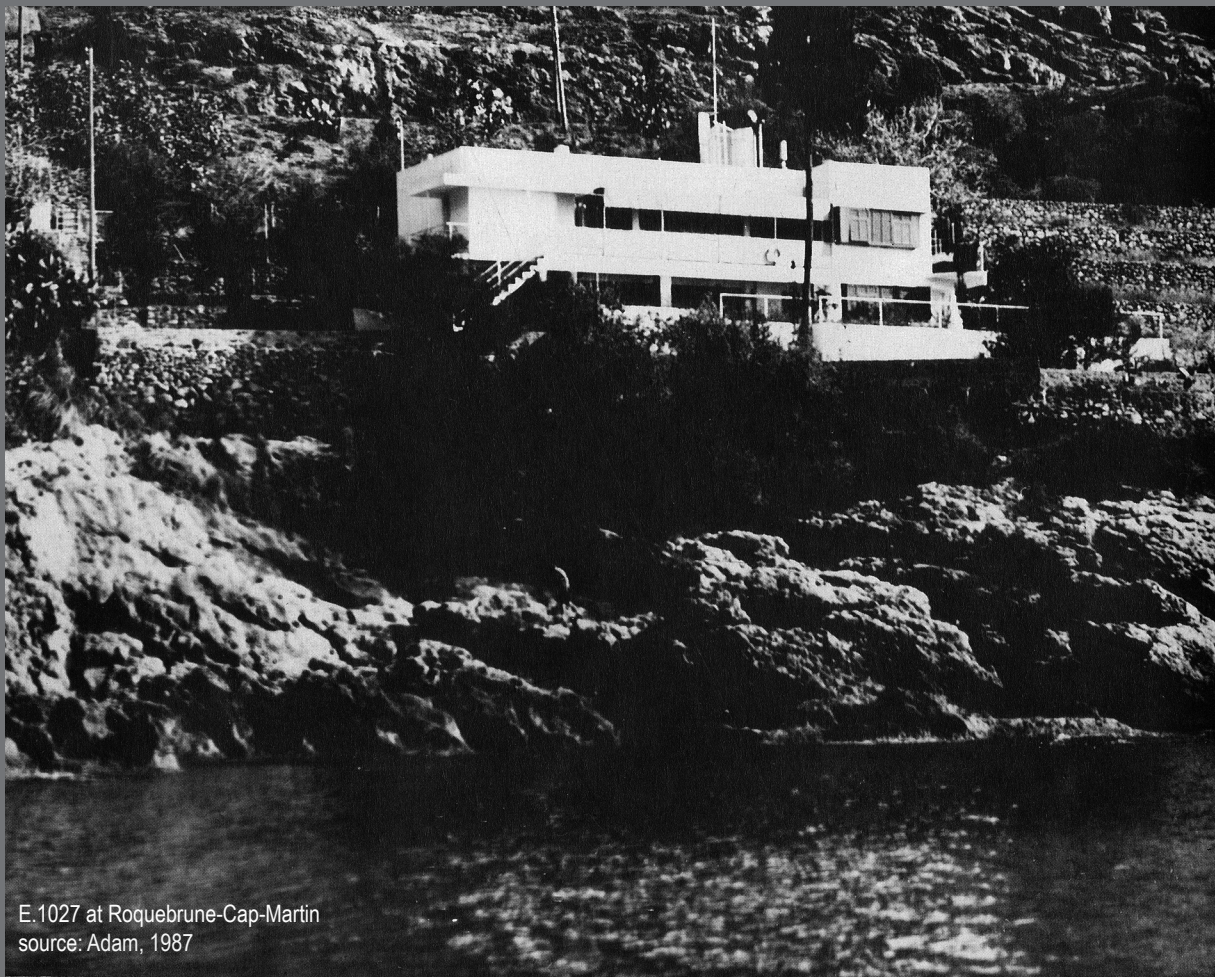


# E.1027

## Eileen Gray

Roquebrune-Cap-Martin, France  
co-designed by Jean Badovici  
1927-1929



E.1027 at Roquebrune-Cap-Martin  
source: Adam, 1987

While well established as a designer of furniture and trained as an artist, E.1027 was Eileen Gray's first attempt at architecture and was completed in 1929 at Roquebrune, France. It is a remarkably unique building designed in an era dominated by the modernist movement and its male practitioners. The intense scrutiny undertaken by Eileen Gray of the landscape and the immense consideration of the building's layout at both the macro and micro scale have rendered it one of the most remarkable houses of the 20th century. Gray was designing at a time when the ideas surrounding architecture were undertaking a paradigm shift. As a result deciphering the various influences and personal insights of Gray at E.1027 is complex. This paper is sectioned into four themes in relation to E.1027 at Roquebrune, themes of space, form, body and technique.

