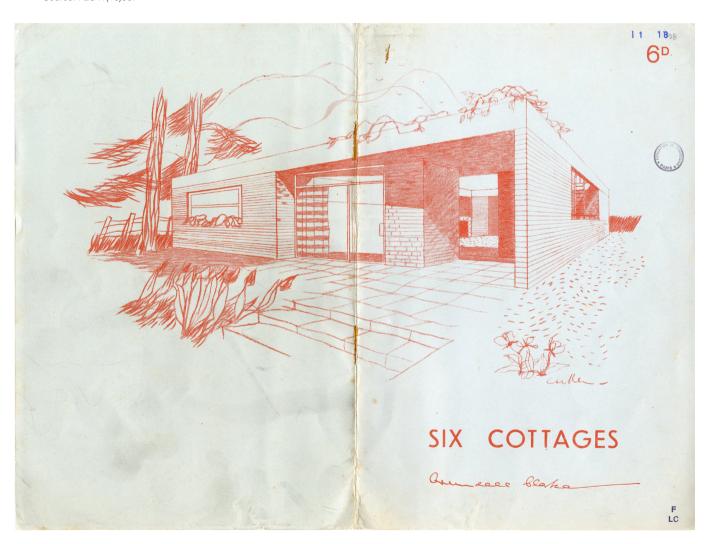
FIG. 1 Week-end Cottage perspective with signature in the bottom right corner. Source: FLC I1(18)98.



# MODERNIST RELATIONS FRANCE-ENGLAND: LE CORBUSIER, CLIVE ENTWISTLE AND EXHIBITION PROJECTS

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https://doi.org/10.4995/lc.2024.20699

**Abstract:** In the context of the Modern Movement and influenced by Le Corbusier's design principles, this text explores the significance of the Swiss master's exhibition pavilion and fair projects. These projects, distinct from conventional architectural timelines, serve as evidence of the ideas shaping the project process, reflecting a compression of time and manifestos in physical form. Focusing on collaborations with English architect Clive Entwistle for exhibitions in England, particularly the 1939 Ideal Home Exhibition, the article delves into Le Corbusier's innovative designs, including a Ville Radieuse housing unit, a prefabricated house, and a luxury house. The text highlights Le Corbusier's strategic use of exhibition architecture as a platform to communicate his principles and theories, showcasing his work as a «laboratory» of projects. The article emphasizes the intertextuality of Le Corbusier's work, where ideas transcend projects, contexts, and meanings, fostering a dynamic relationship between theoretical reflections and practical experiences in pavilion and exhibition designs.

Keywords: Le Corbusier, exhibition pavilion, Clive Entwistle.

Résumé: Dans le contexte du mouvement moderne et sous l'influence des principes de conception de Le Corbusier, ce texte explore la signification des projets de pavillons d'exposition et de foires du maître suisse. Ces projets, distincts des calendriers architecturaux conventionnels, servent de preuves des idées qui ont façonné le processus de projet, reflétant une compression du temps et des manifestes sous une forme physique. En se concentrant sur les collaborations avec l'architecte anglais Clive Entwistle pour des expositions en Angleterre, en particulier l'exposition Ideal Home de 1939, l'article se penche sur les conceptions innovantes de Le Corbusier, notamment une unité d'habitation Ville Radieuse, une maison préfabriquée et une maison de luxe. Le texte souligne l'utilisation stratégique par Le Corbusier de l'architecture d'exposition comme plate-forme pour communiquer ses principes et théories, en présentant son travail comme un «laboratoire» de projets. L'article souligne l'intertextualité du travail de Le Corbusier, où les idées transcendent les projets, les contextes et les significations, favorisant une relation dynamique entre les réflexions théoriques et les expériences pratiques dans les conceptions de pavillons et d'expositions.

Mots clés: Le Corbusier, pavillons d'exposition, Clive Entwistle.

