

## Eileen Gray's Architecture of Relationship: Materiality and Spatial Layering

This paper aims to offer a reading of Eileen Gray's work on the basis of a parallel that can be drawn between her critical interpretation of modern architecture and Japanese culture, about which she learnt through the intermediation of her fascination for and technical expertise in lacquer work, a technique that embodies a different way of understanding time, space and materiality. The western concepts related to the use of lineal perspective as both a method of representation and a spatial approach are replaced, in Japanese culture, by spatial layering. More specifically, there are three important key notions that may be used to trace a genealogy of Gray's concept of space, based on a sincere relationship with materials, on the subtle control of boundaries and on a spatial syntactic structure in which onion-like enveloping skins wrap and create a sensory responsive and multi-layered environment. They are *Ma* which means pause; *Rikyu nezumi* which refers to the ambivalence of shadows, and *Oku* or the profoundness of a multi-layered sense of space. Screens are space dividers; furniture dissolves the compactness of a room into an adaptable space-time continuum; sliding and folding elements are mobile partitions that, like a Japanese *fusuma*, suggest rather than delimit spaces.

Keywords: Modernity, Japan, materiality, layering, boundary, relationships

### Introduction: Resonances of Japan

In the early nineteenth century, Japanese works of both and applied art were already available in many European countries (Germany, France, and England). Cultural contacts were particularly intensified between 1848 and 1854, when a series of new treaty obligations encouraged trading initiatives between Japan and Europe. After the International Exhibition held in London in 1862 – ‘one of the most important and influential showcases in the history of oriental art in the West’<sup>1</sup> – the *Exposition Universelle* in Paris in 1867 provided new opportunities to introduce Japanese art to the general public. In 1900 ‘Eileen and her mother went to Paris to see the great Universal Exhibition’<sup>2</sup> which was a turning point for Japanese art (above all for the ceramic industry). The Japanese government considered it ‘the most important exhibition since Vienna and invested a great deal of money in Japanese participation’.<sup>3</sup> In the course of the same exhibition, ‘Japanese crafts were criticized for their lack of progress’,<sup>4</sup> but, nevertheless, during the early nineteenth century, Japanese lacquer, textiles, ceramics, metal ware, ivory carvings were a source of fascination for the imagination of European artists and designers who were attempting to conciliate the negative effects that industrialisation had produced in the quality of design with the exciting possibilities offered by mass production.

Eileen Gray had many opportunities to become familiar with Japanese art by spending a lot of time in the Victoria and Albert Museum as a student of the Slade School of Fine Arts in London, which she entered in 1898 to study painting.

Visits to the museums were a must, not only for art students, but for anybody in good society [...]. Eileen [...] explored the museums on her own. One of her favourites was the South Kensington Museum, not far from her home, which by official order of the queen, became known as the

- 1 “Japonism (c.1854–1900),” in *Encyclopedia of Art History*, <http://www.visual-arts-cork.com/history-of-art/japonism.htm#japonism> (accessed July 3, 2017).
- 2 Peter Adam, *Eileen Gray: Architect/Designer: A Biography* (New York: Harry N. Abrams, Incorporated, 1987), 25.
- 3 Clare Pollard, *Master Potter of Meiji Japan: Makuzu Kōzan (1842–1916) and His Workshop* (New York: Oxford University Press, 2002), 80.
- 4 Ibid.

Victoria and Albert Museum in 1899. It was there that she first became interested in furniture and saw lacquer screens.<sup>5</sup>

But, after visiting the *Exposition Universelle* in Paris, fascinated by Art Nouveau (and, as suggested above, by Japanese art), she moved to Paris, where she met, in 1906, Seizo Sugawara, a Japanese artisan who taught her lacquer work. Once she had mastered lacquer, she decided to undertake original experiments in the use of new expressive codes by incising lines or embedding textures and other materials in the surfaces. Her skills in the lacquer technique, based on the overlapping of layers, were destined, according to the hypothesis suggested in this paper, to be fully transposed into the rhythms and spatial qualities of her architectural works.

In Japanese culture, the western concepts related to the use of lineal perspective as both a method of representation and a spatial approach are replaced by spatial layering. Hiroshige Ando's layering technique, which deeply influenced Europe's Impressionist movement, was based on Japanese pseudo-perspective<sup>6</sup> and replaced western perspective with a spatial concept based on sequences of planes having different qualities and values of visual permeability.

Japanese styles and influences met and intertwined with the destinies of some of the protagonists of Modern Movement (such as Bruno Taut, Charlotte Perriand,<sup>7</sup> Frank Lloyd Wright), generating an exchange of ideas which found expression in their works. It is therefore possible to detect modern affinities between traditional Japanese culture and Western modernity, pointing out the possibility of mutual resonances and influences. For instance, it can be stated that the *Ho-o-den* built in Chicago on the occasion of the International Exposition, opened on May 1<sup>st</sup> 1893, marked 'the beginning of Wright's direct architectural links with Japan',<sup>8</sup> although the Japanese pavilion – and its historic model in Japan, that is the original temple *Hō-ō-dō* or Phoenix Hall (1053) – was already familiar to local architects thanks to some articles published on national and international journals. Echoes of the influences exercised by Japanese architecture on Wright's work can be detected in the lateral and staggered approach to the entry of some of his Prairie House – the Ward W. Willits House (1902–03) for instance – or in the plan configuration of John Pew house (1940), in which a

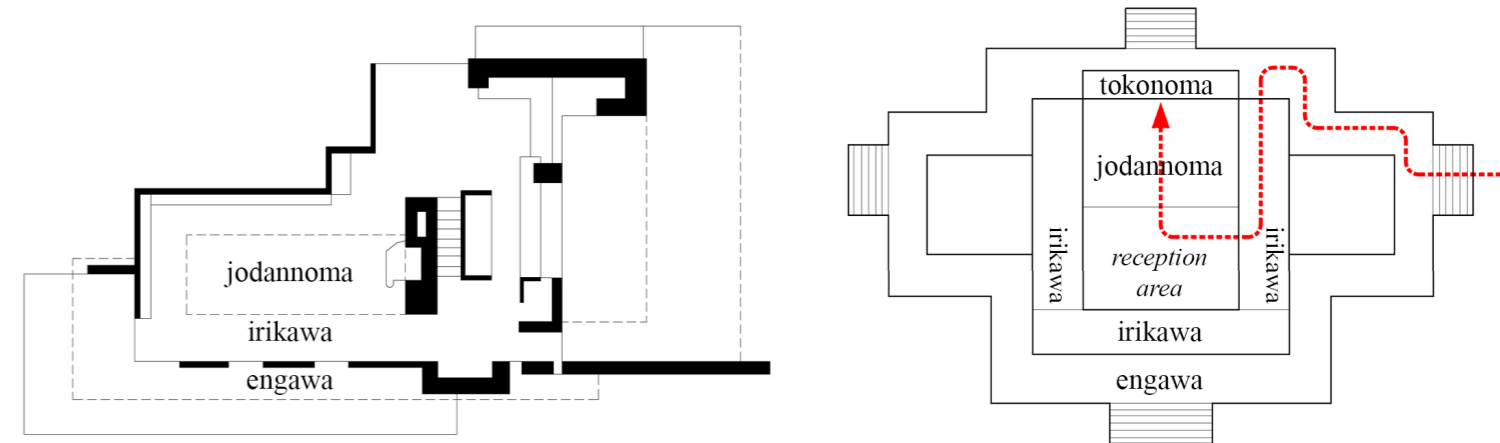


Fig. 1. Graphic processing, produced by the author, of the plan of the John C. Pew house by F. L. Wright (Madison, Wisconsin, 1940) and of the plan of the central hall of the Ho-o-den, showing (in a red dotted line) the staggered route to the *tokonoma* and its distinct spatial zones/layers.

