

Modernism and the Gender Trouble: Techno-Utopia and Gender Politics in the 20th Century Design

Suriyaporn Eamvijit

Faculty of Liberal Art, Thammasat University, Pathum Thani, Thailand

Corresponding author e-mail: suriyaporn.e@arts.tu.ac.th

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Abstract

Among prominent figures in the architectural field of the twentieth century, Le Corbusier was undoubtedly the most renowned. His key writing *Vers Une Architecture* (Towards a New Architecture) was received with praise and has been regarded as the manifesto of modern and contemporary architecture ever since. His projects have become symbols of the end of the old regime and the possibility for a new democratic society. However, his revolutionary mission apparently diminishes gender issues. Although there is extensive research about Le Corbusier's works, only a few investigated the gender aspects of his works or incorporated his artistic works into the analysis. Among several studies on politics of gender in modernist architecture, what is still lacking is the analysis of Le Corbusier's works that are not architectural. This paper aims at examining the relationship between Le Corbusier's architectural as well as his artistic works and gender politics through the lens of Henri Lefebvre's spatial theory and feminist theories. The paper focuses on the modernist aesthetic, technology, and gender politics in spatial arrangements and designs, especially in the domestic sphere, that are discussed mainly in Le Corbusier's *Towards a New Architecture* and his poetry collection *Poem of the Right Angle*. An analysis of spatial representations in both works reveals how the architect's obsession with purist functionalism and the glorification of technology propagate the conventional concept of femininity and reduces female subjects to a unit of domestic labor. On the other hand, the paper contrasts the work of Le Corbusier with that of Margarete Schütte-Lihotzky to demonstrate how the very same aesthetics can be a design that favours women when it is appropriated by female professionals who think about equality both in terms of class and gender.

Keywords

Modernism; Le Corbusier; Gender; Politics; Domestic Space; Feminism

Introduction: Le Corbusier's Domestic Space and The Demarcation of Gender Roles.

In order to comprehend the grand project of Le Corbusier and his conception of femininity, one must take into account his works beyond architecture. According to William Curtis in *Le Corbusier: Ideas and Forms*, Le Corbusier wished to radically change the mentality of people after the first world war by creating a new environment that would reorder human perception. These ideas are reflected in his canon *Towards a New Architecture* and his collection of poetry *Poems of the Right Angle*. Despite the genre differences, the two texts connote the architect's attempts in pointing out the condition of living as a "poetic" act. Architecture, according to Le Corbusier, is not a mere physical object, but rather part of human experience. Therefore, the emphasis on non-tangible entity and creativity in a built environment transforms architecture into "architexture" (Digonnet, 2017) in which its order and construction grammar opens to subjective interpretation.

This intertwining of language, human perception, and the visuals in architecture has rendered architecture a site of power relations and the examination of Le Corbusier's Modernist projects unfolds gender oppression in the avant-garde revolutionary ideals. Even though many poststructuralist feminist scholars might contend masculine and feminine division is another form of essentialism that the contemporary feminist movement has acknowledged" overtaken for decades, many argue that in order to unlearn the gender dichotomy, one must revisit the roots of the demarcation in the past. Christine Battersby in her essay "The Architect as Genius: Feminism and Aesthetics of Exclusion" emphasises the need to revisit the aesthetic and cultural division since the embedded aesthetic defines female as "being allocated a non-privileged position in a social nexus of power on the basis of the way one's body is perceived. Such an allocation involves, of course, a number of complex equations (self-image versus other-image) and difficult borderline cases (e.g., transexuals)" (12). Therefore, the analysis of what constitutes male architecture is still relevant, if not crucial, to contemporary gender studies. Furthermore, the exploration of gender politics in design can help elucidate the social dynamics that operate behind the conceptualisation of space, which is commonly understood as natural and thus apolitical. Modernist architecture has always been considered the most masculine architecture because of its cold, functionalist design that attempts to eradicate tiny decorations. Harry Wesse, an American architect in the twentieth century, remarked that Modernist architecture represents the virile power of modern society:

Buildings are masculine and aggressive. You have to take the long view and assume they will last: therefore, they cannot be pretty - the adjective I least like applied to architecture... A building should be handsome, elegant, strong, lean - beauty is too vague an attribute. A building comes from the inside out and has to be guilty... structure is the thing (qtd. in Battersby 10)

The masculinisation of a building is also what Le Corbusier adored. His Modernist aesthetic greatly admires the machine, a tool that he believes will drive human civilisation forward, which is heavily associated with male reproductive power. Le Corbusier's *Towards a New Architecture*, inspired by his obsession with technology, seems gender neutral on a surface level since it essentially eliminated human figures in photos and drawings in the book. The focus on materials and the built environment seemingly presents his vision as universal for everyone. However, a closer look into his works reveals that his utopian desire, a revolutionary architecture that helps avoid violent revolutions, is designed to serve men, who found themselves "still disconcerted, still inside the old hostile framework. This framework is his home; his city, his street, his house, his apartment rise up against him and, unusable, prevent his tranquil pursuit of the organic development of his existence" (307). The erasure of women's desire is stark in the textual description of *Towards a New*

