

## E.1027: *Maison en bord de mer* a prototypical vacation residence<sup>1</sup>

BY WILFRIED WANG

The house by the sea — *Maison en Bord de Mer* — formed the basis of Eileen Gray's spatial research, in this case applied to a vacation residence. The subsequent sequences of programmatic and typological researches into summer vacation facilities exemplifies Eileen Gray's interest in generalizing the comprehension and acceptance of compact places of abode during vacations. Her ability to thoroughly project a comprehensive and mutually supportive program for a large organization such as a vacation center was the ultimate result of these paths of research. Even though the project was never realized, its timing and documentation proves Eileen Gray's pioneering spirit.

### E.1027<sup>2</sup>

Eileen Gray's first free-standing piece of architecture and landscape design — the structure called E.1027 and built from 1926 to 1929 directly on the rocky coast of Roquebrune-Cap-Martin in the south of France — was explicitly designed as a compact house for summer vacations: a "*Maison en bord de mer*" was the title of the special monograph of the French avant-garde architectural magazine *L'Architecture Vivante* in the winter of 1929. While vacation residences were the domain of the wealthy, E.1027 was an unusual case of a demonstrative object brought into the world as a result of a challenge that its subsequent owner made to its designer: Jean Badovici (1893–1956), the editor *L'Architecture Vivante*, had invited Eileen Gray (1878–1976), the house's designer, to show the world what she meant by modern architecture. The project was conceived in 1926, at a time when the architectural discourse was framed by notions of standardization, economy of space and affordability of good design quality for everyone. The house's completion and the publication of the special issue falls in the same part of the year of 1929 as the meeting of the *Congrès International d'Architecture Moderne* in Frankfurt am Main, that was focused on the design and construction of housing for minimum existence, or *Existenzminimum*.

E.1027 was to accommodate up to eight vacationers to feel "completely comfortable"<sup>3</sup> in a useable floor area of 132 square meters (m<sup>2</sup>). Its typology is not that of a traditional residence or villa, but that of the "camping style"<sup>4</sup>. E.1027 was not meant as a model for conventional domesticity. There were no ascribed parents' or children's bedrooms, though there was a "master bedroom". While there are three separate bedrooms (two large ones and a tiny one for the maid), the other places of sleep are in the "living room"<sup>5</sup> or "large room"<sup>6</sup>, which can be transformed for other purposes,

and which was designed "in such a way that each of the inhabitants could, if need be, find there total independence and an atmosphere of solitude and concentration"<sup>7</sup>. The description of the house underscores this topic further:

*The problem of the independence of the room: each person, even in a house of reduced dimensions, should be able to remain free and independent. He should even have the feeling of being alone, and if he likes, completely alone<sup>8</sup>.*

Thus, in the living room, there is a 2.2 × 2 meters (m) divan for reclining, sitting, resting or conversing as well as a small *Davenport* divan — a convertible sofa — set in a projecting niche that can accommodate two people. Providing a little sense of privacy between these sleeping areas, a three-paneled paravent on a sliding track screens the two sleeping areas. With the exception of the maid's room — described in the explanation as "the smallest livable cell"<sup>9</sup>, each of these sleeping areas has its own means of egress. The master bedroom has a separate small balcony and an external staircase that is reached via the bathroom. Here again the design underscores "the independence of each of the rooms"; "although the house is quite small, there is a comfort that one would have thought possible only in a much more imposing house"<sup>10</sup>.

Therefore, in syntactical terms, E.1027 exhibits an openness and connectivity to the exterior that most normal houses or villas do not possess. Routes are deliberately circuitous, from the entrance sequence to the movement pattern throughout the house; a quality that Eileen Gray documented in the analytical diagram accompanying the special edition of *L'Architecture Vivante*. In this diagram, a series of lines with arrowheads indicate the many routes through the spaces. At the same time, in spatial compositional terms, she

#### On the previous page:

Eileen Gray's E.1027 Master Bedroom, 1:1 Installation, Akademie der Künste, Berlin. Photograph © Carsten Krohn, 2019.

provided different solutions to the accommodation of inhabitants, some more protected, others more exposed (even a hammock on the balcony outside the guest niche).

