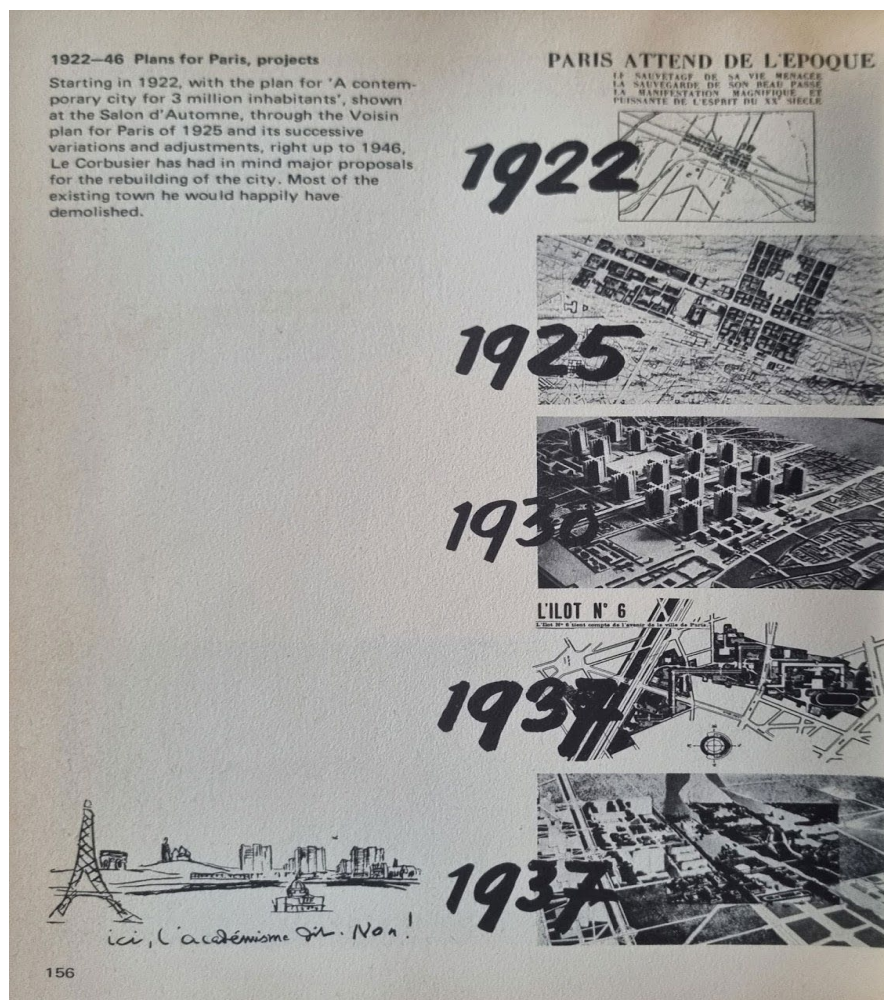


Figure 5: Image showing Le Corbusier's plans for Paris. (Photo credit: Boesiger, W (1972))

In stark contrast, Gray's approach to design was introspective and personal. With an upbringing immersed in the arts, Gray's designs were intimate, focusing on the individual's experience within a space. Her work, from the detailed craftsmanship of her furniture to the thoughtful layout of her homes, emphasised the interior over the exterior, the personal over the communal. Gray's architecture invited occupants inward, encouraging a close, detailed appreciation of the space and its features. Her designs were sanctuaries for the individual, reflecting her belief in the importance of private domains and interior life.

This difference between outward and inward-looking designs highlights the alternate paths taken by Corbusier and Gray in their quest to redefine modern living. It underscores not only their distinct architectural philosophies but also hints at the broader influence of societal roles and expectations in their work. Corbusier's vision was expansive, seeking to shape the future of cities and the way people interact within communal environments. Gray's vision, however, was concentrated, focusing on the individual's connection to their immediate surroundings; her deep engagement with the individual's experience of space reflects an approach shaped by the constrained pathways available to women in her time. Directed towards crafts and decoration, fields traditionally deemed more 'appropriate' for women, Gray's journey through these domains armed her with a unique sensibility. Her gender-specific experience, navigating a professional world where architecture was largely inaccessible to women, fundamentally informed her approach to design. It instilled in her work a nuanced understanding of space and detail, often overlooked in the grand architectural narratives dominated by her male contemporaries. Thus, Gray's distinct vision for modern living, rooted in personal comfort and aesthetic pleasure, can be viewed as not simply a stylistic choice but a response to the gendered route imposed upon women in the arts and architecture.

Chapter 3: Comparative Analysis: E1027 vs. Villa Savoye

A comparative analysis of Le Corbusier's Villa Savoye and Eileen Gray's E.1027.

Both Villa Savoye and E.1027 stand as embodiments of modern architectural language and are a testament to the era's stylistic codes and the modernist syntax based on Le Corbusier's 'Five Points for a New Architecture', which are listed below. They share formal characteristics that are associated with modernism; both being an abstraction of form and having the continuity of smooth, flat surfaces rendered with precision. These aesthetic choices reflect the modernist emphasis on purity of design and the seamless integration of structure with its visual expression.

Through a comparison of these two houses, the chapter will explore the nuances of Gray's work, its divergence from Le Corbusier's set of beliefs, and the unique features that mark her contributions to modern architecture. The Villa Savoye was completed in 1930 by Le Corbusier and is widely regarded as one of the most significant works of the modern movement. E.1027 was completed in 1926 and is viewed as Eileen Gray's most iconic work.

Le Corbusier defined the principles of modern architecture with his 5 Points for a New Architecture. These, in combination, formed the basis of a new architectural language generally referred to as the Corbusian syntax.

Le Corbusier's 5 points for architecture are:

1. **The Pilotis-** The use of columns to raise the building from the ground.
2. **The Flat Roof-** Transforming the flat roof into a terrace or garden.
3. **The Free Plan-** The absence of load-bearing walls inside the structure means that the interior layout can be freely designed without structural constraints, allowing for open, flexible floor plans.
4. **Horizontal Windows-** Incorporating long, horizontal windows that run the length of the walls, which provides greater illumination and a greater sense of openness.
5. **The Free Design of the Facade-** By cantilevering the façade beyond the pilotis, the facade of the building can be designed freely and is not dictated by load-bearing considerations.