space  
form  
body  
technique



## space: influences and modernism

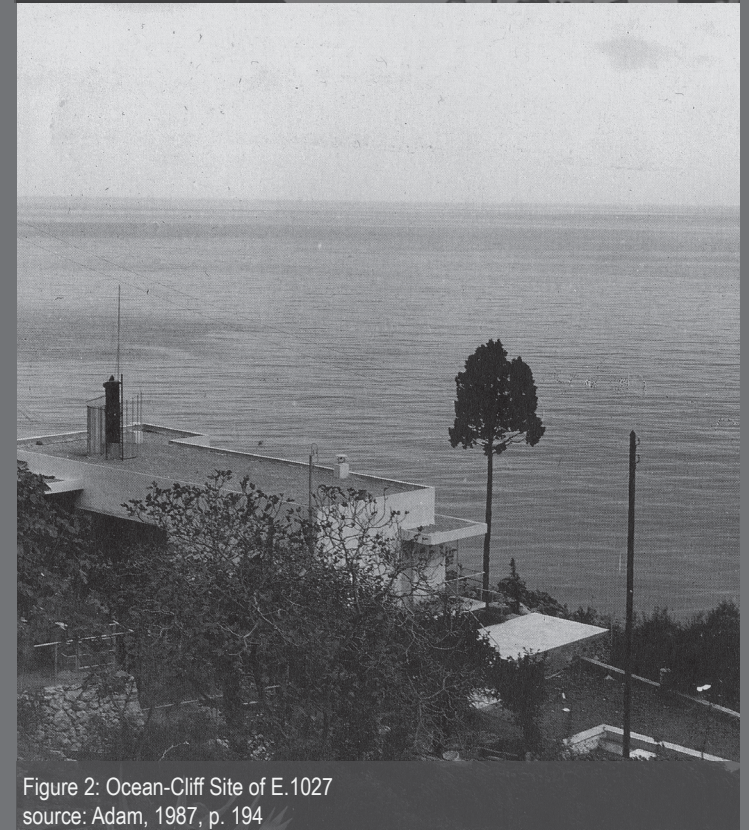
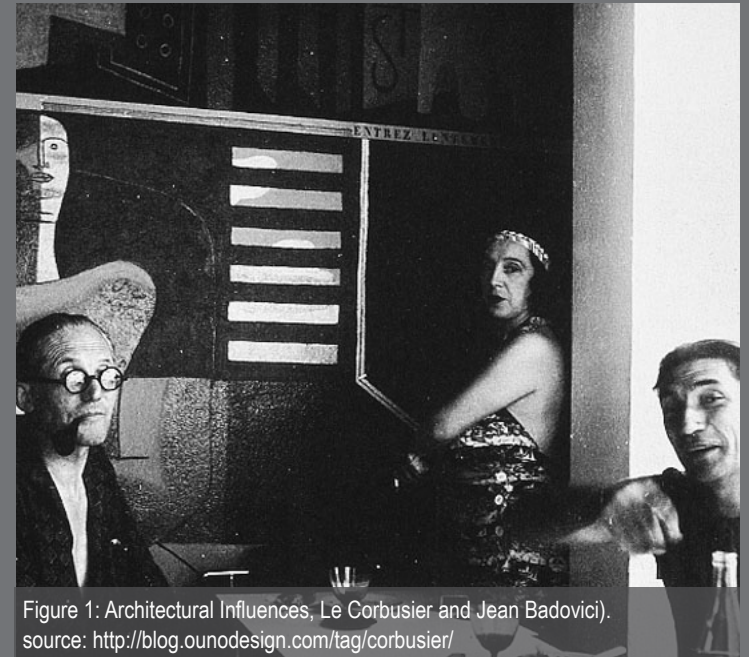
As a designer, Eileen Gray produced work unlike anything the world had ever seen before. While her furniture was critically acclaimed, some of her early design work suffered harsh criticism from her French observers. Admired by the Dutch de Stijl movement, surrounded by art deco in France and befriended by leaders of the modernist movement, Gray's work was most definitely affected by what she saw being done by those around her. Jean Badovici was likely the greatest motivator behind the actual building of E.1027. A trained architect, Badovici encouraged Eileen Gray to try full-scale architecture (See Figure 1: Architectural Influences, Le Corbusier and Jean Badovici). Despite his mentorship, Badovici can take no real credit for the ideas behind E.1027 as the spaces within were influenced notably by the modernist movement, as well as Gray's own personal notions of space.