### Gray's enriching spatial economy

In E.1027, Eileen Gray was experimenting with her own notion of spatial economy:

*Thus this quite small house concentrates in a reduced space everything that may be useful for comfort and contribute to the joy of living. Nowhere have we sought a line or form for their own sake; everywhere we have thought of man, his sensibility, his needs<sup>1</sup>.*

The concentration of all necessary facilities within a limited space was undertaken while simultaneously providing a sense of comfort, even a wealth of choices from which the users were able to choose. Such an approach was the guarantor for success in accommodating up to nine people in a house with a useable area of 132 m<sup>2</sup>. As a result, the house feels more generous than its conventional contemporaries of the *Existenzminimum*. In E.1027, Eileen Gray had developed her own notions of spatial economy, that was in part related to the notion of the *Raumplan* by Adolf Loos (1870–1933) in one aspect, as outlined below, however, it was a notion of spatial economy that only existed in relation to an enrichment of spatial experience. This simultaneous presence of a feeling of spatial enrichment provides E.1027 with a sense of generosity that achieved by means of the architecture's following compositional qualities:

#### 1. Four types of spatial extensions

Adolf Loos' concept of spatial economy, an idea that his first biographer Heinrich Kulka (1900–1971) termed the *Raumplan*<sup>2</sup>, was based on the spatial sensation that one has when sitting in a tiny theatre box overlooking a larger auditorium: there is a compensatory feeling of security that is provided by the small box while sensing the generosity the larger space of the auditorium. This spatial relationship allows for a differentiated and enriching composition such as Eileen Gray used in the relation between the guest niche and the salon; the first type of spatial extension that she employed; she prepared an analytical diagram for this niche that was published in the special edition of *L'Architecture Vivante*. Eileen Gray further amplified this effect with a small, but meaningful detail: at the height of the head of a person lying in the guest bed there is a square opening in the window shutter framing the distant rocky coast. Here, she uses the idea of the *camera obscura* to enhance a sense of space.

The compensatory sensation of a small space overlooking a large one is also experienced when the person lying in the bed of the master bedroom views through the horizontal window towards the Mediterranean Sea; however, with an important additional quality, namely the fact that the right-hand end of the window frame is out of sight, thereby suggesting to the viewer that the horizontal panorama is infinite. This sense of infinity as a result of the viewer not being able to see the edge of an enclosure is the second type of spatial extension developed by Eileen Gray.

The third type of spatial extension is a modern variation of the Lloosian theatre box to auditorium relation. To explain the differentiation of the master bedroom in E.1027 in the special issue of *L'Architecture Vivante*, Eileen Gray prepared a diagram comparing a regular rectangular room against one with the same area that is divided in about two-thirds to one-third (actually according to the Golden Section) to accommodate a study next to the sleeping area. Rather than looking from a small box into a larger auditorium, in the master bedroom the view from the bed towards the study is not one of looking from a small volume towards a much larger one, quite the contrary. Yet, one experiences a spatial generosity. The sense of space of the sleeping area is enhanced.

While all the published photographs of E.1027 are towards beds and divans, none provide the view that the persons lying in these beds or divans have looking outwards. For this purpose, during the research conducted on E.1027, an analytical perspective was produced of the view from the square divan in the *salon* to show how Eileen Gray used the notion of the display of layers of colors and materials to create a neo-plasticist extension of objects, and by extension the observing subject, into space. The divan itself, the floor with its fields of tiles and the carpet, the double-level bedside table to the left, the two protecting walls with their covering such as tiles and the tubular cushions, the marine chart behind, all of these were laid out in a space extending composition. This is the fourth type of spatial extension that she developed. The term "concatenated extensions" was developed for this sense of expanding one's spatial experience by means of related compositional elements that stretch from the subject towards a larger context<sup>3</sup>.