The term *engawa* identifies 'The area beside or surrounding the straw matted floor of a room or veranda in Japanese dwellings' (see the *Glossary of Japanese terms* in Sfakiotaki, "Analysis of movement").

The term *irikawa* refers to spaces of circulation, which are the corridor-like spaces 'surrounding the main living space of the central hall' (see: Nute, *Frank Lloyd Wright*, 60).

The term *jodannoma* indicates the sitting area in front of the *tokonoma*.

The *tokonoma* is a built-in recessed space where art objects and flowers are usually displayed for artistic appreciation (Source: JAANUS Japanese Architecture and Art Net Users System, <http://www.aisf.or.jp/~jaanus/>).

Source of the original images: Nute, *Frank Lloyd Wright*, 59, 63, 64.

sort of spatial layering, very similar to that of a Japanese *Ho-o-den*, articulates the design of the interior spaces (Fig. 1).

[...] the most well-known architectural features of traditional Japanese house, which were highly praised by the leading figures of the 20th century modern movement, such as recessed alcove (*tokonoma*), built-in desk and shelves, wall-to-wall tatami mats, sliding screens to divide interior space (*fusuma*), wooden-lattice exterior sliding doors covered with translucent rice paper (*Shoji*) are the basic characteristics of Shoin Style of the Muromachi Period. (1333–1573).<sup>9</sup>

Other elements and concepts (which may be added to those listed above) – such as the modularity of

<sup>5</sup> Adam, *Eileen Gray*, 22.

<sup>6</sup> Thanks to new trade agreements, the flow of travelers and goods between Japan and the West increased enormously in the 1850s, thus triggering cross-cultural influences and exchanges between Japanese and Western artists. For this reason, Japanese pseudo-perspective itself was affected by Dutch influence as well (The Floating World of Ukiyo-E. Japan and the West: Artistic Cross-Fertilization, <https://www.loc.gov/exhibits/ukiyo-e/japan.html>, accessed August 30, 2017).

<sup>7</sup> Charlotte Perriand, from 1940 to 1942, during her first stay in Japan, worked at the department of Trade and Promotion of the Imperial Ministry of Commerce and Industry as consultant in industrial design in order to orient the production of furniture to be exported to the West. The same position had been occupied by the German architect Bruno Taut between 1933 and 1935. She documented her experiences in Japan in ten articles published from 1946 to 1957 and in her autobiography. See: Charlotte Perriand, *Une vie de creation* (Paris: Odile Jacob, 1998).

<sup>8</sup> Kevin Nute, *Frank Lloyd Wright and Japan: The Role of Traditional Japanese Art and Architecture in the Work of Frank Lloyd Wright* (New York: Van Nostrand Reinhold, 1993), 55.

<sup>9</sup> Murat Dündar, "Comparative Study on Conceptual Similarity and Differences between Traditional Houses of Japan and Turkey," *Intercultural Understanding*, 1 (2011), 18.

Japanese dwellings based on the *tatami* mat, the delicate asymmetry of their plan configurations,<sup>10</sup> flexibility, functionality, standardisation, lightness, transparency, etc.– can be traced back to traditional Japanese architecture.

Below, by way of a summary, is a brief overview of the above-mentioned features. The main purpose in listing them is to provide a general framework for exploring possible underlying elements of conceptual similarity between Gray's approach to space and architecture, on the one hand, and Japanese culture and way of life, on the other.

### (1) House as a Stage

According to Bruno Taut, who spent three and half years in Japan,<sup>11</sup> Japanese (domestic) architecture –which proceeds, through a progressive refinement process, from *Ise Shrine* (Shinto belief) and Tea culture (Zen belief)– reached a modern quality in the Katsura Detached Palace.<sup>12</sup> The fact that the traditional architecture of Japanese houses is a sort of evolution of religious buildings of Shinto implies that 'the house itself is a sacred place in a way where various kind of religious and custom rituals take place in time'.<sup>13</sup> Bruno Taut states that 'The Japanese house [...] is like a stage in an open-air theatre, the background of which, visible through the open wall, is nature'.<sup>14</sup> The metaphorical concept of Vacuum, as conceived by Taoism, seems to point in this same direction: 'only in vacuum lay the truly essential. The reality of a room, for instance, was to be found in the vacant space enclosed by the roof and walls, not in the roof and walls themselves. [...] Vacuum is all potent because all containing. In vacuum alone motion becomes possible'.<sup>15</sup>

### (2) Interior/Exterior Relations

The timber-framed structure of most traditional Japanese houses supports the load of the roof and only two sides of the building have walls (made up of grids of bamboos daubed with mud), the other sides (usually including the south one) being characterised by the presence of sliding partitions, doors or screens (usually made up of wood, straw and rice paper), which can be removed to face the garden. Views from the interior of a house towards its courtyard garden can thus be decomposed in several layers of both spatial and material qualities (Fig. 2).

### (3) Sense of Time

The presence of mobile furniture, sliding or folding partitions and cupboards, or storage units integrated in walls, stands for a special sense of time, with which Japanese culture –deeply influenced by Buddhism that limits the basic needs of everyday life– is permeated: the above-mentioned elements allow for different use of domestic spaces at different times of the day. This is also strongly linked to Taoism which, according to Chinese historians, can be considered as the "art of being in the world," for it deals with the present – ourselves. [...] The Present is [...] the legitimate sphere of the Relative. Relativity seeks Adjustment [...]. The art of life lies in a constant readjustment to our surroundings'.<sup>16</sup>

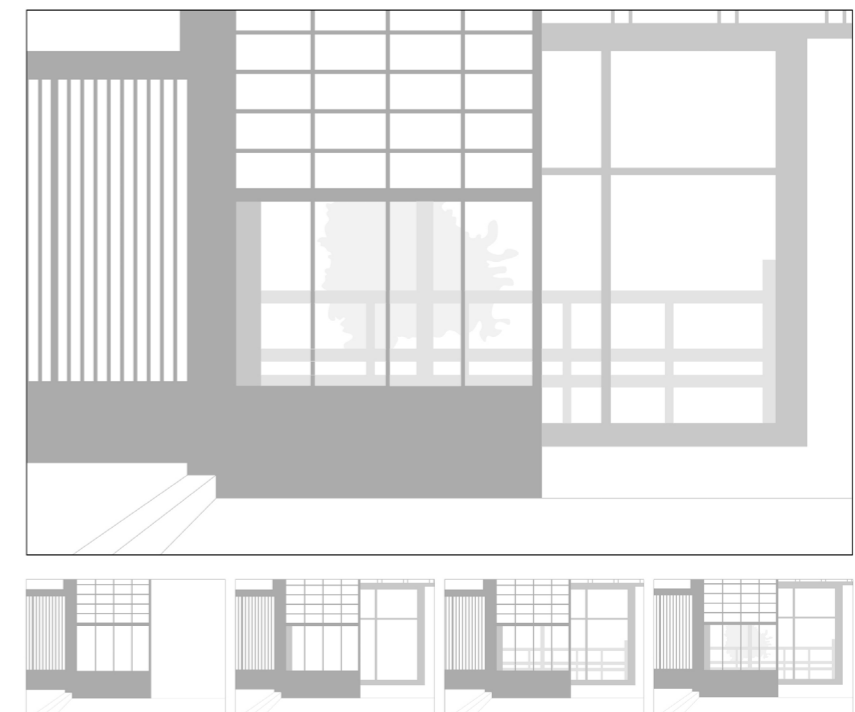
### (4) Spatial Layering and Threshold Conditions (Figs. 2 and 3)

In Japanese traditional architecture, elements such as spatial layering, the 'multipurpose usage of a room'<sup>17</sup> and the absence of defined and fixed boundaries (both between different rooms in the house and between interior and exterior) may be related, on the one hand, to the religious beliefs (Zen and Shinto) –which permeate the spiritual aspect of people's daily lives and advocate for simplicity– and, on the other hand, to some aspects of Japanese culture according to which familial atmosphere, rather than individuality, is much more important in the general asset of society, characterised, at various levels, by a parent-child relationship. Actually, in the Japanese language, there is no word for privacy: it is an importation from western culture.