Architecture. In the book, Le Corbusier blamed the failure of the domestic sphere in providing comfort as a reason for men's obsession with public lives: "Our houses disgust us; we soon need too many sanatoria. We are unhappy. Our houses disgust us; we flee from them and frequent cafes and dance halls; or we gather glum and skulking in houses like sad animals. We become demoralised" (94). Like many Modernists and Futurists, Le Corbusier believed in masculinity as an energy that drives civilisation. In the twentieth century, the urgent need for domestic reform originated from the new relationship between men and work. He claims that the stability of the same old order in the previous era was secure because "[men] worked at home in a small shop and his family was around him. He lived like a snail in its shell, in a home made to his exact measure; nothing prompted him to change this state of things". However, the revision of the design of domestic architecture was needed since "industry has led to mass-produced parts; man and machine work in close collaboration" (295). The Marxist sentiment towards male labour does not extend to feminine labour in the house. In fact, the existence of women in Le Corbusier's view must be fainter than that of men. Modern men are associated with strong light. They must have "sun, heat, clean air, and clean floors; [they] have been taught to wear a bright collar". In contrast to the bright illumination of masculine power, Le Corbusier asserted that the light and the whiteness of women must be like "delicate underclothing" (298). Furthermore, the housing manual Le Corbusier listed in the book clearly illustrates how the architect associated female figures with the archaic world. He repeatedly stated in the manifesto that the eradication of unnecessary decorations is crucial in creating a future utopia as decorations represent "the bad taste of the great kings" (172) or the oppression from the ancien regime. The prioritisation of rational practicality, on one hand, signals the attempt to create a classless society. On the other hand, the importance of erasure of decorations stated in the manifesto parallels the erasure of women in creating built environments: "Men who are intelligent, coolheaded, and calm; they are what's needed to build the house, to plan the city" (176). This statement reveals the erasure of women both as an active domestic builder and as a politically active citizen.

Domestic Design and the Problematic Scale: The Modulor

The housing manual of Le Corbusier propagates misogynist discourses not only in the way a house should be arranged but also the scale of the house. The calculations of fixed size and scale in the house turned the domestic space designed by Le Corbusier into what is termed by Henri Lefebvre as "representations of space", which refers to the type of space governed by a plan or order. This space of number and grid, on a surface level, seems to promise a standardised life in which happiness and convenience are guaranteed. However, representations of space, Lefebvre argues, is never democratic space. It is embedded with dominant ideologies manifesting itself by arranging or adjusting the body and the mentality of the spatial user (49). The oppression of the hegemonic discourse over the body in spaces does not happen only in the public realm. For Lefebvre, every space will only obtain meaning through the conceptualisation of many agents. The domestic sphere is not apolitical; it is a site where the designer imposes the expected gender roles through spatial control of the house. Among myriads of projects by Le Corbusier, his famous contribution to modern and contemporary architecture is what he coined as the Modulor. Attempting to standardise design across the globe, Le Corbusier proposed a model of a universal human inspired by Leonardo Da Vinci's famous Vitruvian Man. After discussions with historians and mathematicians, he incorporated the golden ratio and the proportion of average western men to design a "range of harmonious measurements to suit the human scale, universally applicable to architecture and to mechanical things". The invention of the Modulor has brought applause to

the architect as he managed to propose a universal solution to the betterment of post-war society. The meticulous calculation of standard human size was deemed efficient and productive as it would certainly reduce cost and time for production of housing materials as well as the construction. This idea, however, was criticized in the twenty-first century as dangerous. Buzzi (2017) in “‘Human, All Too Human’: A Critique on the Modulor” argues the concept of the Modulor is fascist and eugenic as it attempts to totalise the body of the human:

The Modulor Man is a healthy white male enhanced by mathematical proportional gimmicks ‘of nature’, such as golden ratio and Fibonacci series. He represents the normative and normalised body around which Le Corbusier conceived his designs. As a result, most modern architectural forms are all tellingly calibrated on a similar standard, the healthy white male body.

With the concept of the Modulor as pivotal to his Modernist ambition, Le Corbusier’s utopian world is a place where space is produced according to the male body. The size and scale of a perfect place must be able to provide comfort and happiness to men, a belief Le Corbusier repeatedly stressed throughout *Towards a New Architecture* as he felt that the root of all evil and political violence in society can be solved with architecture, or to be more specific, a house: “The home is hideous, and the mind has not been educated for so many free hours. So, we can indeed write: Architecture or demoralisation, demoralisation and revolution” (297). Unfortunately, the irony of Le Corbusier’s grand project is that the attempt to liberate humanity from the old power structure has resulted in the opposite. The liberation and facilitation have turned into the integration of work into domestic life. This aspiration, in fact, was to reduce the alienation of the worker at work. But it ironically puts domestic life into the realm of work, with male and female members working separately in the house. His focus on the right place at home advocates a stronger division between gender and compartmentalisation of the roles. The definition of a house and a room in *Towards a New Architecture* seems to assign a fixed and rigid meaning as both must contain “a certain number of compartments intended for cooking” and “for keeping everything in the right place” (165). The focus on the “right place” and the calculated arrangement reveals another dimension of space through the Lefebvrian lens. Lefebvre explains a certain type of space under the logic of capitalism as “abstract space”. Lefebvre coins the term abstract space to parallel with a Marxist concept of abstract labour in which values of the labour are not intrinsic and concrete, but rather alienating and abstractly dependent on exchange values: “Capitalism and neocapitalism have produced abstract space, which includes the ‘world of commodities’, its ‘logic’ and its worldwide strategies, as well as the power of money and that of the political state” (p.53).