Eileen Gray is likely to have known Adolf Loos' Tristan Tzara House (1925–1926) and the Knize Shop (1927–1928), both in Paris; she certainly studied Adolf Loos' project for a house in Lido, in Venice, for Alexander Moissi (1879–1935) that was both exhibited at the Parisian *Salon d'Automne* in 1923 and published in the inaugural issue of *L'Architecture Vivante* in the winter of 1923. Eileen Gray traced over the publication plans, developing a series of alternative versions in the manner of a critical alteration. These studies laid the compositional basis for E.1027<sup>4</sup>. While Adolf Loos' project for Alexander Moissi was not a house for minimal existence, Eileen Gray's studies brought forth a number of elements that were carried forward into the realized version of E.1027: the helical stair (much condensed in E.1027), the terraces and external stairs, the space divider with a semi-circular bull nose, compact bedrooms, the fireplace, etc. In her development of the Moissi House, she radically departed from any historical references in which Adolf Loos still was steeped, instead opting for an abstract modernist language.

Her *pièce de résistance* on the topic of types of spatial extensions, however, could be regarded to be the neo-plasticist delamination of fields of tectonic, material and color elements, the concatenated extensions. These four spatial compositions are not easily discernible when plans and photographs are viewed on their own. Without being there, without the opportunity of experiencing the real

composition, many commentators have lacked the first-hand experience. The conventional method of observing architecture has failed to inspire commentators to explore what lies beyond the surface. This lack of research and imagination, however, is not confined to the case of Eileen Gray and E.1027.

While Eileen Gray may have known of Adolf Loos' interest in placing rooms of different heights and sizes within a compact form, in E.1027 she demonstrates her own understanding of the idea of spatial economy while simultaneously enriching the user's experience. In her approach to enriched spatial economy she developed significant additions such as the *camera obscura* effect and the sensation of infinity. Eileen Gray made significant contributions to the notion of spatial economy through the invention of these four space extending examples. They are an important expansion of what has unfortunately become the orthodox reductive modernist planimetric compositional approach, an approach that rarely looks beyond the outline of the interior spaces for a way to offer more than the net internal area.

## 2. Individualized spatial enclosures

Distinct from the four techniques of spatial extension, in E.1027 Eileen Gray provided dense facilities in the immediate surroundings of resting areas. In the smallest of all spaces, the guest niche, a compact cupboard for bedlinen, a *mosquito* net, bookshelves, a reading light, storage space for a kettle, and a rotatable table that serves as a breakfast table or converts into a support for books, complete with a pencil case at the base of the bookstand to prevent the book from turning the pages on its own or from slipping down, she had thought of the guest's needs in the same manner as the designers of the luxury sleeping carriages, and more. The door behind the bed not only provides an individual means of egress for the guest, the two independently operable elements of the outer louvered shutter and the inner glass door allows the guest to control light and airflow. Similar facilities are offered in the other three sleeping areas, but not in the maid's room.

A person resting in such a space would thus feel well-served with an apparent surfeit of facilities, yet, they are not only quite essential, their accommodation on the specific fitted furniture as well as in the various bedside table designs gives the guest a sense of generosity that an otherwise bare, modernist interior does not provide.

Each resting and sleeping facility is designed differently, a fact that underlines Eileen Gray's ambition not only to prove her design acumen, but also to meet the challenge that she set herself: to show that each situation can elicit a range of solutions as long as there is the willingness to both imagine as well as to explore these situations with the utmost rigor. To Eileen Gray modern design and architecture is not the provision of a single-track answer to a defined need but the liberation of imagination at the service of different users.