Fig. 2. View towards the courtyard garden from the interior of a traditional Japanese urban residential building.

Graphic, processing produced by the author, showing the decomposition of space in several spatial layers.

Source of the original photograph: Mira Locher, Kengo Kuma, and Ben Simmons, *Traditional Japanese Architecture: An Exploration of Elements and Forms* (Tokyo: Tuttle, 2010).



<sup>16</sup> Okakura, *The Book of Tea*, 58.

<sup>17</sup> Dünder, "Comparative Study," 20.

<sup>10</sup> Fifteenth-seventeenth century Japanese architecture features examples of asymmetric (though controlled by modular layouts) plan configurations, as exemplified by the asymmetrical placement of the pavilions of the imperial villa of Katsura (1579–1673). See: John F. Pile, *A History of Interior Design* (London: Laurence King Publishing, 2005), 96.

<sup>11</sup> See: Bruno Taut and Hideo Shinoda, *Houses and People of Japan* (Tokyo: Sanseido Co., 1958).

<sup>12</sup> See: Dünder, "Comparative Study," 17–23.

<sup>13</sup> Dünder, "Comparative Study," 20.

<sup>14</sup> Taut and Shinoda, *Houses and People*, 191.

<sup>15</sup> Kakuzo Okakura, *The Book of Tea* (London and New York: G. P. Putnam's Sons, 1906), 59–60.

### (5) Materiality (Fig. 3)

Most traditional Japanese houses are timber-framed - the tactile and material qualities of their pillars are conceived with both spatial and decorative purposes and in spite of the simple aspect of a Japanese room, many features (such as ornamental openings, wood finishes, either in their natural state or richly lacquered) were displayed for decorative purpose. But since 'the beauty of a Japanese room depends on a variation of shadows, heavy shadows against light shadows – it has nothing else',<sup>18</sup> layering and materiality together with a 'sensitive use of shadow and light'<sup>19</sup> – are constitutive/formative spatial methods and creative design strategies rather than mere decorative mechanisms.

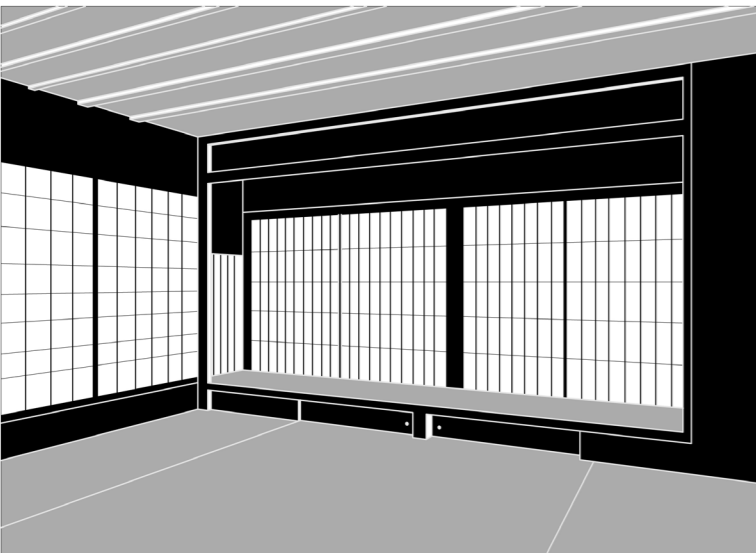


Fig. 3. Interior view of a traditional Japanese residential building.

Graphic processing, produced by the author, showing the decomposition of space in several spatial layers and the creative and decorative use of the natural qualities of material.

Horizontal spatial layers are shown in light gray (floors covered with tatami mats and wood board-and-batten ceilings). Vertical spatial layers are shown in black (sliding paper and wood screens, the shutters of a storage space under the staircase).

Source of the original photograph: Bruno Taut and José Manuel García Roig, *La casa y la vida japonesas* (Madrid: Fundación Caja de Arquitectos, 2007), 184.

### Eileen Gray's Materiality and Spatial Layering

When Eileen Gray started her career with lacquer furnishings in the 1910s, she was an artisan, working materials, rather than an architect. There is no novelty in this phenomenon, since Loos, Mies and Le Corbusier, in their youth, had apprenticed as artisans as well.

Similarly, there is no novelty in conceiving interiors and domestic atmosphere as an extension and completion of the spirit of their inhabitants. It was a contemporary approach in Art Nouveau design in Paris at that time, thanks to Dr Jean-Martin Charcot (a precursor to Freud), who, in the 1880s, demonstrated, through the therapeutic hypnosis experiences of his patients, that the

<sup>18</sup> Jun'ichirō Tanizaki, *In Praise of Shadows* (New Haven, Conn: Leete's Island Books, 1977), 18.

<sup>19</sup> Tanizaki, *In Praise of Shadows*, 20.

external qualities of an environment can influence thoughts, feelings, actions, human behaviours, and emotional reactions. This fact implied the dissolution (based on scientific authority) of the boundaries between the inside and the outside. With such authoritative scientific support, decorative artists in France at the end of the nineteenth century began to take seriously their therapeutic responsibility of redesigning domestic space.

Within this cultural framework, the personality of Eileen Gray was a more complex and ambiguous mixture. It is almost impossible to establish to what extent Japanese culture influenced Gray's approach to architecture and design, because the elements of her architecture can be drawn from different sources and influences.

Her lacquer work and interior design schemes from the 1910s and early 1920s, for example [...] the Monte Carlo room that she showed at the XIV Salon des Artistes Décorateurs in 1923 [...], contain elements of De Stijl-like, cubist-inspired abstraction [...] which seem to be overwhelmed by the richly textured sensuality of materials.<sup>20</sup>

Gray's way of conceiving space might also be seen as an attempt to re-formulate the relationship between human body and its environment, which, on the one hand, has parallels in Oskar Schlemmer's engagement with the social and artistic possibilities of this relationship, and, on the other, reminds one of 'Judith Butler's bio-political conception according to which: "[Bodies] themselves are modalities of power...productive and performative'.<sup>21</sup> Schlemmer's interest in the artistic and social implications of the materiality of the body is 'a reflection of Bauhaus formalism, which centered around the study of the materiality of a medium before going into theoretical discussion'.<sup>22</sup> Similarly, Gray's approach to materiality can be read as a means to communicate her way of understanding space, according to which, as suggested by Susan Hedges,<sup>23</sup> the sensuous textures of the built environment and elements and the participating presence of users' bodies and of their (domestic) performances, are the main components that, interfering and interacting with each other, activate space.

Gray's approach to modernity is something completely innovative, non-canonical and non-heroic. It is a kind of critical commentary on the Modern Movement itself, on its abstract formula and on the cold calculations<sup>24</sup> which modern architecture seemed to derive from.

Her architecture of relationships, based on the subtle and delicate control of boundaries, marks a

<sup>20</sup> Jasmine Rault, *Eileen Gray and the Design of Sapphic Modernity: Staying In* (Farnham, Surrey: Ashgate, 2011), 17.

<sup>21</sup> Beau Rhee, "Living Matter" (Master Thesis, La haute école d'art et de design - Genève, 2012), 38.

<sup>22</sup> Rhee, "Living Matter," 41.