“Eyes that Do not See”: The Significance of Look in Le Corbusier’s Photography as (Representations of) Masculine Space

The architect’s antagonism towards women does not only lie explicitly in the architectural manuals and plans. It also manifests itself symbolically through artistic means such as photography, poetry, and paintings. Besides his architectural manifesto and his desired scale of humans, Le Corbusier’s obsession with managing the domestic sphere to facilitate modern men becomes more clearly-evident when the “trace” of women in the photos of his architecture is analysed. The illustrations and photos of Villa Savoye, the most important house among Modernist architect in the twentieth century, represents Le Corbusier’s latent aversion to women by “representing a new reality about the ways in which he used [the house], not only to represent, but rather, as modern advertisement as done, to construct a text” (71). The absence of male and female figures is

oftentimes replaced by objects or clothing that belong to a specific gender such as a purse or a lipstick in a kitchen, while a male coat and a cigarette box were put in a more “public” area of the house. By doing so, Le Corbusier turns the domestic space into Lefebvrian abstract space in which family members are reduced to domestic workers, working separately in compartmentalised space, and fragmentedly represented by a gender-based commodity. Moreover, the arrangement of the kitchen also reveals the erasure of the lived experience of women in the female sphere. Photographs of a kitchen at Villa Savoye and the Villa at Garches in Figures 1 and 2 are aesthetically eerie not because of the absence of the user, but also because of the careful placement of the kitchenware. According to Carranza, the orderly arrangement of the objects works similarly to pornography, which “[uses] fetish objects that allow the viewer to enter safely into the feminine space, architectural or visual, by disavowing the threat or the memory of castration” (78). In an uncannily empty kitchen, the reader will see objects that are considered “phallic” or represent masculinity such as an electric fan, resembling aeroplane propellers, or a fish, “a standard metaphor, according to Freud, for the male organ” (78). Thus, the representation of the female domain is tamed by the architect to accommodate the male viewer.

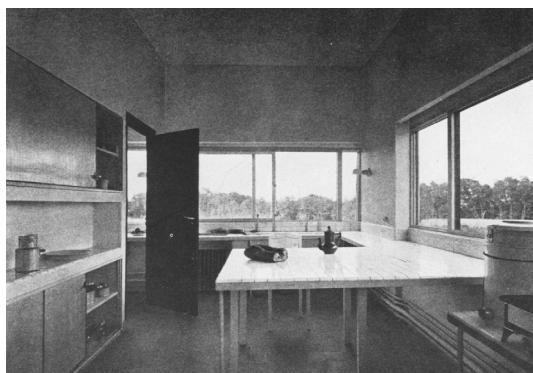


Figure 1 A kitchen at Villa Savoye (© FLC/ADAG).



Figure 2 A kitchen at Villa Stein (© FLC/ADAG).

The emphasis of the male power is also apparent in the composition of female figures in the photographs. The architectural and the interior photographs of Le Corbusier connote the male gaze. Tiziano Aglieri Rinella argues that what sets Le Corbusier’s architecture photos apart from those of other architects is the sense of uncanny. The free floor plan and eerie promenade is similar to the disorientation the reader of Modernist poetry may feel. He defined the technique “architectural enjambments”, which arouse the visitor and looker’s sense of astonishment from defamiliarization of a domestic sphere. The free plan of Le Corbusier’s houses astonishes, if not shocks, the visitor. The vast, empty area of the house, according to Rinella, offers a feeling of sublime. However, the sublime spectacles, which highly resemble Edward Hopper’s paintings of his wife in a domestic sphere, assign the role of a voyeur to the reader with female figures as the object of gaze. A scene from a movie, directed by Pierre Chenal and Le Corbusier, portrays a woman walking in Villa Savoye with her back facing the camera (Figure 3). Colomina (1992) in “The Split Wall: Domestic Voyeurism” described the confinement of the woman in this scene in which her body is “fragmented, framed not only by the camera but also the house itself, behind bars” (103).



Figure 3 A shot from *l'Architecture d'aujourd'hui* (© FLC/ADAG).

Photographs of Le Corbusier's model houses apparently undermine an objective of his core design principles. Even though the architect seemed to highlight the significance of creating free area, the spatial division between the two genders has become starker. In one of his model houses called "L'Unité d'Habitation" (Figure 4), Le Corbusier stated he wanted to revolutionise the kitchen since it is regarded as the heart of the home, so "The kitchen in Marseille should become the centre of French family life," Regardless of how liberating it may sound, the way Le Corbusier presented his project in his photography reveals his aversion to women in his Modernist ideals.



Figure 4 A photograph of an interior of Unité d'Habitation (© FLC/ADAG).

Female figures in Le Corbusier's architecture photography usually turn their backs to the camera or look sideways, a trope commonly used in traditional nude, oriental paintings or baroque arts in the eighteenth century. Carranza (1994) explains that the design and gaze has been the focus of architecture since the Renaissance era. He analyses Leon Battista Alberti's treatise *I Libri della Famiglia* and stated that the spatial division according to gender is heavily associated with light and ways of looking. Women are encouraged to look inwards in the house instead of looking out because "the female gaze of look is equated with spying and is therefore condemned" (71). As a result, the Freudian scopophilia or the pleasure from seeing is, most of the time, a male privilege. It does not function as a psychological sublimation of a desire for actual intercourse into the pleasure of gazing. Instead, the gaze represents asymmetrical power between the gazer and the object of the gaze, which is subjected to "a curious and controlling gaze" (71). In Alberti's treatise, which is a foundation of spatial design principles in western civilisation, female scopophilia is considered a perverted

taboo for a lady, making the interior design in domestic buildings reinforce the demarcation between femininity and masculinity in space. In Le Corbusier's photography, the visitor and the reader of the photos take the role as a male voyeur or an imaginary flaneur whose gaze travels to the domestic realm and subjects the female figures to their own pleasure and desire. Apart from a voyeuristic position of the looker, female figures in Le Corbusier's domestic photographs serve as a guiding line to a vanishing point. The natural yet organised domestic positions in the photographs resemble eighteenth century picturesque conventions in which the natural world is arranged as guiding lines to a vantage point, which are oftentimes man-made creations or human figures in the painting while the natural world "is often a vital but subsidiary feature" (117)