The design of individualized spatial enclosures with fitted and loose furniture meets her own criticism of formulaic modernism:

*Technique isn't everything. It is only the means. One must build for man, so that he may rediscover in the architectural construction the joy of feeling himself, as in a whole that extends him and completes him, so that the very furniture, losing its individuality, merges with the architectural ensemble<sup>15</sup>.*

Equipped with such backgrounded extensions of the body, veritable architectural prostheses, the provision of actual space can be minimized. Coupled with the spatial extension techniques as outlined above, E.1027 could be experienced as a space capsule for vacationing guests in the manner of Atlantic steamships, sleeping carriages of the Venice Simplon-Orient Express, however, fixed to a privileged piece of the French Mediterranean coast in the *Maison en Bord de Mer*.

## From E.1027 to the Centre de Vacances

Eileen Gray was a pioneer in numerous fields, including the design for summer vacation accommodation and facilities. Her involvement with this topic was related to both her experience with public housing of the 1920s as well as her awareness of the debate on *congés payés* or statutory paid summer vacations in France. On this topic, the central French trade union, *Confédération Générale du Travail*, had made this topic part of their demands since 1925; however, it was not until the left-wing *Front Populaire* under Léon Blum (1872–1950) was voted into office in 1936 that paid summer holidays became a worker's right.

While for Eileen Gray, who was financially independent, staying at luxury hotels was always an option, she was conscious of the cost of extended stays in hotels. With the possibility of millions of French workers being able to spend time off work and therefore potentially in places other than their homes raised the question of affordable as well as meaningful vacation accommodation for large numbers. About a year after the completion of E.1027, Eileen Gray and Jean Badovici worked on a series of camping tents. One of these showed the system of an almost semi-circular unfolding, umbrella-like structure. The tent was closer to the concept of "*le style camping*" than the house of E.1027. According to Eileen Gray, it was "to be erected by one person, light enough to be carried on a motorcycle or in a car"<sup>16</sup>. Their umbrella tent foreshadowed the mass-production and design logic of Citroën's *Deux Chevaux*. In the early 1930s, Eileen Gray studied the design of minimum dwellings of around 33 to 40 m<sup>2</sup>, pavilions, single-family houses. The formal spectrum ranged from strict right-angled boxes to units with curved roofs, even steel and fabric structures. Inspired by constructional components such as flat and corrugated metal panels, prefabricated concrete profiles, steel tubes, she was investigating their formal properties in relation to their adaptation to mass-produced dwelling units. Not only were these designs left at a schematic level, they represent a broad spectrum of research rather than an in-depth typological study of inhabitation types or construction systems.

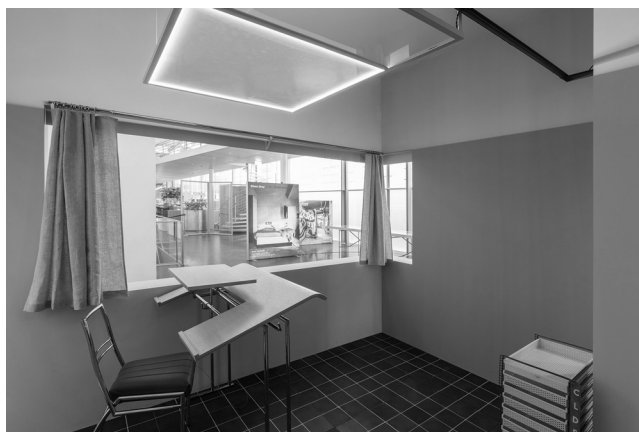
By far the largest project that Eileen Gray ever undertook was for *Centre de Vacances*, a vacation center for about 177



**01** Installation of Eileen Gray's Master Bedroom from the design for E.1027, curated by Wilfried Wang originally for the School of Architecture, The University of Texas at Austin here exhibited at the *Akademie der Künste*, Berlin, Spring 2019, view of the sleeping and changing area. Photograph © by Andreas (FranzXaver) Süß.



**02** Installation of Eileen Gray's Master Bedroom from the design for E.1027, curated by Wilfried Wang originally for the School of Architecture, The University of Texas at Austin here exhibited at the *Akademie der Künste*, Berlin, Spring 2019, view of the study area. Photograph © by Andreas (FranzXaver) Süß.