Resumen: En el contexto del Movimiento Moderno y bajo los principios proyectuales de Le Corbusier, este texto explora la importancia de los proyectos de pabellones de exposiciones y ferias del maestro suizo. Estos proyectos, ajenos a los plazos arquitectónicos convencionales, sirven como prueba de las ideas que conforman el proceso del proyecto, reflejando una compresión del tiempo y de los manifiestos en forma física. Centrándose en las colaboraciones con el arquitecto inglés Clive Entwistle para exposiciones en Inglaterra, en particular la Ideal Home Exhibition de 1939, el artículo profundiza en los innovadores diseños de Le Corbusier, entre ellos una vivienda Ville Radieuse, una casa prefabricada y una casa de lujo. El artículo destaca el uso estratégico que Le Corbusier hizo de la arquitectura expositiva como plataforma para comunicar sus principios y teorías, mostrando su obra como un «laboratorio» de proyectos. El texto hace hincapié en la intertextualidad de la obra de Le Corbusier, donde las ideas trascienden proyectos, contextos y significados, fomentando una relación dinámica entre las reflexiones teóricas y las experiencias prácticas en los diseños de pabellones y exposiciones.

Palabras clave: Le Corbusier, pabellones de exposiciones, Clive Entwistle.

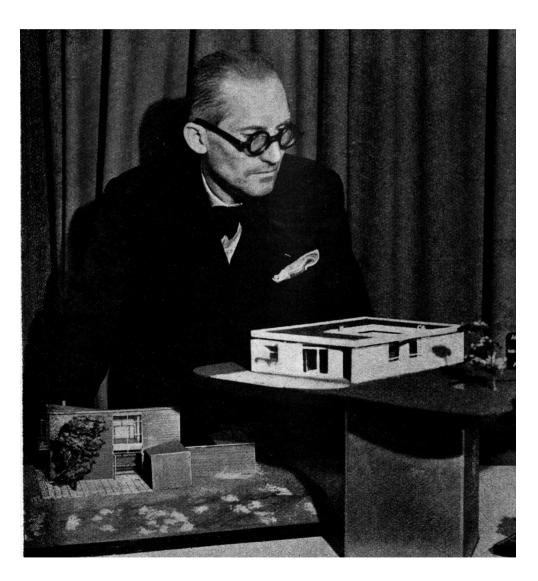


FIG. 2 Le Corbusier with the model of Week-end Cottage at the cocktail party at Arundell Clarke's house. Source: *The* builder Journal, v. 155, p. 820, 1938.

## **Opening Note**

Within the broad framework of the foundations of the Modern Movement and certain principles embodied in Le Corbusier's prolific design, theoretical and artistic output, the Swiss master's projects for exhibition pavilions and fairs carry emblematic contents of his own work and thinking. Because these projects do not follow the typical architectural timeframe, they appear as evidence of the ideas that guided the design and construction process, emphasizing the compression of time and constructing concepts in the form of manifestos. The characteristic of manifesto-architecture, according to the assumptions of the work under development, extends to his permanent works, particularly in the archetypes defined by the architectural concepts adopted by Le Corbusier.

As part of a broader study, this article seeks to reconstruct the trajectory of the projects carried out by Le Corbusier in partnership with the English architect Clive Entwistle<sup>1</sup> for exhibitions in England. It is important to emphasize that the research carried out for this article is based on documents and letters found in the archives of the Le Corbusier Foundation<sup>2</sup> and news reports from the time<sup>3</sup>, since little bibliography was found on these projects, apart from the citation of three of them in the fourth volume of Le Corbusier's complete works.

#### Paris/London Connection

Although he didn't have any projects built in England, Le Corbusier's assignments for exhibition projects are relevant in this context. In 1938, Le Corbusier drew up four projects for exhibitions in London, all developed in partnership with the English architect Clive Entwistle. In the first, a week-end cottage built for the Woman's Faire in 1938, Le Corbusier appears as a collaborator with the English architect. The other three projects were developed for the 1939 Ideal Home exhibition, organized annually by the *Daily Mail* newspaper: a full-scale fragment of a *Ville Radieuse* housing unit, presented in various stages of construction; a prefabricated house with a metal structure and a luxury house.