The use of female body to highlight his creation is also seen in a photograph of his furniture (Figure 5). Carranza (1994) used an example from a photo of Le Corbusier's Chaise Longue, an iconic long reclining chair. In the photo, Le Corbusier let a female model recline on the chair with her face turning sideways and with her leg raised so that the curve of her body aligns with the curves of the chair. This position not only invokes odalisque paintings such as that of Francesco Paolo Michetti, but also stresses his attitudes towards female bodies as a tool to highlight his artistic projects. Therefore, the sublime impression among the visitors in a Modernist house is created by effacing female figures and transforming them into part of the background, or the natural world according to the picturesque trope (Figure 6). Betsky (2013) succinctly commented on the sexist sentiment of one of the greatest architects in history, suggesting that his presentation of his architectural projects "is the perfect embodiment of the architect as demigod who decrees autonomous structures made by men (not women) on a supine earth. Lifted on pilotis and replacing the messy reality of nature with an artificial one on the roof, his structures delight in their own complexity and muscular ingenuity"

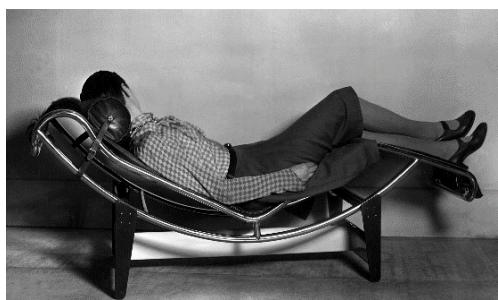


Figure 5 Charlotte Perriand on a Chaise Longue
(© FLC/ADAG).



Figure 6 A balcony of the Immeuble Clarte.

The Poem of a Certain Angle: Gender Division in Le Corbusier's Poetry

Although there are a few works that study the ideologies and discourse underlying Le Corbusier's architectural projects, the analysis of his fictional works is extremely scarce. Creative works, in fact, are crucial in the production and the conception of space. Le Corbusier, like many Modernists at that time, worked across various artistic means. He was an architect, a designer, a painter, and a poet. One of his famous literary works is a collection of poetry and a series of paintings called *The Poem of the Right Angle* (Le Poème de l'Angle Droit). The main theme of the poems is the human relationship with the natural world. [Walker Thisted](#) in his article "The Poem of the Right Angle: Aesthetics Between Kant and Hegel" argued that the collection of poetry was created out of "the artist's fear of not being understood" (1). However, the comparison between Le Corbusier's poetry and the sublime accentuates his aversion to women. [Thisted](#) explains that *The Poem of the Right Angle* demonstrates the anthropocentrism in the concept of sublime in Le Corbusier's work that

“convey(s) to us how work is done by man through the positioning of man on a structure of his own creation in relation to the earth and sky. The position of man in the picture that Le Corbusier presents takes a position on how man might value the natural condition that he finds himself in” (3). The problem with Le Corbusier’s point of view towards human and nature relationships is not only that it is based on human domination over the natural world, but also that this domination can solely be undertaken by men.

The poetry collection was written in a style highly similar to Futurist poetry, which is characterised by the abolition of syntax, the use of enjambment and spacing, the onomatopoeia, and the use of analogy. Moreover, Futurist poetry and Le Corbusier’s creative works share a very core value - the power of revolutionary art to radically transform the perception of people and society in the twentieth century. While Filippo Tommaso Marinetti wrote a renowned Futurist poem *Zang Tumb Tuum* to poetically correspond to his Futurist manifesto, *The Poem of the Right Angle* must be read in tandem with the architectural manifesto of the architect. Both men asserted that the use of mellifluous language in poetry reflects the obsession with the bygone era and beauty. The despised language antiquity, according to both Marinetti and Le Corbusier, resembles the aesthetic of conventional European buildings whose decorations and curves are “feminine”. Consequently, the destruction of meter and poetic form is necessary. *The Poem of the Right Angle*’s unconventional rhyme schemes, however, lapse into the traditional when it comes to the discussion about a human-nature relationship, the motif ingrained in his photography and architecture. Firstly, the ability to “creatively” arrange the natural world to insinuate the sublime and the picturesque is exclusive. In other words, the capability belongs to those who are deemed as a “Romantic genius”. In *Poem of the Right Angle*, the introductory three poems are similarly titled “Environment” and all discuss the significance of solar energy in human life. However, the beginning of the first poem “A.1 Environment” highlights the power of men as the possessor of the world: Men may affirm this/ beast also/ and the plants perhaps/ And on this earth alone” (1).

Men’s affirmation power alludes to the Bible and at the same time is tied to one aspect of genius. Battersby noted that the image of a genius since the Enlightenment is “a pragmatic notion” that a genius is a person whose work “marks the boundary between the old way and the new way” and leaves “lasting value and significance”, which includes the power to “give rule” (10), thereby enabling men to assimilate the godlike power of naming and creating. Throughout the collection, Le Corbusier shared a similar stance with the Futurists in glorifying man-made scientific innovations as evidence of human as the Creator. In “A.1 Environment”, the sun is depicted as the master as well as the visitor who “enters our house” (1). The visitor metaphor subverts the conventional notion of the sun as the indispensable almighty source of all energy. Humans in the twentieth century progressed to the point of recreating this solar energy and eventually succeeded in claiming the mastery over the earth. This pride is emphasised in the poem when the sun departs at the end of the day and “the lamps are lit up” (1). The juxtaposition between the sun “setting good evening” and the illumination of the man-made lamp signifies the equating of human power and that of the sun, or in other words, that of God.