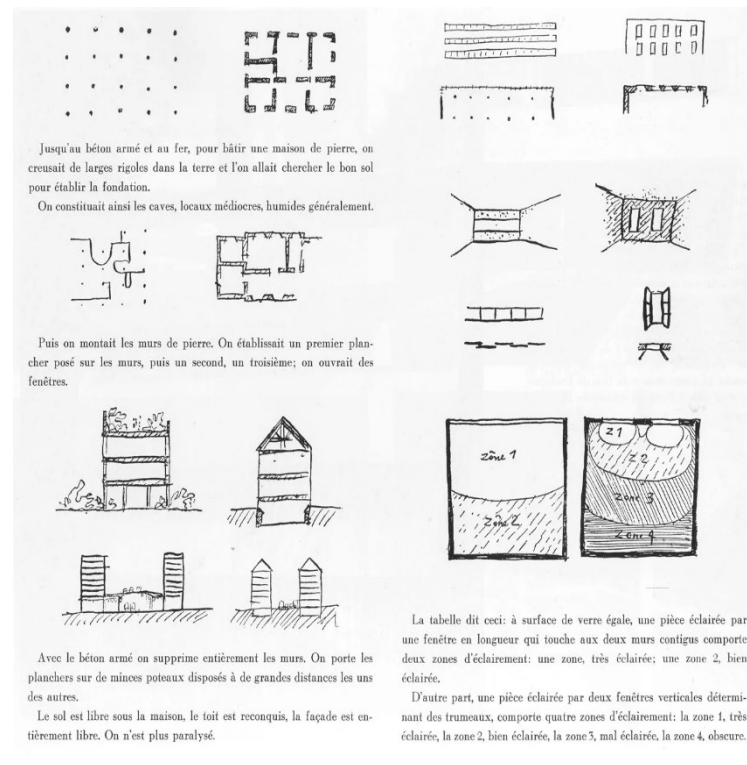


Figure 6: "Les cinq points d'une architecture nouvelle"- Le Corbusier's '5 Points for a New Architecture'. (Photo credit: Fondation Le Corbusier)

The following overview provides an initial comparison of Villa Savoye and E.1027 against Le Corbusier's five architectural points. This serves as a preliminary framework for discussion, offering initial impressions before delving into a more detailed analysis later in the chapter.

Le Corbusier's Villa Savoye and the Five Points-



Figure 7: Villa Savoye (Photo credit: Fondation Le Corbusier)

1. **The Pilotis-** Villa Savoye is elevated on columns, creating a functional space underneath, and giving it a floating appearance. This is a direct application of the pilotis principle.
2. **The Flat Roof -** The roof of Villa Savoye is a flat terrace, used as a garden and living area, fully embracing this point.
3. **The Free Plan-** The interior of Villa Savoye is open-plan, without load-bearing walls, allowing a flexible use of space.
4. **Horizontal Windows-** The long horizontal windows in Villa Savoye ensure even lighting and a strong visual connection with the outdoors.
5. **The Free Design of the Facade-** The facade of the villa is free from structural constraints, emphasising aesthetic and functional choices over structural needs.

Eileen Gray's E. 1027 and the Five Points:



Figure 8: E. 1027. (Photo credit: Manuel Bougot)

1. **The Pilotis-** E. 1027 uses columns on its front facade. It is, however, built closer to the ground, with its form more integrated into the landscape.
2. **The Flat Roof -** E. 1027 has a flat roof. The flat roof served not just as an aesthetic statement, but also introduced new possibilities for the building's functionality and interaction with its surroundings and breathtaking views, which Villa Savoye could not offer its users.
3. **The Free Plan-** While not as radically open as Villa Savoye, E. 1027 features an internal layout that allows fluidity and flexibility, with movable panels and multi-functional furniture.
4. **Horizontal Windows-** E. 1027 incorporates large windows, but they are designed more for specific views and individual spatial experiences rather than the uniform lighting of Villa Savoye.
5. **The Free Design of the Facade-** The facade of E. 1027 interacts with its environment, prioritising views, and personal experience over the expression of structural form.

Expanding on the initial comparison, this next phase of analysis will closely examine whether Eileen Gray's E. 1027 aligns with or diverges from Le Corbusier's Five Points for a New Architecture, or if Gray followed her own design philosophies and rules. Through this, I seek to identify some of the unique characteristics of each structure and how they represent the distinct philosophies of Gray and Le Corbusier.

Discussing the modernity of E. 1027, Badovici says “There is not a single detail of the construction of the E 1027 that is not determined by current technology and its potential” (quoted in Benton, 2022, p.7), suggesting that E.1027’s design was firmly rooted in the innovative spirit of the era, which can be seen as both aligning with and expanding upon Corbusier's modernist ideals.

The images below compare the first-floor plans of Le Corbusier's Villa Savoye and Eileen Gray's E. 1027 and reveal contrasting architectural approaches. Villa Savoye's design is characterised by its box-like form and straightforward layout, delineating each room with clarity. This simplicity reflects Le Corbusier's modernist principles.

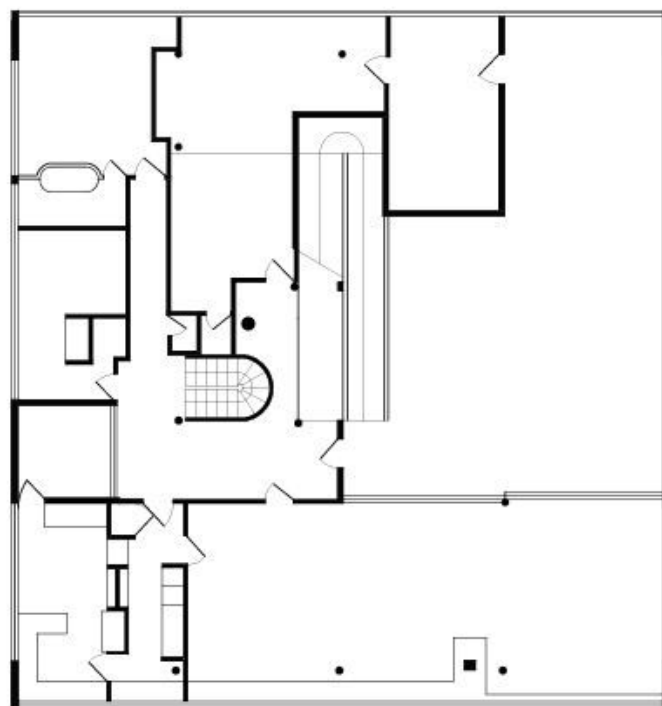


Figure 9: Villa Savoye, First Floor Plan, NTS. (Photo credit: Jacqueline Jauregui)