<sup>23</sup> See: Susan Hedges, "Architectural Notation and the Body Condition: Tracking the Dance of E1027" (paper presented at the conference held at the University of Brighton, Brighton, England, July 2–4, 2009).

<sup>24</sup> See: Eileen Gray, "Maison en bord de mer," in *L'Architecture Vivante* (1929). Gray's essay, "From Eclecticism to Doubt" has been translated and reprinted as an appendix to: Caroline Constant, *Eileen Gray* (London: Phaidon Press, 2000), 238–245.

return to a sincere relationship with materials, to an architecture that should be bodily experienced (both at an individual and at a social level).

As bodies are always mobilized in space and time, architecture is also a natural point of inquiry into an artistic and cultural treatment of space – social and political – and an inquiry into the very details of the process of living itself. [...] a body has no movement or life without space, and space has no reason to be constructed without movement or life of the human body.<sup>25</sup>

Architectural elements are, in general, not only space dividers, but rather a built reflection of a social and gendered order and deeply influenced, in the case of Japanese traditional architecture, by Buddhism and Shintoism.<sup>26</sup> Although the exploration of the possible spatial and temporal implications of Butler's theorisation of performativity (as mentioned above), addressed to architecture, is not the focus of this paper, it cannot be ignored that (architectural) space as well as sex and gender is the result of representations, cultural constructs and productions, whose essential and ontological dimension has been replaced by a performative conception. This latter has entered the contemporary architectural discourse because architecture itself 'is understood as a process rather than as an object'.<sup>27</sup> Precisely for this reason, Bonnevier's analysis of Gray's architecture in *E. 1027* follows an approach especially focused on gender and sexuality, according to which the house 'is interpreted as a built suggestion and a critique of heteronormative, male-dominated architectures'.<sup>28</sup>

This paper aims at offering a reading of Gray's work within the framework of a gap she herself produced, making room for an innovative range of interpretations.

For this purpose, the parallel, suggested by this paper, between Japanese culture and Gray's

<sup>25</sup> Rhee, "Living Matter," 32–33.

<sup>26</sup> As regards gender issues, contrary to what one would expect, gender segregation in Japanese domestic architecture was not as notable as in other eastern culture (such as in Korea, because of the influence of Neo-Confucian ideology).

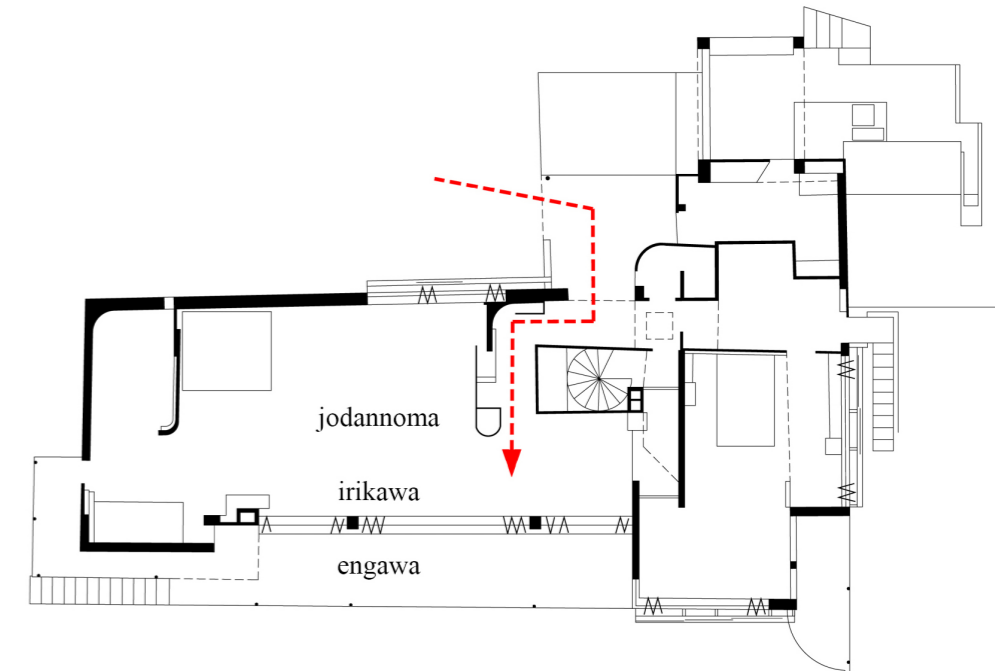
<sup>27</sup> Jan Smitheram and Ian Woodcock, "Knowing Occupations: The Eureka of Very Small Houses" (paper presented at the conference held at the University of Brighton, Brighton, England, July 2–4, 2009), 3.

<sup>28</sup> Katarina Bonnevier, *Behind Straight Curtains: Towards a Queer Feminist Theory of Architecture* (Stockholm: Axl Books, 2007), 30. The fact that Eileen Gray is always deeply concerned with the preservation of her privacy, above all in *Tempe à Pailla*, reveals a design approach focused on the interior rather than on the exterior of the building. This issue, together with the absence of spatial hierarchies and above all of those spatial roles usually associated to a gendered use of domestic space – which can be detected in the fact that she termed 'her workroom a "boudoir-studio," merging the historically gendered spaces of boudoir and study into a single entity' (see: Constant, *Eileen Gray*, 107) – could be read as an attempt to re-interpret the feminisation of domestic space re-signifying it, since the domestic space was the official setting that a patriarchal society and tradition had assigned to women. This was, thus a reaction against and subversion of the sexual and gender associations usually linked to these spaces, in opposition to the masculinised modernist design strategy, based on a strongly hierarchical arrangement of space, according to which an interior should open centrifugally to the exterior. As an exception to the above mentioned elements, and perhaps because she could count on a maid's presence that prevented her to inhabit this space herself, the kitchen of the E1027 is the least suitable room to express her bodily concern with space.

Fig. 4. Graphic processing, produced by the author, of the floor plan of the upper floor of *E. 1027*, drawing parallels with the spatial layering of the central hall of the *Ho-o-den* (see Fig. 1).

Shown in a red dashed line, the entry sequence, which requires three turns, recalls the zigzag movement of the staggered route to the *tokonoma* in the central hall of the *Ho-o-den*.

Source of the original image: Stefan Hecker and Christian F. Müller, *Eileen Gray: Works and Projects* (Barcelona: Gustavo Gili, 1993), 108.



approach to space can be introduced by referring to three important concepts: *Ma*, *Rikyu nezumi* and *Oku*.

The first concept, *Ma*, means pause intended as both a distance in space (a space in-between other spaces), and an interval of time (between phenomena and events, that is a kind of gap or silent space). It is strictly connected to Taoist and Buddhist tradition according to which a man is considered as an integral part of nature (but not as its centre, which is opposite to the anthropocentric perspective of Western culture). In these terms, within the multi-layered spatial structure of Japanese architecture and its conception of architectural space and nature as a continuum, humans are part of the composition, an extra layer.

The concept of *Ma* can acquire an outstanding significance as a key concept to fully understand and appreciate the gradualness of physical movements into and/or through Gray's houses, which usually require, from the entrance, a series of compulsory turns (Fig. 4), each time revealing a screened view. A gradual penetration of interior space, as well, is obtained by delaying, both in space and time, the progressive approach and access to the living room from the outside. This approach resonates with the above-mentioned *ma* concept, which structures Japanese way of thinking and acting: space becomes significant through the mediation of time<sup>29</sup> that is to say through the actions and the rituals that take place in it.

<sup>29</sup> See: Keiko Elena Saito, "Arquitectura y ambiente: Una mirada renovada sobre los conceptos Ku, Oku y Ma," *Kokoro: Revista para la difusión de la cultura japonesa* 5, no. 14 (2014), 8.