However, this power is not innate in every person. Poems of the Right Angle excludes the creative sensibility both from the philistine and the female sex. Le Corbusier’s belief in binary division was firm in the poems. Although the use of enjambment and free verse connotes the break from conventional division and order, the separation of the two sexes in terms of binary oppositions is stark. In “A.2 Environment”, Le Corbusier shifted the focus from the sun to the water and traditionally associated the element with the feminine by calling the sea “daughter of the droplets and mother of vapours”. The connection between women and the water is common, if not cliché, but Le Corbusier appropriated this metaphor to affirm his phallocentric Futurism by

contrasting the feminine water with the masculine light: “Solar rays powdery mists/condensation gaseous cloud” (2). With the idea of illumination connoting godlike creative power, the discussion of the influence of light in transforming water into different forms echoes the notion of gender and the genius.

Le Corbusier went further in the poem “B.4 Mind”, illustrating that men are capable of conquering the sun:

The solar clock and calendar have given
architecture the ‘sun-breaker’
Placed before the glass surfaces
of modern buildings. An
architectural symphony
composed with this title:

“The house, daughter of the sun” (8)

By associating the architectural work with the symphony, Le Corbusier considered an architect as an almighty watchmaker, whose exclusive power can create an intricate work with a complex system, the way God created the world. The image of the solar clock and the calendar too highlights the idea that man-made inventions can “break” the natural world. This theme is more explicitly discussed in “B.2 Mind”, which celebrates men’s discovery of mathematics: “To place at the tips of one’s fingers above all in one’s head an agile instrument capable of swelling the harvest of invention Clearing the path of thorns” (6).

The first line of the poem is the verbalisation of the act of thinking, which can multiply the “invention” and bring order to the chaotic natural world. Moreover, the emphasis on fingers and human intellect certainly reminds the reader of the Renaissance painting “The Creation of Adam” by Michelangelo depicting Adam reaching his hand towards God, who is surrounded by the entourage of archangels in a brain-like shape. The following lines also repeat the key idea of human intellect as a holy tool by associating mathematics with Prometheus fire: Sparks stolen from the flame the Gods nourished to make the world play...Mathematics!” (6). By linking men’s intelligence with Prometheus, Le Corbusier portrayed a genius man as holy and rebellious while women are placed in the unkempt wilderness. The similar opposition between the natural world and a holy human can also be seen in “A.4 Environment” in which the narrator observes the natural world from the bird’s eye view: “From a plane one sees [rivers] teeming in families on the deltas and/ estuaries of the Indus the Magdalena or the margins of California. Ideas too grope their way tentative search in all directions to the limit fix” (5).

The contrast between the boundlessness (fluidity) of the water and the fixed boundaries (or the hardscape) of the banks parallels the contrast between the shapelessness of femininity and the order of masculinity. The word “gropes” also connotes a sexual activity, which suggests the masculine genius will take up an active role to search and control the feminine flow. Furthermore, the repetition of the word “daughter” to signify a house and water fixes the architect’s association of femininity with an incubator or a passive product, rather than the creator, who has the power to transform and modify these entities. A genius, according to Battersby, cannot be a woman due to the fact that her body is innately passive. She suggested that the idea of male procreativity is ingrained in the word due to an Aristotelian belief that in the human reproduction process, women serve as an incubator, but not the formative force since they lack the heat to produce semen and “to develop the unconcocted blood” into a human form. (12). Therefore, genius as the innate creative force is bestowed only on men, while women are relegated to being a passive arena or a setting for male active

productivity. The water metaphor thus serves as a natural imagery to emphasise the lack of creative energy in women and hence the need of genius power to transform the shape as well as to arrange the order and the position while men are assigned with the capability and responsibility to arrange the natural world and assimilate the godlike task of creating works out of nothing. Men's affiliation with power is underlined in "E.4 Characters" in which artistic sentiments are compared to an outburst of energy: "to make creature. To be full to full oneself to have filled oneself to bust exult icy cold amid the complexities become a happy young dog. Become order" (18).

"C.2 Flesh" is the longest poem in the collection and deals with femininity as the central theme. The title of the poem obviously placed women in the realm of the body, the idea extensively elaborated in the poem. In contrast to men, whom Le Corbusier put in the sphere of creativity and talents, women are portrayed as passive, if not brainless, at the beginning of the poem: "Women always somewhere at crossroads proves That love is a question of fate of number and chance" (11). The locus of woman, in this poem, is clearly a laboratory, a field for experimentation of male creative and intellectual power. The poem later contrasts the role of men with that of women in a relationship by underlining the agency of a man: "In the hope of seizing my chance I held out my hand Love is a word without frontier. It is also it is moreover a human invention an attempt an adventure" (11). Despite the irregular grammar of the section, the autonomy of men in a relationship is demonstrated by the act of reaching out. Love, moreover, is linked with the realm of intellect as it is considered a human invention. The reduction of woman into mere flesh is also stressed in line 34, which describes the act of sexual intercourse as "sublime accomplishment" that "intervenes" female body in Futurist fragments:

carried beyond
all
diurnal
reality
admitted
to the heart
of an
illumination (12)

Human's sex is illustrated as an illuminating energy that exceeds the natural light. But the source of this energy can only originate from male virility, a notion similar to "A.2 Environment", in which clouds cannot be transformed into raindrops if there are no "solar rays" that move the vapour mass and makes the clouds "each other rub up against each other thrust/vertically horizontally" (3).