Conversely, E. 1027's plan is more complex and organic, with a fluid yet compartmentalised layout. Gray's design integrates spaces in a manner that allows for both privacy and flow, offering a nuanced understanding of spatial dynamics. This contrast highlights Gray's emphasis on creating intimate, user-centred environments, as opposed to Le Corbusier's focus on open, geometrically driven spaces.

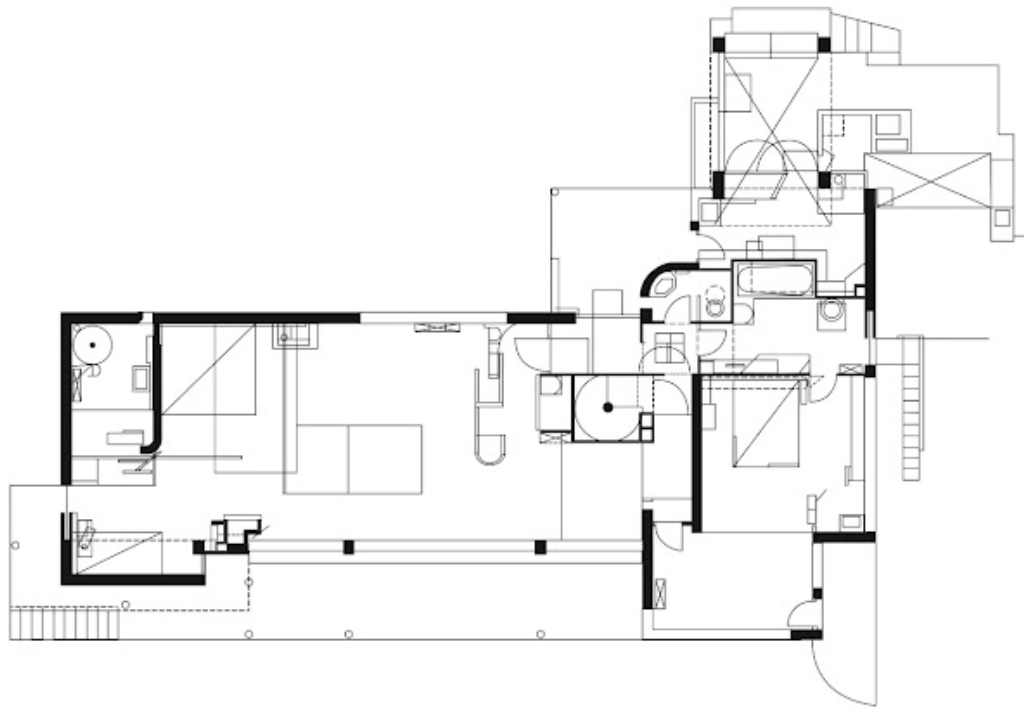


Figure 10: E. 1027, Basement Floor Plan, NTS. (Photo credit: Mark Cooper et al)

Gray's approach in E. 1027 favoured a highly personalised and functional living space with custom-designed features that catered to the individual needs of the user. This contrasted with Le Corbusier's preference for a more standardised and universal design ethos that often prioritised the expression of architectural volumes and form over the customisation for individual users. Le Corbusier's designs were a demonstration of his "Five Points for a New Architecture", promoting a more collective and machine-like efficiency, while Gray's designs were intimate, with a focus on comfort and the sensory experience of the occupants.

For example, Gray's E. 1027 featured several bespoke physical features, including-

- Pivoting and sliding panels for flexible space configuration.
- Built-in furniture, such as a circular bookshelf that rotated around a structural column.
- A seaward-facing glazed facade that connected the interior with the coastal surroundings.
- A terrace that provided outdoor living space, emphasising the connection to the landscape.



Figure11: Aerial view of E. 1027, showing its connection with the surrounding landscape.

(Photo credit: Manuel Bougot)

Gray customised the home's interior with bespoke furniture pieces that she designed for Badovici and herself. These included Gray's Transat chair, which reflected the maritime themes of the house, adjustable tables that could be used from various seating positions, non-fixed elements like the 'E. 1027 table', designed to allow users to adjust the table height based on where they were seated, as well as custom storage solutions that maximised space efficiency and blended seamlessly with the interior.



Figure 12: A selection of Gray's bespoke furniture installations at E. 1027. Image includes movable screens, as well as her famous adjustable table. (Photo credit: Carla Maher)

A piece that was designed specifically for Badovici himself, was the 'Nonconformist armchair'. In his publication, *L'Architecture Vivante*, Badovici includes images of this chair, also supplying his own description of it: "Note the armchair in the dining-room, which has only one armrest, It's the style today: crossing your legs and resting one elbow while smoking a cigarette and turning round slightly. The absence of the other armrest allows you to move freely while talking to your other neighbours" (quoted in Benton, 2022, p.11).



Figure 13: The Nonconformist Chair (Photo credit: ClassiCon, courtesy Aram Store)

As described by Moore, E. 1027 transcends its initial appearance as a simple cuboid raised on pillars, revealing a complex interplay of spatial transitions that blend the house with its coastal setting. The boundaries of the house, initially seeming clear-cut, are subtly blurred by an interplay of pathways and staircases that weave through the environment into the home and back out. It stands as a robust structure that could also be seen as a sequence of screens framing the landscape. However, the simplicity of this basic form hides a complex interplay of layers that Gray, meticulously integrated within the structure. These layers serve to transition the space from the land side of the property to the seaside, and from areas of shadow to areas of light, creating a dynamic experience of movement and visual transition for anyone navigating through the house. This intricate layering within the house's design reflects a thoughtful consideration of how space, movement, and the surrounding environment can be orchestrated to produce a rich, multifaceted living experience (Moore, 2015).