## infinite space

Gray lived on the site of E.1027 throughout its construction, focusing all her efforts on creating something economic but no less measured than any of her previous work in design. The geography and topography of the land was highly considered by Gray. Gray chose not to alter the topography rather she wanted the form to "embrace the natural contours" of the site (Adam, 1987, p.192) (See Figure 2: Ocean-Cliff Site of E.1027). Gray studied the natural patterns of the site including the wind and light and designed a house that was very responsive to these conditions (Adam, 1987, p.192) (See Figure 3: Sun Study Undertaken by Gray for E.1027). The detailed study of the geography exemplifies the value of the exterior in the overall design.

At the time of E.1027's development, the concept of space was being redefined. Banham (1975) discusses in "Space and Power," the shift towards understanding space as infinite, extending in all directions with a horizontal focus. Space is understood as flowing, connected and related between structure and exterior; "space in this sense, flows almost tidally, away from the observer – when he is outside the house, space flows in, when he is within, space flows out into the garden" (Banham, 1975, p.56). Theo van Doesburg (1970) discusses how the designers of modern architecture sought to redefine the interior and exterior. Walls no longer function as the structural separators of two spaces. Adam (1987) describes the spacious atmosphere of the relatively small E.1027 saying, "inside and outside are one whole, and give the feeling of spaciousness" (p.193).

Several mechanisms were employed by Gray to accentuate the continuation of space from the interior to the exterior. Perhaps most notable is the dialogue she produces with the water. The windows of the central room are designed to be folded away, completely removing the barrier to the horizontal vista of the sea (See Figure 4: Diagram of Extension into the Landscape). Buisson and McLendon (n.d.) describe E.1027's relationship with the sea saying the "seascape is articulated as horizontal ribbon; the horizon line architectonically reproduced. The sea is not only a framed view but a figure which starts progressively to slide inside the house" (See Figure 5: Exploration of E.1027 as a continuation of water landscape). Buisson and McLendon (n.d.) explain the flow of the earth into the interior of the house through use of "earthy-brown curtains and vegetation-green panels," contrasted with pure white walls.





The use of color is an abstract representation of the land flowing into the space of the interior, while the interior is extended into the landscape by details such as carpet-clad balconies, tiled squares of landscape and an exterior sunroom (Buisson and McIendon, 2009). Approaching E.1027, one is signaled by path delineating mechanisms such as the red door at the entrance and the curved wall leading to the house. This transition “between outside and inside is effortless” (Adam, 1987, p.198). Rather than clear delineation of where the exterior stops and the interior begins, Gray chooses to blend the spaces, having the occupant transition almost effortlessly and unawares between the two states.

## form and space

A reflection of the values of the time, E.1027 has been described as a “maison minimal” (Adam, 1987, p.195). Corresponding to Theo van Doesburg’s assertion that “the new architecture is economic,” Gray responded in the design by both minimizing scale and using the space to a maximum efficiency. Notably Le Corbusier focused significant energy on the “maison minimal,” a fact that is interesting because his notions of form also correspond closely to those seen in E.1027.

E.1027 was conceived as the modernist movement was supplanting excessive and aging design standards. Gray was not concerned with the ornate design standards of the past but rather with the quality of space in and around the house. Gray used modernist ideas of built in furniture and small scale design for E.1027 (Adam, 1987, p.195). The Bauhaus movement developed the notion that no longer could one introduce forms, functions and structures in isolation, as this was space without rationalization or internal cohesiveness (Lefebvre, 1968). Mastering global space meant forms, functions and structures are brought together in accordance with a “unitary conception” (Lefebvre, 1968). Cohesive design was developed out of space that considers the functional demands of its inhabitants by providing flexible space. In his writings “Towards a plastic architecture,” Theo van Doesburg (1924) specifically calls for the abandonment of static dividing surfaces. The new architecture is open therefore moveable panels were to be used. In conjunction, Theo van Doesburg (1924) describes “the new architecture is functional; that is to say, it develops out of the exact determination of the practical demands, which it contains with clear outline.” In harmony with newly emerging modernist ideals, E.1027 was designed with every space considered and nothing wasted. Areas were divided by movable or light partition walls, which allowed for flexible redesign (Adam, 1993). Rault (2005) describes the flexibility of E.1027 saying;

The furnishings and the architecture have multiple possibilities, the realization of space depending on individuals’ desire. Rooms can be reorganized with sliding partitions, movable screens, desks that fold out of the wall, tables emerging from cabinets, footstools emerging from tables.