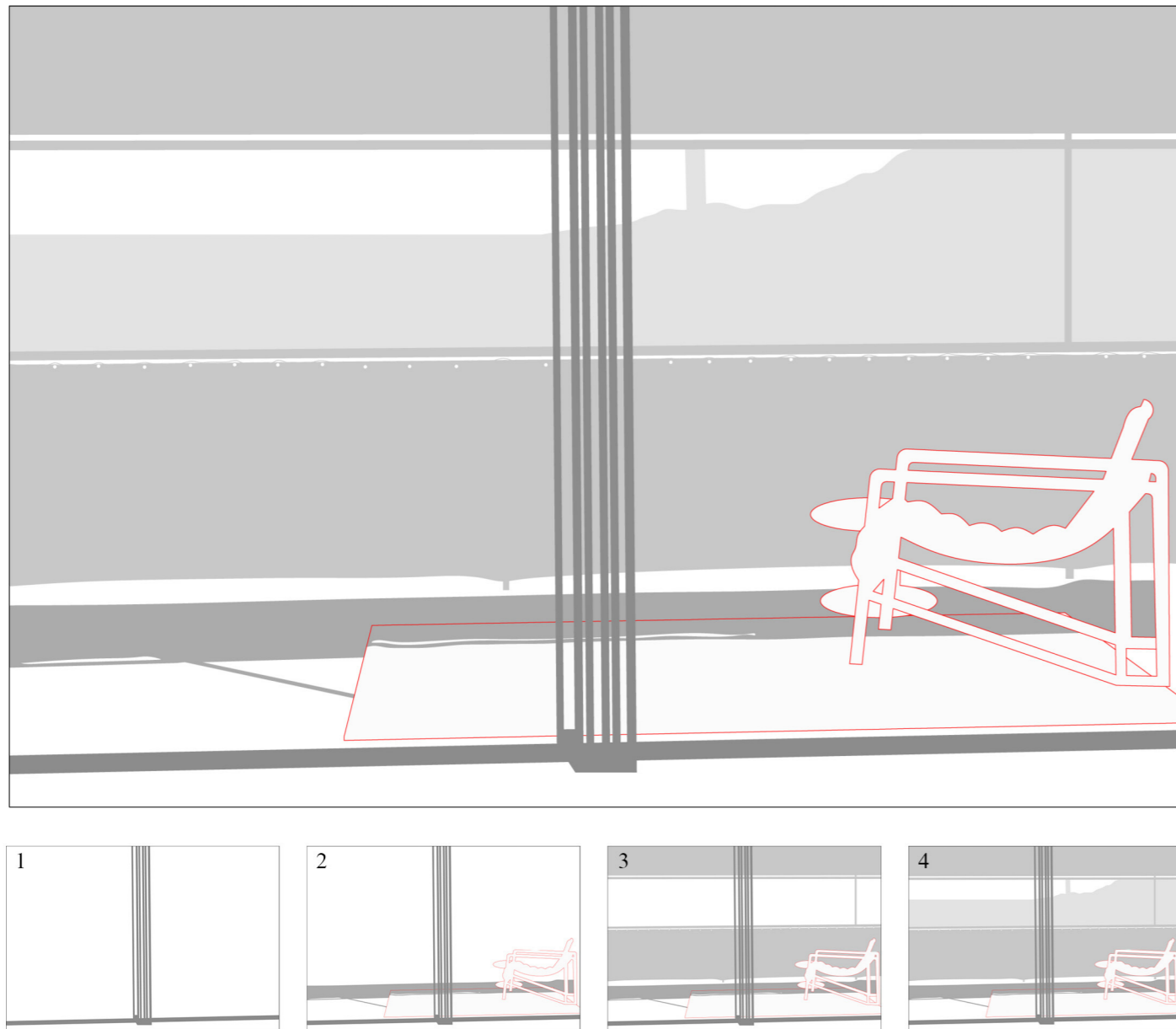


Fig. 5. E.1027, view from the living room towards the terrace (graphic processing produced by the author).

Spatial layering: **1** the frame of the patented paravent-window; **2** the materiality of furniture (her Transat chair and circular table) and the complimentary pattern produced by the shadow cast by the canopy, which break the tension between (inhabited) space and (its flattened) image; **3** the shade canopy; **4** the surroundings.

Source of the original photograph: Peter Adam, *Eileen Gray: Her Life and Work* (London: Thames & Hudson, 2009), 200–201.

The second concept is *Rikyu nezumi* (philosophy of grey) that, according to the definition supplied by Kisho Kurokawa,<sup>30</sup> refers to the darkness and shadows that, dissolving architectural elements, turning their three-dimensional character into a sequence of flat elements. Space is not experienced from a single point of view, but rather from a moving visual point of perspective that dissolves the sculptural, three-dimensional effects of a strong and defining shading (which is synonymous with a space of single, unambiguous meanings) into a two-dimensional world of plane elements, blurring shades and multiple meanings (Fig. 5).

The third concept is *oku* (innermost area), which refers to the high density and profoundness of a multiple layered sense of space. *Oku* is the innermost space in a sequence of spaces, which embodies the Japanese sense of vacuum, intended as the interior and central space of a nested spatial system. The *oku* concept is the opposite of what center means in western culture, since it indicates a sense of hidden and invisible deepness.

These three key notions may be used to trace a genealogy of Gray's concept of space, which inherently includes time and space as qualitative connotations. The spatial syntactic structure of her houses is based on a spatial strategy that occupies an in-between and ambiguous position between two different ways of shaping (architectural) space: by addition of parts, from inside out (centrifugal space), and by subtraction of (unnecessary) parts, from the whole to the part (centripetal space). Gray's distinctive and personal attitude towards space engages in dialogue with the main principles of the De Stijl movement, whose spaces, made up of individual elements could be perceived both as wholes and as assemblages of autonomous parts.<sup>31</sup> At the same time, the ambiguity and ambivalence of Gray's spatial concept finds resonance in the principle of duality that underlies Japanese daily life, deriving from Lao Tzu's teaching about the dynamically balanced presence, within space, of both inside and outside.<sup>32</sup> Her houses are structured as sequences of interdependent spaces, whose functional multiplicity breaks down 'the conventional notion of the room as a singular spatial entity'<sup>33</sup> without challenging intimacy and privacy, thanks to 'her conception of the furniture as a series of extrusions from the wall'<sup>34</sup> that adapt to individual requirements.

30 See: Matteo Belfiore, "On Japanese spatial layering," *Le Carré Bleu: Fuelle internationale d'architecture* no. 2, (2012), [http://www.lecarrebleu.eu/allegati/LCB%202-2012\\_INGLESE\\_.pdf](http://www.lecarrebleu.eu/allegati/LCB%202-2012_INGLESE_.pdf) (accessed July 3, 2017).

31 See: Anne-Catrin Schultz, "The Process of Stratification in the Work of Carlo Scarpa" (Doctoral Dissertation, Faculty of Architecture and Urban Planning, Universität Stuttgart, 1999), 98 and 111, <http://elib.uni-stuttgart.de/opus/volltexte/1999/514/> (accessed July 3, 2017).

32 See: Schultz, *The process of stratification*, 99. Actually, a centrifugal conception of space lies behind the traditional Japanese house, but its extroverted character –according to which nature is considered as the prolongation of interior space and the plan of the house proceeds from interior towards exterior– refers mainly to its relationship with its immediate environment, that is to say with its garden (rather than with its outdoors).