Both Villa Savoye and E. 1027 adopt an L-shaped configuration within their floor plans. However, Le Corbusier's approach is more insular and self-contained, set within a clearly defined, box-like structure that encapsulates the living spaces within its geometric boundaries. Conversely, Gray's interpretation is more expansive and exploratory. Her design extends beyond rigid confines, with elements that reach out and over the edges, suggesting a dynamic interaction with the environment.

Le Corbusier's form is more contained, maintaining a strict adherence to placing rooms in spaces within the box, without deviation, while Gray's plan is characterised by its expressiveness and expansion of the initial form. Her additions, which protrude and break from the primary L-shape, introduce a sense of fluidity and organic growth. In contrast to Le Corbusier's residual spaces that exist outside the defined boxes, Gray's design is meticulous in its spatial planning, utilising every inch as part of the designed environment. This difference highlights the contrast between Le Corbusier's more formalistic, purist approach and Gray's responsive, integrative design ethos.

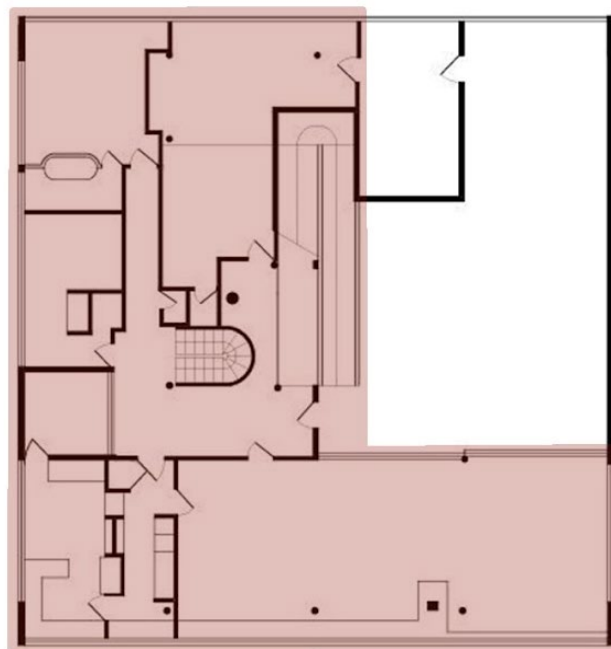


Figure 14: Villa Savoye first floor plan, highlighting 'L-shaped configuration'. (Photo Credit: Jacqueline Jauregui, edited by Victoria Weeks)

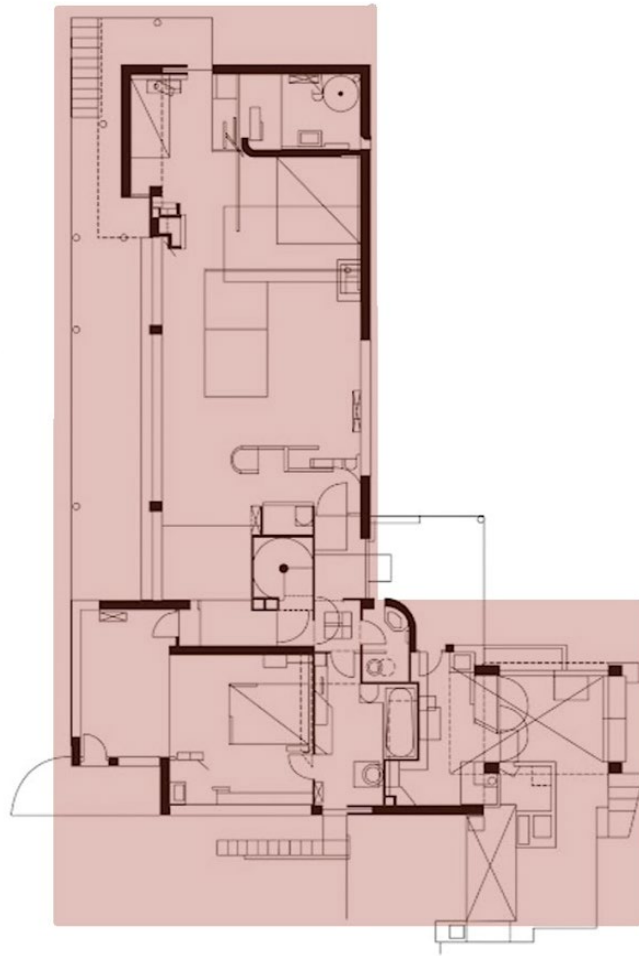


Figure 15: E. 1027 basement floor plan, highlighting 'L-shaped configuration'. (Photo credit: Mark Cooper et al, edited by Victoria Weeks.

In Gray's E. 1027, the master bedroom is strategically situated adjacent to the living area. Despite its proximity, Gray purposefully ensures its distinct separation, maintaining both privacy and convenience for its occupants. As indicated by the two red dotted lines, a more conventional and seemingly convenient placement for the door might be on the wall directly connecting to the living area. However, Gray chose to instead locate it on an adjoining wall. This strategic choice, while leading to the same space, keeps the entrance out of sight from the living area. The positioning of the bedroom's entrance, a crucial design element, is deliberate. This arrangement necessitates a marginally longer, alternative path to access the bedroom, thereby creating a journey for the user. This design choice reinforces the bedroom as a separate, autonomous space. It emphasises the individual purpose of each area, ensuring they function independently while maintaining a harmonious overall layout.