**03** Installation of Eileen Gray's Master Bedroom from the design for E.1027, curated by Wilfried Wang originally for the School of Architecture, The University of Texas at Austin here exhibited at the *Akademie der Künste*, Berlin, Spring 2019, detailed view of the coiffeuse. Photograph © by Andreas (FranzXaver) Süß.



**04** Installation of Eileen Gray's Master Bedroom from the design for E.1027, curated by Wilfried Wang originally for the School of Architecture, The University of Texas at Austin here exhibited at the *Akademie der Künste*, Berlin, Spring 2019, view of the hand washbasin area. Photograph © by Andreas (FranzXaver) Süß.

guests (1936–1937). Sited next to the sea, and served by a nearby motorway, she developed a prototypical program for a vacation and leisure center that broadened the pleasures of seaside activities (including a diving board) with a gymnasium, a theater combined with a cinema, dance stage and café; and a refectory for take-away food combined with a regular restaurant. There was to have been car

parking near the entrance, where she also foresaw a dispensary. The center was laid out with the key activities securing the four corners and the three residential types placed at the core, with if the temporary residential units — elliptical prefabricated dwellings — were sited on a skewed rectangular platform, rising a floor above the eastern part of the site.

There were three types of accommodation: type A was based on the prefabricated reinforced concrete elliptical tubes that Eileen Gray considered

*easily transportable by truck. Advantages: Single framework. Jointing of the sections, only assembly required. Mass-produced, they would be economic, for the Centre de Vacances, they would also serve as emergency housing for homeless people. Insulation: Plaster panels and glass-wool*<sup>7</sup>.

The project was displayed in the *Pavillon des Temps Nouveaux*, by Le Corbusier (1887-1965), in Paris 1937 and was published in the accompanying catalogue with an enthusiastic comment by Le Corbusier:

*A holiday center everywhere has appeal for leisure activities. As the result of paid holidays, we have seen during the summer of 1937, the country being invaded by those who benefit from it. ... Here is a project that has been remarkably well thought out. It is situated on the sea, it contains a restaurant organized with the latest methods of service and distribution. The movable camping site is composed of temporary cabins that can easily be erected and dismantled according to the influx of tourists. there is entertainment planned in a theater and cinema in the open air. Theater people (which kind? New ones, amateurs maybe) will be happy to discover stages in the country able to present their manifestations full of fresh poetry*<sup>8</sup>.

In the group of mobile units, there were about 21 units, most of these facing the sea. Type B consisted of single (8) or double bed (6) units with showers and hand washbasins; type C was also a mix of single (24) and double bed (16) units, however, just with hand washbasins. Showers were grouped in a collective sanitary space together with the toilets. The focus of the design was on spending time on the exterior, much of Eileen Gray's design energy was invested in the articulation of the ground floors.

While the model did not show any vegetation, it is safe to assume that Eileen Gray would integrate the buildings, treated as they were like free-standing pavilions, with the existing and new landscape elements, including shrubs and trees, analogous to her approach for E.1027. Seen from the vantage point of the 21<sup>st</sup> century, with commercialized vacation centers operating along the entire Mediterranean coast, her *Centre des Vacances* is a well-understood model. At the time of its inception, the proposal must have struck the visitors to the *Pavillon des Temps Nouveaux* as utopian. The guests, for whom the vacation center was planned, would have come from the mobile working and the middle classes. For them, an era of paid holidays had barely begun with the new left wing French Government just having passed legislation in 1936 granting every working person the possibility of spending a few weeks in a camp such as this one. Eileen Gray had evidently devoted a lot of time and energy on the high degree of resolution of each component and on the overall design. She must have had high hopes, especially with Le Corbusier's endorsement, that her design would

have been seen as a viable proposal. The fact that it was not realized must have been all the more disappointing to her.