33 Constant, *Eileen Gray*, 105.

34 Ibid.

### E. 1027 (1928): Layering as Merging Spaces

*E. 1027* is a portrait of its author and creator, a total work of art, in which furnishings, built-ins, colours, lights, and materials are totally conceived 'for the well-being of its inhabitants'.<sup>35</sup> Stencilled texts and inscriptions – in the form of invitations or injunctions, such as *entrez lentement* or *invitation au voyage* – seem to underscore 'the limited temporality of modern conditions of dwelling',<sup>36</sup> thus resonating with the sense of time of Japanese culture. As Caroline Constant affirms, Gray's conception of (domestic) space is 'a fertile combination of the sensual and the commonsensical'.<sup>37</sup> Sliding and folding elements are mobile partitions that, like a Japanese *fusuma*, suggest rather than delimit spaces, creating a living environment endowed with a sense of spatial flexibility in which even rugs and carpets define spatial entities. Private and public areas/zones can be identified in the way people circulate in the spaces of the house: the entrance provides a transitional space (Fig. 4), whose extension includes the corridor-like spaces of circulation (*irikawa*) surrounding the living room (*jodannoma*); this latter is conceived as a guest-reception room and visitors are not allowed any further. In spite of this fact, thanks to the multiple spatial devices – the (even mentally) sliding layers of the openings, built-in furniture, pivoted elements, and folding screens – one gets the impression of a spatial continuum. Much in line with the spatial zones of a traditional Japanese building (Fig. 1), the veranda (*engawa*) plays the role of an intermediate space between inside and outside. The merging and blurring of distinctions between furniture and architecture in Gray's house – since 'one element seemingly merges into another',<sup>38</sup> as suggested by Constant – seems to recall the multipurpose rooms with small furniture in traditional Japanese (domestic and religious) architecture. Similarly, in Gray's houses furniture is very often situated along the boundaries of two different rooms, ambiguously delimiting and mediating the flowing of space between each other, acting as interstitial spaces that take into account the changing nature of human life and its incompleteness. Even contrasting textures and different conditions of light and shadow generate different spatial gradations, focused on inside intimacy, materiality and a delicate (and seasonal) contact with the outside (Fig. 5).

This approach to space doesn't create a sculptural architecture but rather an *architecture of relationships* according to Kengo Kuma's definition.<sup>39</sup> The 'surfaces of the walls, the bed, the mirrors in the bathroom, they have a dimensionality and a deep connectivity to the daily movements of life'.<sup>40</sup> This issue recalls Taut's above-mentioned definition of Japanese domestic space as a stage. The term 'enactment' – which constitutes one of the core elements of Katarina Bonnevier's interpretation

35 Constant, *Eileen Gray*, 93.

36 Constant, *Eileen Gray*, 95.

37 Constant, *Eileen Gray*, 93.

38 Constant, *Eileen Gray*, 106.

39 See: Belfiore, "On Japanese spatial layering."

40 Rhee, "Living Matter," 50.

of Gray's architecture in the *E. 1027*<sup>41</sup> – seems to point in this direction as well (in spite of the fact that the starting premises are of a different nature), since it 'includes the act and brings into play the interconnectedness of material container, the setting, the deeds and the actors'.<sup>42</sup>

*E. 1027* is a 'house to be experienced'.<sup>43</sup> Gray's approach to architecture and design can be defined as *usage-action-gesture* oriented:<sup>44</sup> space and architecture 'seemed to take shape around the furniture and the way its occupants would move in physical space'.<sup>45</sup> Like an 'orbital planetary movement',<sup>46</sup> the gestures and movements that allow the usage of space around hinging, floating, pleating, folding/unfolding and multi-layered pieces of furniture, speaks about a fluid conception of space imbued with a sense of temporality, which seems to have resonances with Japanese culture. The living room was characterised by the presence of different spatial and use densities. Gathering corners around the music and dining area, for example, originally implied a non-conventional arrangement and layout of the furniture themselves.<sup>47</sup> The centre of the living space was the divan, a reinterpretation of the traditional Provençal divan that was the usual place for sitting or lying down during the hottest hours of the day, to take a siesta or simply relax. According to Bonnevier, the living-room in *E. 1027* is 'a multifunctional space for pleasure, rest, studies, business meetings and parties'.<sup>48</sup>

### Tempe à Pailla (1932–34): Layering as Folding/Unfolding Spaces

As regards *Tempe à Pailla*, 'Gray's extremely private house'<sup>49</sup> which 'was conceived, well before it was designed, for privacy',<sup>50</sup> it can be considered as a further step in the development of her

41 The other one being *queerness*. See: Bonnevier, *Behind Straight Curtains*.

42 Bonnevier, *Behind Straight Curtains*, 16.

43 Anthony Flint, "Restoring Eileen Gray's E-1027," *Architect: The Journal of the American Institute of Architects*, August 12, 2015, [http://www.architectmagazine.com/design/restoring-eileen-grays-e-1027\\_o](http://www.architectmagazine.com/design/restoring-eileen-grays-e-1027_o) (accessed 20 November 2015).

44 See: Rhee, "Living Matter."

45 Flint, "Restoring Eileen Gray's E-1027."

46 Rhee, "Living Matter," 55.

47 The racy murals Le Corbusier painted in the house deeply altered the spatial settings and layout of the living room. Many experts agree about the fact that Gray's interiors and Le Corbusier's murals are incompatible (although, as Caroline Constant has pointed out, probably the house has survived until the present day thanks to their presence). This should be sufficient to remove and place them into a museum, reconstructing the original spatial layout, but due to the classification of the paintings as a *Monument Historique* under the French Law, it is almost impossible to reach this decision; consequently, some expert has suggested to re-create the original setting with the help of a computer, that is to say by means of visual rendering that can at least contribute to form an opinion.

48 Bonnevier, *Behind Straight Curtains*, 39.

49 Rault, *Eileen Gray*, 20.

50 Rault, *Eileen Gray*, 137.

'critique of dogmatic functionalism'.<sup>51</sup>

'In contrast to E. 1027, where entertaining was a priority, Gray conceived of her house at Castellar as a place of solitude and retreat'.<sup>52</sup>

There is no doubt that privacy is the central design principle of *Tempe à Pailla*; her strategies in purchasing a large quantity of land were more likely to be oriented to secure her privacy by regulating inward views rather than (or, at least, as well as) providing uninterrupted outward views towards the natural surroundings of the house. Gray's spatial planning and 'architectural renderings of private space'<sup>53</sup> aim at engaging the user with space and its elements, incorporating sequences of multiple (both horizontal and vertical) layers into the experience of domestic space (including natural elements – such as the sun and, consequently, the shadows cast by trees, their foliage, and the hill itself– which act as extra layers and filters) (Fig.6).

Visual clarity as advocated by Le Corbusier, is totally absent here: the reductive total view cannot explain and represent the complexity of an almost incommunicable way of conceiving space, made up of visual ambiguities and physical obstructions.

*Tempe à Pailla* is made up of disconnected spaces and circumscribed enclosures, each one endowed with an autonomous identity relying on their haptic sensuality.