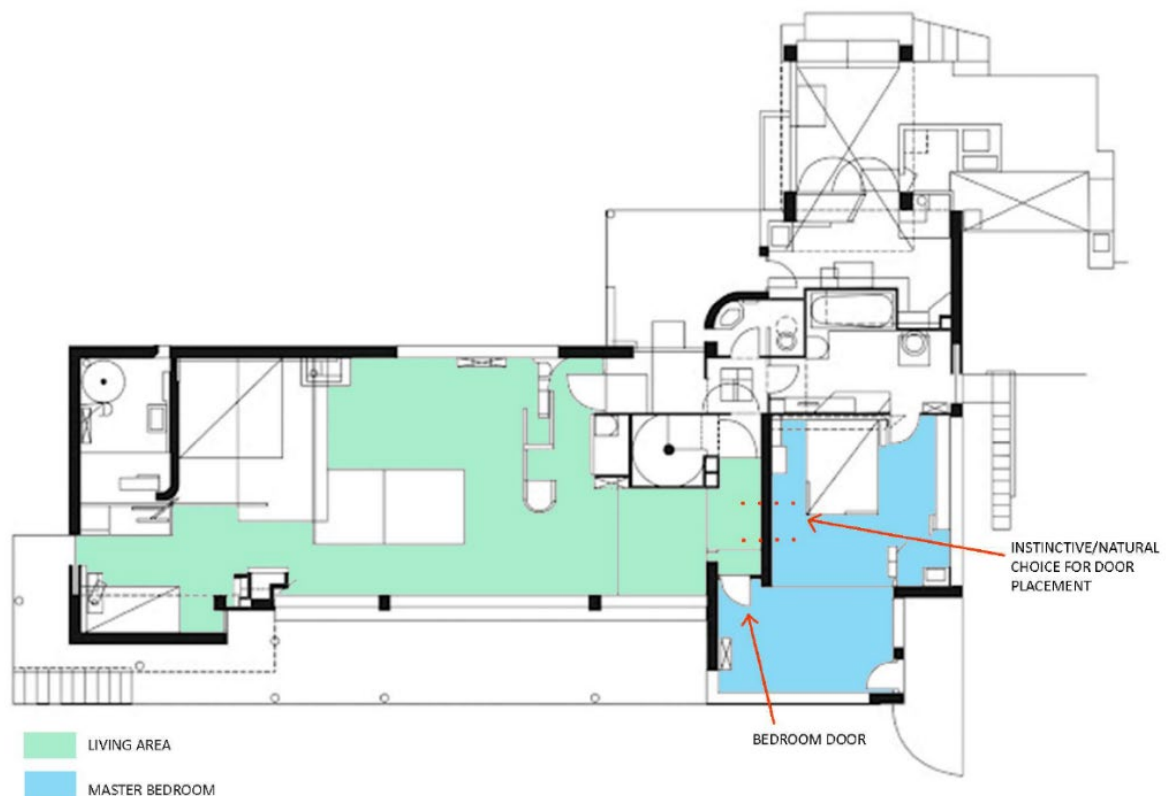


Figure 16: E. 1027 Floor plan showing location of living area in relation to master bedroom.
(Photo credit: Mark Cooper et al, edited by Victoria Weeks)

When describing the entrance to his own home, Badovici refers to it as “Large and welcoming”, describing the “key feature” within it as simply, “a bare wall”, before highlighting that this important decision was intended to create “a certain resistance” to the visitor, by not allowing them to see directly into the room they are yet to enter (quoted in Benton, 2022, p.7). Suggesting that this design choice as intentional and considered, Benton adds that Gray was quoted discussing this ‘resistance’, when referring to her store ‘Jean Dessert’: “Without giving an impression of resistance, the chicane stimulates the desire to penetrate, manages a transition, protects the mystery of the things to be seen next, holds pleasure in check”(quoted in Benton, 2022, p.7).

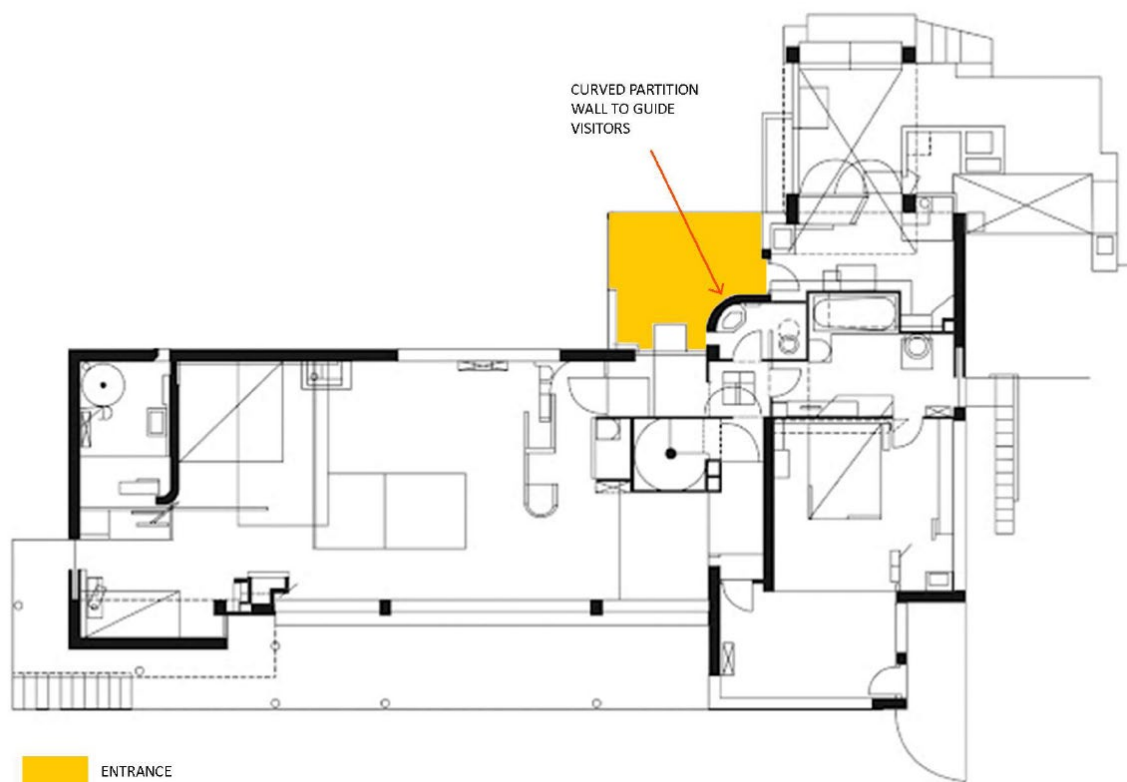


Figure 17: E. 1027 Floor plan showing entrance to E. 1027. (Photo credit: Mark Cooper et al, edited by Victoria Weeks)

A closer look at the entrance reveals a dual doorway setup, hinting at Eileen Gray's disregard of the Corbusian approach of minimal personal expression in homes. The doors are distinctly marked; one with 'sens interdit' (no entry) barring entry to the maid's quarters, and the other with 'entrez lentement' (enter slowly). This comical feature starts a subtle interaction between the house and its visitors, smartly highlighting the boundary between private spaces and areas open for access.