In E.1027 the space was to be adaptable, while elements of the design were tailored specifically to the functions of the occupants. In addition to a flexible floor space, each room has multiple entrances to accommodate a variety of pathways or routes. Gray was very concerned with the logic of the flow of movement. In her studies of E.1027 Gray went so far as to draw a diagram to represent how she perceived people would move throughout the space.

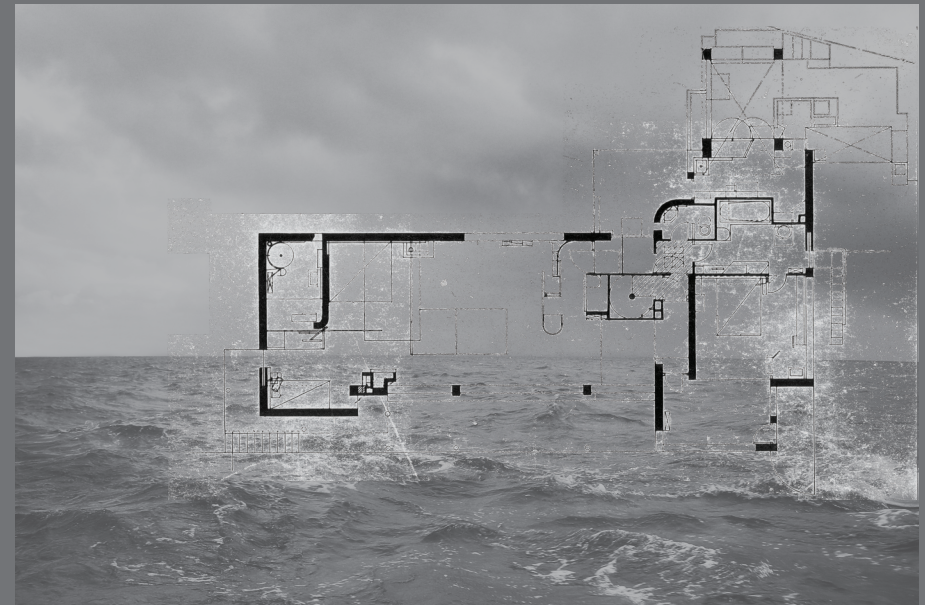


Figure 5: Exploration of E.1027 as a Continuation of Water Landscape

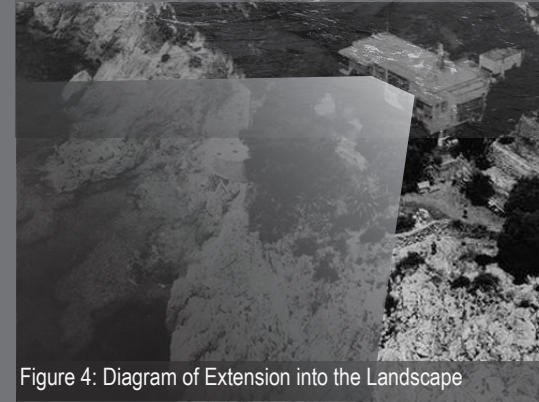


Figure 4: Diagram of Extension into the Landscape

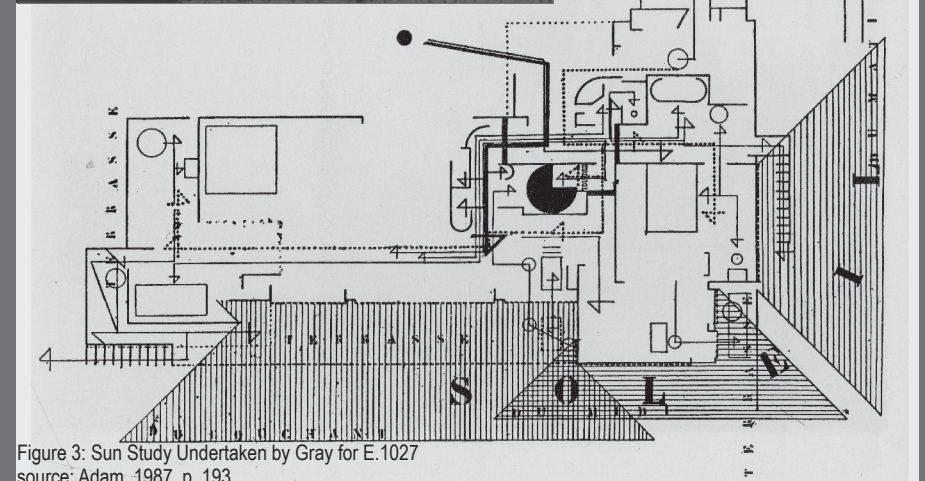


Figure 3: Sun Study Undertaken by Gray for E.1027  
source: Adam, 1987, p. 193





Figure 6: Occupants in Central Space



Fireplace and Folding Windows at E.1027  
source: Adam, 1987

## space and character

E.1027 was clearly designed and influenced by the surrounding modernist movement, however, Gray departed from the strict guidelines of modernism and incorporated her own ideas into the design. Gray was critical of the homogeneity of modern architecture saying "exterior architecture seems to have interested avant-garde architects at the expense of the interior" (Buisson and McLendon, n.d.). Gray's passion towards this topic is expressed through her writing;

We will be killed by hygiene!...No. They are intoxicated by the machine. But there is more than the machine. The world is full of living references, living symmetries.... Their excessive intellectuality wants to suppress those things that are wonderful in life....Their desire for strict precision has made them neglect the beauty of all these forms; spheres, cylinders, undulating and zigzag lines, ellipsoidal lines that are like straight lines in movement. Their architecture has no soul. (Rault, 2005)

Gray sought to develop the internal experience for the occupant and was ultimately able to achieve a sense of "place" in her house, dissimilar to the mechanistic machine like "feel" in houses being produced by her male counterparts. Norberg-Schulz discusses the disjunction between man and place noting that technology and science has lead us to the belief that we are disconnected from place. Like Gray, Norberg-Schulz was critical of the purely practical building. Gray describes her building as a living organism, and strongly critiqued total reliance on mechanistic gizmos. Perhaps her