In general, Gray's photographs emphasise 'the privacy and isolation of the house [...]. As Caroline Constant explains, Gray "[r]einforc[ed] the site's natural isolation, [and] devised a dense system of architectural layers to insulate herself against any potential intrusions on her privacy"<sup>54</sup> Gray took her own photographs (Fig. 6) of her two southern French houses afterwards, to record her design ideas in the built results, which demonstrate 'her position in the constructed work [aiming at recording] the way in which building elements were layered with space'.<sup>55</sup> Photographs are used to catch fragments of time, moments and temporary effects of light and activity: '

In the reality which her photographs recorded, the furniture and the enclosing wall elements generated layers of subsidiary space within the flow of the rooms'.<sup>56</sup> Her sensory responsive design solutions, together with the '[...] shadows and emanations of light [...] locate [the user] not only in space but in time'.<sup>57</sup>

Being articulated in individual parts, the main feature of this domestic space is the spatial sequence

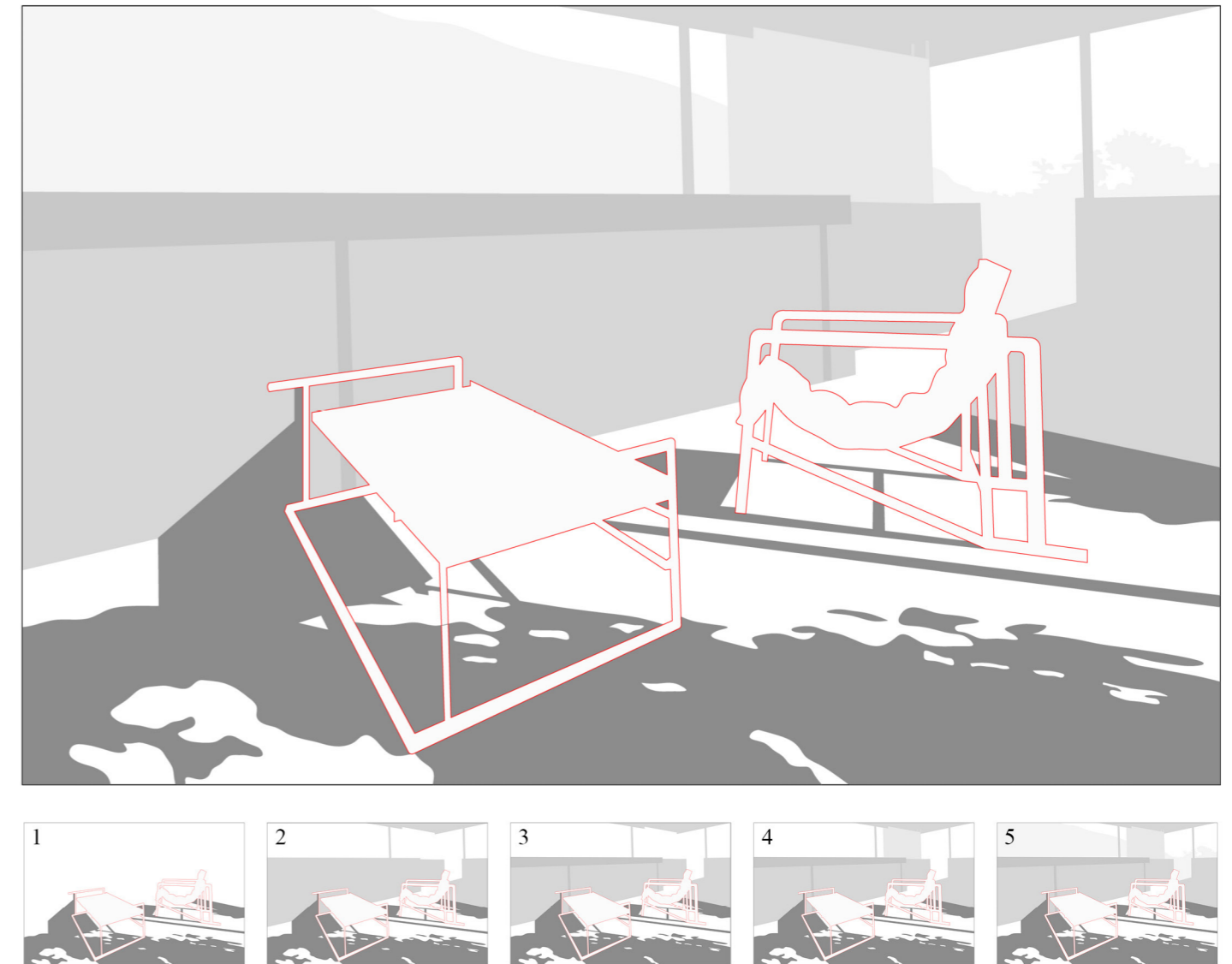


Fig. 6. *Tempe à Pailla*, view towards the mountains from the terrace (graphic processing, produced by the author, of a photograph taken by Eileen Gray in 1934).

Spatial layering: **1** the materiality of furniture (her Transat chair and adjustable table) and the complimentary pattern produced by the shadow cast by the foliage of the trees, which break the tension between (inhabited) space and (its flattened) image; **2** the architectural frame; **3** the complimentary pattern produced by the shadow cast by architectural elements (columns and canopy); **4** the sliding shutters; **5** the surroundings.

Source of the original photograph: Hecker and Müller, *Eileen Gray*, 132.

51 Constant, *Eileen Gray*, 145.

52 Constant, *Eileen Gray*, 146.

53 Rault, *Eileen Gray*, 1.

54 Rault, *Eileen Gray*, 136–137.

55 Andrew Higgott and Timothy Wray, *Camera Constructs: Photography, Architecture and The Modern City* (Burlington: Ashgate Pub. Co., 2012), 277.

56 Higgott and Wray, *Camera Constructs*, 277.

57 Ibid.



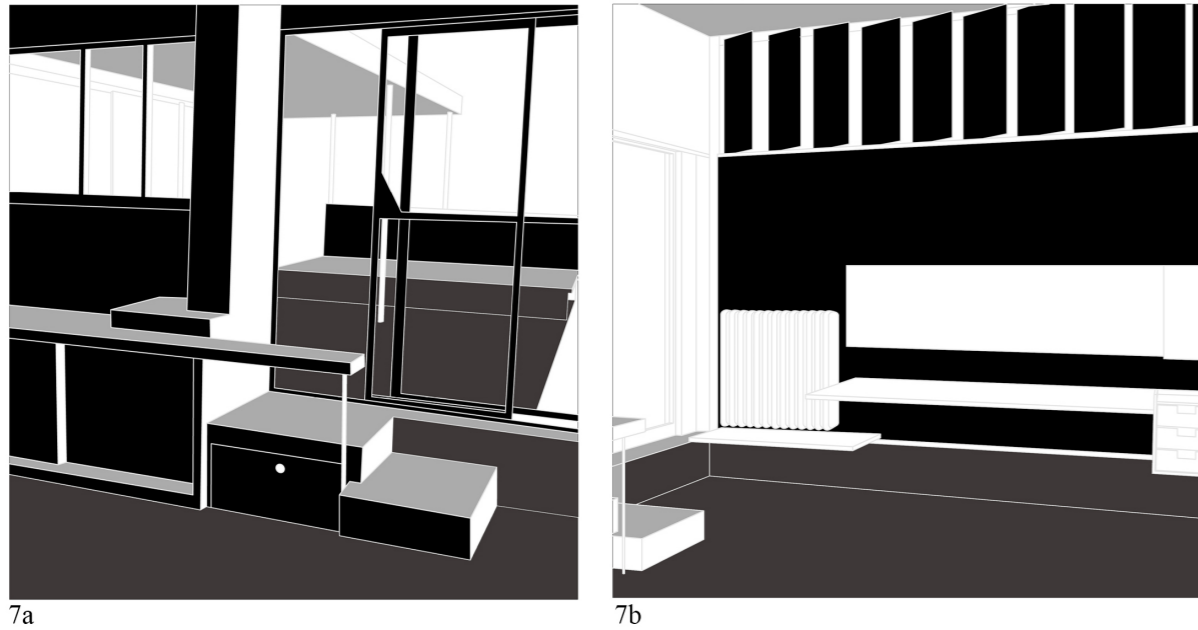


Fig. 7. Tempe à Pailla, vertical (shown in black) and horizontal (shown in light gray) spatial layering (graphic processing produced by the author).

**7a** View from the living room to the terrace, with fireplace, chimney, extended shelf and built-in storage space under the staircase; the white tile floor (shown in a different tonality of gray) of the terrace folds up against the platform of the sunbed.

**7b** View from the study side of living room (about 1950) to terrace; the white tile floor (shown in a different tonality of gray) folds up against the wall, under the built-in desk, creating a circumscribed space, in which a densification of layers generates awareness of a tridimensional, haptic and visual spatial environment..