Figure 18: Dual entries to E. 1027. (Photo credit: Carla Mayher)

While Gray's E1027 appears to have followed the horizontal window principle, closer inspection of the windows on the sea-facing facade show that the horizontal band of windows is, in fact, created using fabric canopies that frame them, and doesn't use windows at all. Behind these canopies is a terraced area, with full height folding glass doors, not windows, as might have appeared at first glance.

When the glass doors are opened, they seamlessly integrate the outdoors with the interior living space, creating an expansive and unified area. The terrace transforms into a natural extension of the indoor environment. Conversely, when the doors are closed, the terrace adopts the character of a balcony, distinctly separate yet still connected to the surrounding coastal landscape. These subtle yet impactful design elements exemplify how Gray acknowledged Le Corbusier's principles, then further refined them by focusing on the users' needs. She skilfully leveraged the site's natural assets, such as the panoramic views and its natural connection to the coast and sea, enhancing the overall functionality and experience.



Figure 19: Terrace view at E. 1027, showing canopies and glass doors. (Photo credit: Carla Mayher)

Eileen Gray designed a shutter system that significantly enhanced ventilation and light control. Mounted on rails away from the window, these shutters could be moved and adjusted for optimal air flow and sunlight management throughout the day. This bespoke, manually operated system is another example of Gray's deviation from Le Corbusier's architectural philosophy, prioritising functional adaptability and personal customisation over the uniform, industrial aesthetics often favoured by Corbusian principles. Gray's approach reflects a deeper consideration of the occupants' living experience within the architectural space.



Figure 20: E. 1027's bespoke shutters. (Photo credit: Carla Mayher)

To summarise, Villa Savoye is a textbook example of Le Corbusier's five points, while E. 1027, though modernist in spirit, adopts a more personalised design, choosing not to follow some of these principles, in favour of intimacy, site-specific design and user-focussed functionality. Gray's approach reflects a different interpretation of modernism, one that instead of being about universal solutions or being a 'machine for living in', is more about individual experience, connection, and interaction with the environment. E. 1027 is a perfect representation of Gray's beliefs and philosophies towards design.

For further details on the nuanced comparisons between E1027 and Villa Savoye, including an exploration of the potential influences on Le Corbusier's later designs, please refer to the Appendix C, which extends the analysis beyond the scope of this chapter.

Conclusion

In exploring the connection between gender and architectural design, this dissertation posed the critical question: 'Was Eileen Gray's interpretation of modern architecture influenced by her gender-specific experience?'. This question not only sought to uncover the contributions of Gray to modern architecture but also to illuminate the broader challenges and opportunities faced by women in a field historically controlled by men. In concluding, it becomes evident that Gray's journey through her colourful career, was affected by the constraints and perspectives shaped by her gender, offering a unique lens through which to view her architectural legacy.

During the early twentieth century, the landscape for women aspiring to enter the field of architecture was far from welcoming. This period was marked by significant barriers to entry, rooted in societal norms and institutional practices that systematically excluded women from professional education and the practice of architecture. The University of London's Bartlett School of Architecture offered only limited, non-professional courses to women. The Architectural Association did not accept female students until 1917, while in Paris, access to architectural courses at the Ecole des Beaux-Arts was notoriously difficult for women, with very few exceptions managing to gain entry. These educational barriers were an expression of the common belief that women were unsuited to the demands of architectural work, which also permeated professional circles and hindered women's participation in architecture.

This narrative was profoundly influenced by deep-rooted sexist attitudes, as evidenced by prominent figures and publications of the time. Key articles and treatises explicitly argued against the suitability of women for the profession, citing innate feminine qualities as incompatible with the demands of architectural design. Such qualities, though celebrated in women for their decorative appeal, were contradictorily viewed as liabilities in the context of creating serious architectural work. This widespread scepticism about women's capabilities in architecture reflected a global sentiment that greatly limited their professional opportunities in the field. As a result of institutional and cultural biases, women were steered towards occupations deemed more 'appropriate' for their gender.

The path that women were directed towards- fields traditionally designated for women, such as textile design, interior design, lacquer work, and furniture making- unintentionally became a journey that enriched their architectural vision. These experiences, while considered secondary within the broader scope of architectural discourse at the time, afforded Gray a unique vantage point from which to approach modernism.

Gray's entry into architecture via the decorative arts exemplifies how constraints can, unintentionally, serve as a catalyst for innovation. Her work in the decorative arts cultivated an acute sensitivity to the details of interior space, detail, and design. Her background in lacquer work and furniture design, for instance, honed her skills in crafting objects and spaces that resonate on a deeply personal level with their users. This attention to detail and user experience became characteristic of Gray's approach to architecture, distinguishing her work from the more impersonal, large-scale focus that characterised much of contemporary modern architecture.

One of Gray's most celebrated architectural works, E. 1027, stands as a testament to the richness that her background in the decorative arts brought to her architectural practice. The house, designed as a bespoke living environment, showcases Gray's meticulous care for the interior plan, the integration of custom furniture, and thoughtful consideration of how light, space, and materiality impact well-being and aesthetic appreciation. Her use of screens and movable panels within her designs reflects her specialised understanding of space as dynamic and adaptable. These elements, which allow for fluid transitions within interior environments, further enhance Gray's commitment to creating spaces that are not only functional but also deeply attuned to the rhythms of human life. E. 1027 goes beyond traditional architectural functionality, embodying Gray's belief that architecture should nurture the individual's connection to their surroundings. Through her work, she demonstrated that the decorative arts were not peripheral to modern architecture but essential to understanding and expanding its possibilities.