success and the reason why E.1027 is still influential today is because Gray was able to design a building that was well founded in place. The character of a place is described by Norberg-Schultz as an objective quality, present in all places. Many authors have reflected upon the "feel" of E.1027, which is likely the result of Gray's attention to both the context of the local site and to her numerous building details. Norberg-Schultz defines the spirit of a place or "genius loci" as pivotal to creating comprehensive design. Buildings can successfully concretize "genius loci" if they are able to "gather the properties of the place and bring them close to man"(Norberg-Schultz, 1973). Whether E.1027 is entirely successful in capturing the essence of the place where it was designed is debatable but one must credit Gray for beginning to understand the importance of "place" and "character" at a time when her counterparts were routinely ignoring this aspect of building.

## the continuous defining of space

E.1027 was designed for participation. The space is ultimately defined by the activities of its occupants. E.1027 is described by Buisson and McLendon as a "house (that) was made to be lived, un-made (défait), and re-made, through living." Rault (2005) discussed Gray's notion of the subject as "an active agent in her environment, forcefully shaping the space to receive her, more a participant than a mere occupant." The emphasis of the user as defining adaptable space begins to discuss the deleuzian idea of smooth space. Rault (2005) explains how "Gray imagined a modern subject who was in a continual process of becoming and reforming through engagements with built space." Rather than a structure imposed upon the dweller, E.1027 will adapt and remake itself to suit their needs. At the centre of E.1027 is the bed, not only used for sleeping but as a study, and place for entertaining (Buisson and McLendon, n.d.). Occupants define the role of the space, shifting it between private and public by their activities. A figure seated in the room may suggest study, while several people standing defines it as a place of entertainment. The bed as one element of the house works to define a dialogue between the user and the rest of the house (Buisson and McLendon, n.d.) (See Figure 6: Occupants in Central Space). E.1027 is ultimately a complex model through which to study space because of the various discourses of study that can be used to examine it.