Source of the original photographs: **7a** Hecker and Müller, *Eileen Gray*, 131; **7b** Hecker and Müller, *Eileen Gray*, 137.

of single volumes, each one conceived as a spatial entity and each one haptically recognisable. Gray challenges the awareness of boundary conditions by varying the floor levels of the rooms and accommodating storage units in the ceilings (thus transforming their functional scopes), and by expanding, folding and unfolding space by means of both vertical and horizontal layering (Fig. 7) that activates circumscribed haptic and visual spatial environments, she rejects the spatial idea of the free plan.

## Conclusions

The significance of Gray's houses *E. 1027* and *Tempe à Pailla* 'lies more in the questions they raise than the solutions they pose'.<sup>58</sup>

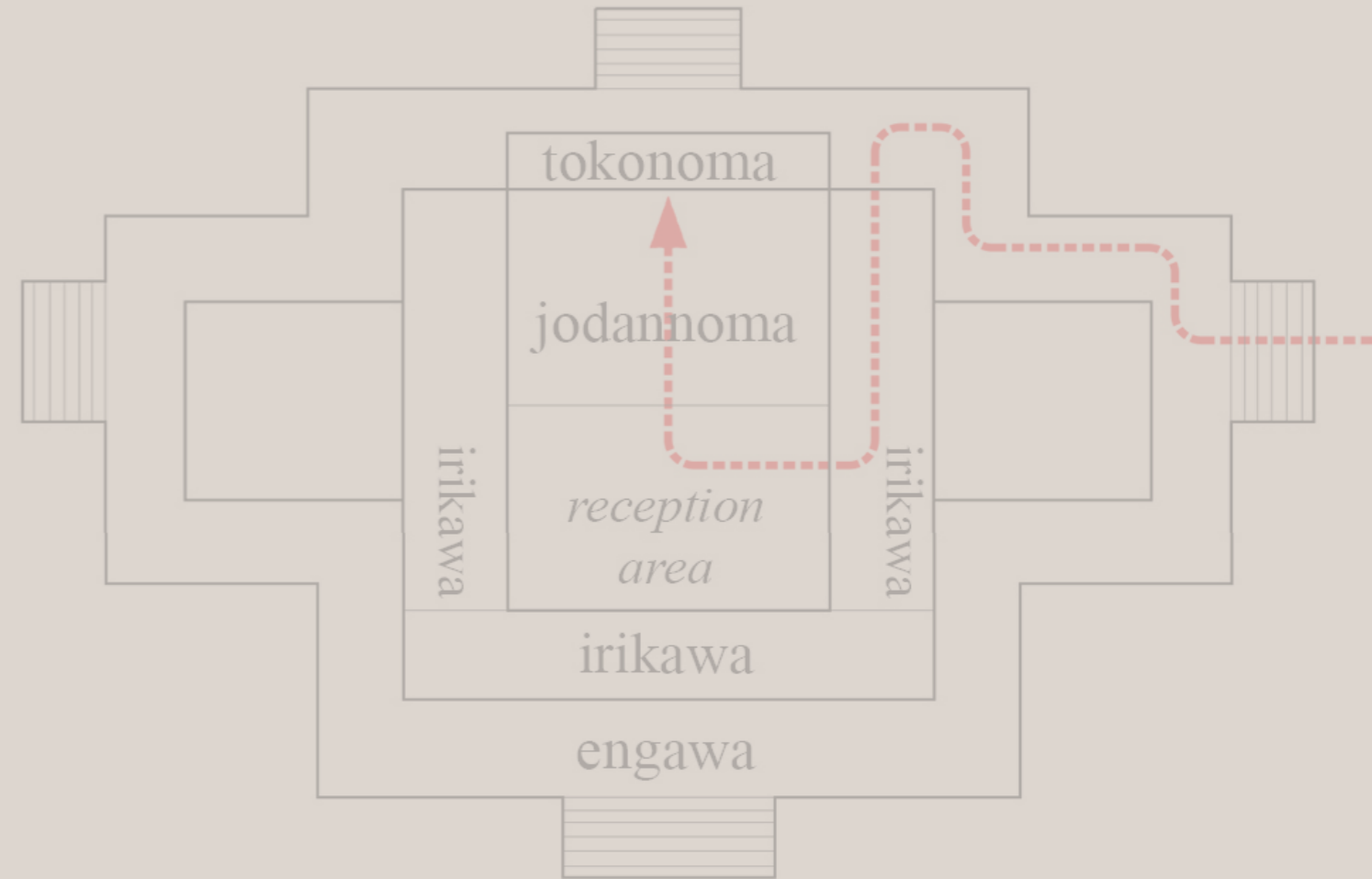
<sup>58</sup> Constant, *Eileen Gray*, 163.

Gray's built-in furnishings, folding steps, pivoting storage compartments, concealing or doubling functions, continuously provoke semantic shifts: '[...] meaning is created in the process of making'.<sup>59</sup> Architecture is not treated as if it were a neutral framework, but rather as a merging and lively spatial environment that people –by living and using the spatial devices (such as furniture and other mechanisms that act as spatial condensers) they are provided with– fill with meanings and activate. It is the opposite to the *promenade architecturale* in which the user is a spectator, the result of the visual abstraction in design and architecture. The fact that Gray's interiors are in general multi-layered, made up of heterogeneous elements, implies that the only possible way to interpret them is from within, entering into them, perceiving them in time and space, which requires a multi-focal and non-hierarchical approach.<sup>60</sup> This multi-layered conception of space obliterates the traditional figure-ground relationships and goes beyond the typical architectural dichotomies (of introverted versus extroverted space, of centrifugal versus centripetal design strategies), creating a more complex and wider range of spatial possibilities (such as visual occlusion, simultaneous presence of revealing and concealing surfaces, transparency and opacity, etc.) in which the human body is an active agent that continuously renegotiates spatial boundaries.

According to Gray, the user is the real and concrete (synesthetic) protagonist of domestic space and of the unfolding of its potentialities. Space, furniture and users are definitely treated as a whole. Consequently, the main scope of the new reading of Eileen Gray's work, which this paper is suggesting, through the lenses of Japanese culture, is to demonstrate that a new way of understanding Modernity is possible, if Modernity is considered imaginatively, that is to say as an active component in the design process.

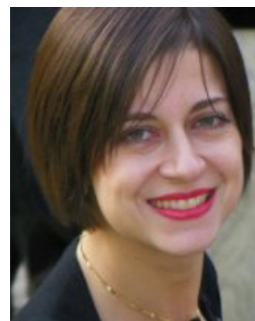
<sup>59</sup> Bonnevier, *Behind Straight Curtains*, 84.

<sup>60</sup> See: Despina Sfakiotaki, "Analysis of Movement in Sequential Space: Perceiving the Traditional Japanese Tea and Stroll Garden" (Academic Dissertation, Faculty of Technology, University of Oulu, 8 April 2005), 48.



**Serafina Amoroso**

University of Florence, DIDA - School of Architecture



Serafina Amoroso is an architect who currently works as a lecturer under contract in a second-year Architectural Design Studio at the School of Architecture of Florence and as a teacher of Art History and Drawing at a secondary school. She holds a PhD degree in Architectural and Urban Design and got a Master degree in Advanced Architectural Design from the ETSAM in Madrid, where her personal and academic interests began to focus on gender perspectives and their relationship with space and education. In 2014 she was selected to participate in the Visiting Teacher's Programme of the Architectural Association in London.

E-mail: [serafina.amoroso@hotmail.it](mailto:serafina.amoroso@hotmail.it); [serafina.amoroso@unifi.it](mailto:serafina.amoroso@unifi.it)