While the barriers to entry for women in architecture were formidable, the few who managed to build careers for themselves, including Gray, often did so with the advantage of a privileged background. This privilege, characterised by wealth, access to education, and social connections, played a crucial role in facilitating their unconventional entry. Gray, hailing from an aristocratic family, had resources that were unavailable to most of her female contemporaries. As explained by Adam, early in her career, when deciding that she wanted to make Paris her permanent home, Gray found an apartment that she wished to live in, but couldn't afford: "The rent was 3,000 francs a year, which was by no means cheap, and she wrote to her mother asking if she could increase her allowance so that Eileen could take this place to 'live and work in'. Permission was granted" (2019, p.58). This allowed her the freedom to explore and excel in the decorative arts and later transition into architecture, a path less accessible to those without such means.

Similarly, contemporaries of Gray, such as Lily Reich, benefitted from their socio-economic standings to navigate the profession's gendered landscape. Reich, with her connections and involvement in design exhibitions, leveraged her position to make significant contributions to modern architecture and design, alongside her collaboration with Mies van der Rohe. This narrative also unfolded for other women, such as Julia Morgan, Charlotte Perriand, and Marion Mahoney Griffin. Each benefitted from the advantages of wealthy familial support or influential connections within their respective architectural circles.

Privilege played a pivotal role in shaping the contributions of women to modern architecture. Acknowledging this privilege is essential, not to diminish the achievements of these women, but to contextualise their successes within a broader social and economic framework. Their privileged backgrounds provided a platform from which they could challenge the status quo and contribute to the field of architecture, albeit through indirect routes. However, this reality also underscores the many challenges faced by women without such advantages, for whom the architectural profession remained largely out of reach.

Another critical issue that Gray and many other women from this period experienced was misappropriation of their work. Gray's work on E. 1027, suffered from attribution to male counterparts, most prominently Jean Badovici, and to some extent, were even misattributed to Le Corbusier. Despite her contributions to modern architecture, her work was overshadowed by her male contemporaries, whose contributions were more readily acknowledged and celebrated. As discussed by Espegel, when learning about Badovici and Gray's partnership in designing E. 1027: "Badovici was not too interested in showing off Gray's creative capacity or in making it known that the house had been built by both of them, or in the amount of her collaboration. The project was published in *L'Architecture Vivante* with both their names. Over time the omission of Gray's name in reference to E. 1027 became more frequent, until it ended being only attributed to Badovici" (2018, p.106). When discussing the controversial murals that Le Corbusier painted within E. 1027, without Gray's permission, Colomina adds that this misattribution extended even further to Le Corbusier being given credit for Gray's work, despite not playing any role in its design or construction: "The defacement of the house went hand in hand with the effacement of Gray as an architect. When Le Corbusier published the murals in his *Oeuvre complete* (1946) and in *L'Architecture d'aujourd'hui* (1948), Eileen Gray's house is referred to as 'a house in Cap-Martin', her name is not even mentioned. Le Corbusier will end up, later on, getting credit for the design of the house and even for some of its furniture. Still today, the confusion continues with many writers attributing the house to Badovici, or at best, to Badovici and Gray, and some still suggesting that Le Corbusier had

collaborated on the project. Even more sad, Eileen Gray's name does not figure, even as footnote, in most histories of modern architecture, including the most recent, and ostensibly critical ones" (1993, p. 28). This erasure from architectural history not only diminished Gray's legacy, but also perpetuated the notion that modernism was a predominantly male achievement.

Rykwert confirms that during the early 20th century, the contributions of women architects, including Gray, were largely overlooked. It wasn't until her later years that Gray's work began to receive the acclaim it deserved. This delayed recognition highlights a broader trend of belated appreciation for women's roles in shaping modern architecture, shifting from historical neglect to acknowledgment in prestigious venues like the Victoria and Albert Museum and the Museum of Modern Art in New York by 1980 (1982, p. 51). Gray's late acclaim in architecture mirrors a wider shift towards valuing women architects' previously overlooked contributions. This newfound appreciation marks a significant, albeit delayed, acknowledgment of women's integral role in shaping modern architecture.

Gray's body of work offers a compelling case study of how gender-specific experiences and sensibilities can profoundly influence and enrich the field of modernism. Her indirect route into architecture became a foundation upon which she built her unique version of modernism. Through her journey, it becomes evident that Gray's contributions to modernism were indeed deeply intertwined with her experiences as a woman navigating a male-dominated profession. This approach into architecture, necessitated by the gender barriers of her time, allowed Gray and her contemporaries to leverage their unique experiences in more traditionally 'feminine' areas of design. Her work, characterised by an exceptional understanding of space and a keen attention to detail, reflect a departure from the often impersonal and grandiose visions that characterised some of her male contemporaries' work. Gray's emphasis on creating spaces that cater to the comfort and aesthetic pleasure of their occupants can be seen as a direct reflection of her gendered perspective, challenging the status quo of modernism with a more inclusive and human approach. Gray's vision was concentrated, focusing on the individual's connection to their immediate surroundings; her deep engagement with the individual's experience of space reflects an approach shaped by the constrained pathways available to women in her time. Directed towards art and interior design, fields traditionally deemed more appropriate for women, Gray's journey through these domains armed her with a unique sensibility. Her version of modernism- rooted in her experiences as a woman, fundamentally informed her approach to design.

In conclusion, Eileen Gray's interpretation of modern architecture was undeniably influenced by her gender-specific experience. Her work serves as a powerful reminder of the untapped potential that lies in recognising and valuing the diverse contributions to architectural development, particularly those from women who have historically been marginalised in the field. Gray's legacy challenges us to reconsider the boundaries of modernism, advocating for a more inclusive and holistic approach that acknowledges the critical role of gender in shaping architectural thought and practice.

Further research could explore alternative pathways that other pioneering women, such as Lily Reich, took into architecture. Investigating these varied routes may illuminate broader patterns and influences on women's contributions to the profession.

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Appendix A: Empirical Review of Architectural Publications

This presents tables from an empirical review aimed at quantifying the recognition of Eileen Gray in architectural discourse over time. The review analysed mentions of "Eileen Gray" in three long-standing architectural journals- 'Architectural Review', 'Architects' Journal', and 'Domus'. These journals were chosen for their historical depth and relevance.