Since Le Corbusier added illustrations alongside each poem, it is crucial to examine the visuals as another form of narrative. The paintings, representing the natural world and the body in a Futurist manner, are utilised to underline the importance of gender division as part of the universal order. Fragmentation as a style of cubism is used to dissect the female body into smaller parts. For example, "C.4 Flesh" contains a portrait of a woman whose neck and breasts are torn apart, supported by the hands (Figure 7). The physical fragmentation undermines the agency of the female figure over her own body as the different parts are not connected and thus can be subjected to someone else.



Figure 7 C.4 Flesh

The separate hands in the illustration are ambiguous. The colour of one hand is the same as that of one breast, while the other hand shares the same colour with the background, not with any part of the female body. Therefore, these hands can be viewed as the hands of the woman herself or the hands of another person who does not appear in this frame. The penetration of the hand is the strongest motif in the illustrations of the collection. For example, the illustration of “A.5 Environment” is two hands joining together while the illustration of “C.2 Flesh” is a hand hovering in the sky covering the earth and a naked woman. The depiction of a hand functions as the glorification of the architect as a godlike vocation and concurrently emphasises the masculine creative power. The significance of hands is discussed in several poems including “C.1 Flesh.” In “C.1 Flesh”, the ability to draw and design is compared to the holy power to create: “Because I drew it and redrew it the ox- pebble - and root- became a bull. And to equip its force with scent here is a dog, alert” (10). The shapeshifting characteristics of the drawings are a result of the power of the artist over his work. His creative prowess lies in the modification of the works and also the way these works are given “force” or energy. Similarly, “E.4 Characters” announces the dictum that “to make architecture is to make a creature” (18)

This idea is stressed at the end of the collection in the last poem “G. 3 Instrument”. The poem juxtaposes the image of an architect with God. The beginning of the poem seemingly pays homage to God as the almighty artist: “With Carbon we have traced the right angle the sign It is the answer and the guide the fact an answer a choice” (19). However, the fragmentation and the enjambment of the poem invites the reader to interpret the work differently. By beginning with the word “carbon” followed by a phrase “we have”, Le Corbusier left a vast space for interpretation of the word carbon here. If it is read alongside with the third line, the word carbon would definitely signify a pencil or a carbon paper, which are essential tools for an architect. The act of “tracing” in this poem connotes the way artists can only imitate or trace the work of God, who is the real artistic master. However, the word carbon alone can also signify coal, an energy source that represents industrialisation and the machine, which is considered human victory over nature. The ambiguity is cemented at the end of the poem, which seems to depart from the first lines. “But conscience makes it a sign It is the answer and the guide the fact my answer my choice”. (19) The focus of the end of the poem is no longer the act of tracing, but rather the “conscience”, or the agency of the artist. The shift from “an answer a choice” to “my answer” and “my choice” is a strong affirmation of human agency and autonomy over his life and the natural world.

The depiction of hands in the collection not only symbolises the pride of the artist, but also the superiority of the male artist over women. The hands in “C.3 Flesh” are described in a sexual way: “Hand kneading hand caressing hand brushing. The hand and the seashell love each other” (11). The brushstrokes of the artist are linked with the kneading and caressing of the lover. The image of a seashell as another lover is used repeatedly throughout the collection as a symbol of feminine body with illustrations of a female body aligning with the silhouette of a seashell. Female figures in this collection, however, are depicted without hands or with hands having incomplete or defective fingers. The incompleteness, again, rejects female potential as a creator. The lack of power in women can be seen in the contrast between the portrayal of female and male bodies in the poems too. Male figures such as those in “A3. Environment” or “B.3 Mind” are represented as complete, erect, and able bodied, aligning with Le Corbusier’s model of the Modulor. In “A.3 Environment”, the Modulor figure in the illustration is used to underscore the affirmation of life force in the poem: “But I am standing straight! since you are erect you are also fit for action. Erect on the terrestrial plain” (3). The ability of a human to stand straight is commonly perceived both as human’s position as the zenith of the evolutionary line, and as the holy creature whose proximity to God is the closest. The erectness erection in the poem is visualised with the Modulor whose male genital is highlighted by the horizontal line. The position of the genital in the illustration reflects the significance of male virility as the centre of all life energy, contrasting with the passive femininity as described at the end of the poem: “this is the right angle Vertical facing the sea there you are on your feet.” (3). The sea in this poem is not described as a powerful entity, but rather a backdrop that affirms male power over the natural world or a creative material for the genius.

In contrast, all female figures in *Poems of the Right Angle* are depicted as horizontal. Some are portrayed as lying on the ground such as the figures in “A.4 Environment”, or “C.5 Flesh”. Despite the fact that there are some standing figures in the collections, those figures are portrayed as crawling, bending, or in a distorted body such as bending figures in “C.2 Flesh” or “C.3 Flesh”. The crawling and bending of these figures can be traced back to Renaissance conventions of the depiction of females. Both mannerist art during the Renaissance and the paintings in Poems of the Right angle serve as the expression of the male confidence as the sole “measure of all things”. The erasure of female genital, moreover, can be regarded as the aversion towards the organ as an abject and a symbol of atavism. Renaissance nude paintings, despite the love of a curvaceous female body, tactfully hide female genital by distorted postures while explicitly revealing male genitals. These artistic conventions, thus, is visualisation of cartesian division in terms of gender which “place” women in a fixed space of the natural world, the passiveness, and the abject. The praise of femininity in these paintings as well as the Modernist architecture is allowed to a little extent, in which what constitutes femininity must be arranged and toned down, while masculine aesthetics must be conspicuously placed in public.