## Notes

- 1 This essay is based on the research that was conducted by numerous students, members of the office of Hoidn Wang Partner and the author over a period from 2014-2017 culminating in the O'NFM\_7: E.1027, Tübingen-Berlin, Wasmuth Verlag, 2017.
- 2 In the abbreviation E.1027, the letter "E" stands for Eileen, the number 7 stands for the letter G, as in Gray; the number 10 stands for the letter J, as in Jean; and the number 2 stands for the letter B, as in Badovici.
- 3 Eileen Gray and Jean Badovici, typescript of the English language version of the "Description" of E.1027, 15, National Museum of Ireland, Eileen Gray Archive.
- 4 Ibid., 15.
- 5 Ibid., 13.
- 6 Ibid., 15.
- 7 Ibid., 13.
- 8 Ibid., 14.
- 9 Ibid., 24.
- 10 Ibid., 20.
- 11 Ibid., 25.
- 12 Heinrich Kulka, *Der Architekt Adolf Loos*, Vienna, Anton Schroll Verlag, 1964, 131. It was Kulka, who coined the term *Raumplan*. Loos spoke about the notions of economic spatial planning, but never used the word *Raumplan* itself.
- 13 Wilfried Wang, "E.1027: A Total Work of Modern Art", O'NFM\_7: E.1027, Tübingen-Berlin, Wasmuth Verlag, 2017, 73-79.
- 14 Wilfried Wang, "Three-Story House", Caroline Constant, Wilfried Wang (Eds.), *Eileen Gray: An Architecture for all Senses*, Tübingen-Berlin, Wasmuth Verlag, 1996, 84-87.
- 15 Eileen Gray in conversation with Jean Badovici, "De L'Éclecticism à Douce", transl. by Peter Adam, in *Eileen Gray: Architect, Designer*, New York, Harry N. Abrams, 1987, 236.
- 16 Eileen Gray quoted by Peter Adam, *ibid.*, 303.
- 17 Eileen Gray, *Architectural Portfolio*, National Museum of Ireland, Eileen Gray Archive.
- 18 Le Corbusier, "Un centre de vacances", *Des Canons, Des Munitions? Mercil Des Logis ... S.V.P.*, Paris, Éditions de L'Architecture d'Aujourd'hui, 1937, 80.

## References

- ADAM, Peter, *Eileen Gray: Architect, Designer*, New York, Harry N. Abrams, 1987.
- ADAM, Peter, "Eileen Gray and Le Corbusier", in BURDETT, Richard, WANG, Wilfried, 9H, London, 9H, 1989, 150-153.
- CONSTANT, Caroline, *Eileen Gray*, London, Phaidon, 2000.
- CONSTANT, Caroline; WANG, Wilfried, *Eileen Gray: An Architecture for all Senses*, Tübingen-Berlin, Wasmuth, 1996.
- DIAMOND, Rosamund, "Eileen Gray: An Introduction", in BURDETT, Richard; WANG, Wilfried, 9H, London, 9H, 1989, 148-149.
- GOFF, Jennifer, *Eileen Gray: Her Work and Her World*, Dublin, Irish Academic Press, 2015.
- HECKER, Stefan; MÜLLER, Christian F., *Eileen Gray*, Barcelona, Gustavo Gili, 1993.
- RAYON, Jean Paul, "Eileen Gray: The North Star and the South Star", in BURDETT, Richard, WANG, Wilfried, 9H, London, 9H, 1989, 164-187.
- SAFRAN, Yehuda, "La Pelle", in BURDETT, Richard, WANG, Wilfried, 9H, London, 9H, 1989, 154-163.
- WANG, Wilfried; ADAM, Peter, *Eileen Gray: E.1027*, Tübingen-Berlin, Wasmuth, 2017.

## Wilfried Wang

(b. Hamburg) Studied architecture in London; taught at the PNL, Bartlett, GSD, ETH Zürich, ETSAUN. With Barbara Hoidn, founder of Hoidn Wang Partner in Berlin. Professor at SoA UT Austin. Chair of the Schelling Architecture Foundation; member of Konstakademien, CICA, Akademie der Künste; Dr. h.c. from KTH; honorary member of OA.