The analysis involved two comparative reviews:

- **Table 1-** Articles from the last ten years compared to all previous years.
- **Table 2-** Articles since 1990 compared to all prior years.

The tables detail the frequency of mentions, providing insights into the shifts in attention to Gray's work and her evolving legacy in the field of architecture.

Table 1-

Architectural review	Articles related to 'Eileen Gray	Total articles <2012	Total articles 2013>	Growth % in last 10 years
2013-present	32	25	80	295
<2013	6			
Architects' Journal				
2013-present	27			
<2013	7			
Domus				
2013-present	21			
<2013	12			

Table 2-

Architectural review	Articles related to 'Eileen Gray	Total articles <1989	Total articles 1990>	Growth % in last 34 years
1990-present	35	3	102	3397
<1989	3			
Architects' Journal				
1990-present	34			
<1989	0			
Domus				
1990-present	33			
<1989	0			

Appendix B: Brief Biographies

Peter Behrens

Peter Behrens was a prominent German architect and designer, a key figure in modernist architecture, and a pioneer of industrial design.

Jacques Doucet

Jacques Doucet was a renowned French fashion designer and art collector, notable for his influential contributions to early 20th-century fashion and for his patronage of the arts, including his support of modernist artists and designers.

Adrienne Gorska

Adrienne Gorska was a pioneering female architect of Polish descent who made significant contributions to modernist architecture during the early 20th century. She played a crucial role in introducing Eileen Gray to architecture by teaching her draughtsmanship.

Amédée Ozenfant

Amédée Ozenfant was a French painter and writer, co-founder of the Purism movement alongside Le Corbusier. His work and theoretical writings, particularly on Purism, played a significant role in shaping early 20th-century modernist aesthetics.

Auguste Perret

Auguste Perret was a pioneering French architect known for his innovative use of reinforced concrete in early 20th-century architecture. His work significantly contributed to the development of modernist architecture.

Charlotte Perriand

Charlotte Perriand was a French architect and designer, renowned for her contributions to modern architecture and furniture design, collaborating with Le Corbusier and Jean Prouvé.

Thomas Raggles-Davison

Thomas Raggles-Davison's work featured in *The British Architect* and *Northern Engineer* for over 40 years, and he was editor of the magazine until it merged with its great rival *The Builder* in 1919. *The Builder* was renamed *Building* in 1966 and is still published today.

Lilly Reich

Lilly Reich was a German designer and architect, known for her significant contributions to modern architecture and furniture design, and for her collaborations with Ludwig Mies van der Rohe.

Appendix C: Additional Comparative Analysis of E.1027 and Villa Savoye

This section contains detailed observations that extend the comparative analysis conducted in Chapter 5: "Comparative Analysis: E1027 vs. Villa Savoye". Although these observations were excluded from the main text, they offer additional valuable insights into the architectural dialogue between Gray and Le Corbusier. These details explore the potential influence of Gray's design features in Le Corbusier's later works, specifically noting the innovations in E. 1027 that precede similar features in Le Corbusier's La Clarte apartment building. Notably, Gray's early implementation of passive solar design principles in E. 1027- such as strategic window placement, site orientation, the use of canopies and an outward opening shutter system that frame the terrace to address solar heat gain- presents a foresight into environmental integration that may have influenced Le Corbusier's approach in his subsequent projects.

Additional Comparative Analysis of E.1027 and Villa Savoye

Despite the canopies and glass doors in E. 1027 deviating from Le Corbusier's Five Points, it's interesting and worth noting that Le Corbusier himself later incorporated similar elements in his future designs. E. 1027, completed in 1926, may have predated such innovations in Le Corbusier's work. Notably, in 1928, two years after E. 1027's completion, Le Corbusier embarked on designing the La Clarte, which opened in 1932.



Figure 21: La Clarte Apartment Building, Geneva, before being adapted. (Photo credit: Fred Boissonnas)

La Clarte features a glass facade that maximises natural light and a minimalistic aesthetic that incorporates several of Le Corbusier's 'Five Points for a New Architecture,' such as the free facade and the horizontal window, which were meant to create healthier and more efficient living spaces. However, the extensive use of glass in the facade resulted in practical issues such as excessive solar gains. This led to high internal temperatures, making the living spaces extremely uncomfortable. To combat this, Le Corbusier introduced the brise soleil. The addition of external shading was incorporated, indicating his growing engagement with passive solar design principles. This adaptation reveals a shift towards integrating functional climate control within the modern aesthetic, a consideration not explicitly mentioned in his 'Five Points for a New Architecture'. This leads to an intriguing question: Could the innovative features of Gray's E.1027 have influenced Le Corbusier and his subsequent architectural explorations?



Figure 22: La Clarte Apartment Building, Geneva, after being adapted. (Photo credit: Eveline Perroud)

Additional Comparative Analysis:

- Villa Savoye stands out as a distinct, almost autonomous structure, while E. 1027 is designed to blend and interact more intimately with its coastal environment and immediate landscape.
- Gray's design is highly personalised, catering to the specific needs and preferences of the user. In contrast, Villa Savoye is a true demonstration of Le Corbusier's architectural principles.
- Villa Savoye's open plan reflects Le Corbusier's architectural ideology, whereas E. 1027's layout, while still modern, is more about creating intimate, versatile spaces.
- While both designs emphasise a connection to the outside, Villa Savoye does this through its elevated form and horizontal windows, whereas E. 1027 achieves this through its integration into the landscape and strategic window placement.
- Villa Savoye is a bold statement of Le Corbusier's modernist ideals, almost a three-dimensional manifesto, whereas E. 1027 is a subtler, more nuanced exploration of modern living spaces.

This discussion emphasises how Gray's personalisation of space contrasts sharply with Le Corbusier's more universal approach, highlighting their differing perspectives on modern architecture. This additional material supports the dissertation by illustrating the nuanced interactions between Gray's and Le Corbusier's architectural philosophies and their respective implementations in design. It adds depth to the analysis of how both architects integrated functionality and aesthetics into their projects and proposes a potential influence of Gray's work on Le Corbusier's evolving architectural style.