Revising History, Redefining Aesthetic, and Retrieving Female Modernist Voices: The Kitchen Question

One problem that may arise from the link of Le Corbusier’s sexism and the Modernist design is the universalization of the movement. The notion of gender politics in the Modernist movement has later led to a broader question regarding the ontology and historiography of the movement itself since it coincided with many transgressive gender movements at that time.

One shared characteristic of the efforts of systemization and definition of modernism and the avant-garde, in spite of many differences and even conflicting interpretations, is the emphasis on self-reflexivity, self-criticism, or, as Matei Calinescu puts it in slightly different terms, “self-consciousness” (Scuriatti, 2019).

Thus, it is painstaking, if not impossible, to explain modernism in one framework. Although it is commonly assumed that modernism entails the glorification of machine and technology that is heavily associated with masculinity, recent scholars propounded that modernism is too multifarious and thus should be considered not only across the disciplines, but it should also be considered across regions and moments in time. Rapid technological and economic growth rendered, to use Karl Marx's words, “All that is Solid Melt into Air”. The destabilisation of what is deemed solid and unchanging includes the demarcation of gender roles. Despite gender exclusion in the professions, some female designers in the twentieth century attempted to affirm their agency by appropriating trends and discourses in the male-dominated design circle at that time. Among some innovations in the first half of the twentieth century, Frankfurt Kitchen by Margarete Schütte-Lihotzky has become an icon of modernist domestic design and later a controversial site to interrogate gender roles and the voice of women in the twentieth century.

Frankfurt Kitchen was a pioneer of what is called “a modern kitchen”. According to Oldenziel and Zachmann (2009). in *Cold War Kitchen: Americanization Technology and European Users* (2009), Lihotzky's kitchen

embodies the ideology of the cultures to which it belongs...they are assembled into a unified, modular ensemble and connected with the large technological systems that came to define the twentieth century. Electrical grids, gas networks, water systems, and the food chain all come together in the floor plans that connect kitchens to housing, streets, and infrastructures via an intricate web of large technical systems (p.3).

The integration of technology and infrastructure into the domestic sphere has transformed the kitchen into a site for “Technopolitics” (Oldenziel & Zachmann, 2009) in which many political strands embedded in each technological advancement and urban facilities are intertwined in the personal space. The political aspect of the kitchen is stressed at the beginning of the design. Frankfurt Kitchen was designed by Margarete Schütte-Lihotzky for Römerstadt Social Housing complex in Frankfurt, a project designed by Ernst May under the umbrella scheme of New Frankfurt. New Frankfurt (Neues Frankfurt) refers to an affordable housing programme initiated by mayor Ludwig Landmann during the Weimar Republic period. The project was suspended after the rise of the Nazis and the ensuing fear of Soviet Communist influence. Ernst May was stigmatised as “Lenin of German Architecture” while Lihotzky moved to Moscow and later Istanbul. The right-wing backlash marginalised Lihotzky from the design discussion in the first half of the twentieth century and her oeuvre was considered a threat to the value of traditional German “Hausfrau”. Heinrich Hauser, a German writer who supported the American ideology, criticised Frankfurt Kitchen as the epitome of a “Spartan Kitchen” from an impoverished Europe. The standardisation and compartmentalisation of design is hostile to female members of the family and would eventually turn the most beloved German Hausfrau to the Trümmerfrau or the women of rubble, referring to women who helped with the reconstruction of the war-torn cities.

Another political impact of the Frankfurt Kitchen can be seen in the model kitchen associated with many Soviet mass housing projects during the Cold-war, for example as showcased during the 1958 U.S.-Soviet Cultural Agreement. The American and Soviet kitchens at the exhibitions were not merely a display of design marvel from each country. They represented the advancement of the two superpowers in the midst of the

ideological battle between capitalism and communism. The kitchen competition had two symbolic implications, the competition of technological advancement and the competition of the women in each nation. The most famous photograph of the expo was that of Vice President Richard Nixon and Soviet First Secretary Nikita Khrushchev having a heated discussion at a model kitchen (Figure 8) in which Nixon claimed that “after twenty years, many Americans want a new house or a new kitchen. Their kitchen is obsolete by that time.... The American system is designed to take advantage of new inventions and new techniques” (O’Halloran, 1959)



Figure 8 Nikita Khrushchev and Richard Nixon in Moscow.

However, the debate on the implications of the kitchens lacked two important factors. The voice of the users, who were mainly female, and the voice of the designer or Lihotzky herself. This poses a new challenge in the way one thinks about art and design history. Since the majority of the designers and policy makers were male, the narrative revolving around society and culture was heavily phallocentric even though the purpose of the kitchen debate was to find the better kitchen model for women. This silencing of female subjects turned women involved in the 20th century kitchen design into “the subaltern”. The word “subaltern” originally refers to “any officer in the British army who is lower in rank than a captain” (“subaltern”, 1541). This term was initially used in a political context by Marxist theorist Gramsci, (1992) in *The Prison Notebooks* (1929-1935) to refer to the proletariat: “Subaltern classes are subject to the initiatives of the dominant classes, even when they rebel; they are in a state of anxious defense” (Guha Prison, 21). Afterwards, this term was more widely known during the 1980’s from the emergence of a group called the Subaltern Studies. The founder of the group, Ranajit Guha, defined the Subaltern Studies as “a name for the general attribute of subordination in South Asian society whether this is expressed in terms of class, caste, age, gender and office or in any other way” (qtd. in Louai 6). The members of this group were historians and scholars who practiced new ways of reading Indian history in order to restore the subaltern, whose roles had been erased from the history of India’s struggle for independence. This project to resurrect their voices was later criticized by Spivak (1999), a member of the Subaltern Studies, in “Can the Subaltern Speak?” (1999). Spivak criticizes the paradox of the group’s attempt to resurrect the subaltern voices by pointing out that the project is problematic. She argues the group that tries to rewrite history for the subaltern, in fact, robs them of their agency at the same time. As a result, the subaltern, according to Spivak, cannot speak because their voice is silenced and/or (mis)represented.

Margarete Schütte-Lihotzky, as well as many women in the twentieth century, became the subaltern whose works were (mis)represented by men. Modernist design that is linked to the male-like machine partly originated from the fact that the canonisation of the artists and professionals gave more spotlight to male legendary practitioners than to female practitioners and users. Concrete and geometric aesthetic is not intrinsically antagonistic to women, but the fixed association of modernist aesthetic and the machine cult to male characteristics is what undermines women's agency. As a result, by tracing Margarete Schütte-Lihotzky's life and political stance, one can identify the female voices that attempted to challenge the voices of male architects for the betterment of female society. In "The New Woman's Home, excerpt from Building Culture: Ernst May and the New Frankfurt Initiatives, 1926-1931" (2013), Henderson (2009) pointed out that the New Frankfurt's socialist ideology coincided with the birth of "the New Woman" in the late nineteenth century Europe. With more social and economic independence, more women decided to practice celibacy without any financial support from the husband. The birth of these strong, independent women threatened the male circles in Europe as they feared the single, unmarried woman would lead to the extinction of mankind. Traditionally speaking, occupations for women were limited in the twentieth century and there were only a few occupations that women could have and sustain their lives by themselves. As a result, there were many female workers who had lower-income. Ernst May and Margarete Schütte-Lihotzky's housing projects focused not only on the affordable housing for the poor, but also on the poor female workers to have a safer and more secure life. Although Lihotzky was working under the supervision of Ernst May, his progressive, left-winged stance allowed her freedom to design the kitchen to whatever she deemed fit as May believed that Lihotzky understood "household questions better than a man" (Henderson, 2009).

As a devout communist, Lihotzky borrowed the machine aesthetic, the value propounded by Le Corbusier, to facilitate the lives of female workers in Weimar: "One reason for the unique power of Lihotzky's design was its invocation of the machine, a Type in the language of the NDI. She conceived it as an appliance in itself, a pre-fabricated product" (Henderson, 2009). At the Essen Congress in 1927, Lihotzky argued that she wished to design a house for "a professional woman", especially for a single professional woman (p. 363). What is deemed interesting about Lihotzky's remark was how she considered a housewife "a profession" and wished to design a kitchen as an office for women. The difference between the ideas of women in the kitchen according to Le Corbusier, Hauser, Nixon, or Kruschev and Lihotzky is that the concept of a housewife according to Lihotzky has nothing to do with married life at all. This idea opposed the concept of the state of Weimar itself that considered singlehood in women "a temporary phenomenon" (p. 360) and therefore focused on managing space to make women "marriageable". In contrast, Lihotzky's kitchen did not aim to train women to be perfect wives, but rather to accommodate women to be self-reliant by "providing independent dwellings with their own kitchens, private toilets, and terraces" (p. 365). The modernisation of household does not mean the confinement of women but rather the emancipation of women from being dependent on their husbands. Lihotzky argued that the technologically-driven design of the kitchen would ease the burden of women so that they could engage in other activities that are more meaningful to them. Therefore, being a wife was no longer a vital mission, but rather a fulfillment which was, at times, optional. Moreover, the integration of technology such as electricity into the kitchen has blurred the line between the realm of science, which was previously considered the realm of men, and the realm of domesticity, which was commonly associated with femininity. Lihotzky's technopolitical space has transformed the kitchen not only into an office, but also a laboratory in which female members can work as a scientist of the house, which coincided with the rise of domestic science at the beginning of the twentieth century.

Unfortunately, with the backlash from the Nazis and her last years in Istanbul, the legacy of Lihotzky's work was reduced to the marvel of the modern kitchen that radically changed the traditional kitchen of the traditional family before the second World War. Her left-wing stance does not ignore the plight of women in all social classes. Instead, Lihotzky believed that Communist ideology would bring solidarity and equality that extended to those of genders. By revisiting the politics behind the design and the designer, one can see the trace of women subjects despite the shadow of male practitioners as well as the multifaceted histories and narratives behind the Modernist movement itself.

Conclusion

The examination of Le Corbusier's and Lihotzky's work not only juxtaposes the phallocentric design and that by (and for) women, it also unfolds the layers of Modernism that are oftentimes understood as a unified movement. Le Corbusier's "architexture" has become a site for scrutiny and examination of gender bias in the twentieth century as his architectural designs as well as other creative works pointed out that the technologically-driven space could only be actualized by the rigid compartmentalization of sexes into each functional category. The role of the architect, is, therefore, similar to that of the hero whose power lies in the radical capacity to transform concrete space as well as human mentality residing in that particular space. This ambition, on one hand, undoubtedly contributed to the progress of twentieth century architecture. On the other hand, the universalism of Le Corbusier's aesthetics both undermines women as political agents capable of actively participating in politics and marginalizes them from taking part in a dominant circle of artists and designers. The examination of the life of a female designer in the same period as well as her socio-political context reveals "the trace" of voices that appropriate machine discourse for the betterment of female wellbeing.

Author Contributions

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