In 1935, Entwistle wrote to Le Corbusier for the first time, expressing his admiration for the French architect and asking if he could do an internship in his office<sup>4</sup>. For financial reasons, Entwistle was unable to fulfill his wish, as he recounted in a letter written on April 29th, 1937. In that same letter, the English architect explained to Le Corbusier that he was designing the aesthetics section of the exhibition organized by MARS, the Modern Architectural Research Group, the English section of CIAM<sup>5</sup>, and requested Le Corbusier images of his work: "Two years ago, I wrote to you to ask if I might work in your office, unfortunately financial difficulties prevented my realizing this fervent wish [...] It was your writing's that first decided me to become an architect and your buildings that have thrilled me into actual designing. [...] I am present designing and editing the aesthetic section of the MARS exhibition which will be held in June, and I wish to illustrate it with a number of your works"<sup>6</sup>.

The exhibition, which was scheduled for June 1937, only opened in January 1938. Shortly after the opening, Le Corbusier, at the invitation of the MARS group, went to London, where he visited the exhibition and took part in a series of events in his honor. In a letter to his mother dated January 17th, 1938, Le Corbusier wrote: "Je pars mercredi à 1 heure en avion pour Londres, ou je suis hôte d'honneur d'une grande réception le soir même". On this trip, the architect personally met Entwistle, who on February 12th, 1938 wrote to Le Corbusier inviting him to join him on a project for a country house in Italy: "I expect to be asked in the near future to build a house for a Swiss millionaire in Italy. He invariably gives designers a 'carte blanche' and has excellent discernment. It has occurred to me that I may not be able to do full justice to such a job alone and wondered, if the opportunity in fact occurs, whether you would care to do the job with me on a partnership basis. I know nothing definitive yet, but I should like to hear from you before negotiating further".

This project did not go through, but on May 5th, 1938, Le Corbusier replied to Entwistle regretting the failure of the plans and reinforcing his desire to work with the English architect: "Votre question de maison moderne sans compromis m'intéresse vivement, ainsi que celle pour travailleurs, pour la « mass-production ». Je suis donc tout à fait d'accord pour collaborer avec vous mais comment faire pour le faire utilement?" 9.

## Week-end Cottage

From this moment on, Entwistle and Le Corbusier began working on the design of a week-end cottage sponsored by the English investor and builder Arundell Clarke<sup>10</sup>, who, on August 8th, 1938, wrote to Le Corbusier saying that Entwistle had sent him the design and asked for a perspective of the house: "Entwistle has sent me over your design for the week-end cottage and I have decided to put this up at the Exhibition as I like it very much. I do not know what arrangement you have with Entwistle or how the publicity should be designated. At the moment I am using your name only but I would like a line from you telling me the exact position and the arrangement you have come to with him. [...] P.S. Can I have a perspective of the house please for the book I am publishing"<sup>11</sup> (Fig.1).

A few days after receiving this letter, Le Corbusier suffered a serious accident in St. Tropez. When he wrote to his mother on August 23rd, 1938, Le Corbusier spoke about the accident: "Il y a dix jours que je fus charcuté par l'hélice d'un yacht. [...] Il y avait 9 manières d'être tué ou affreusement estropié; <u>une</u> manière de s'en sortir, lisse comme un lézard. Le miracle s'est produit. Je l'appelle le miracle de St Tropez"<sup>12</sup>. While in hospital, Le Corbusier drew a perspective of the house and sent it to Clarke, as he reported again in a letter to his mother on September 21st, 1938, commenting on what he had done during his time in hospital: "J'ai fait 1 manuscrit pour Gisberger. 1 Article bien payé pour 'votre Bonheur'. 1 dessin de maison p. un industriel anglais"<sup>13</sup>.

In October 1938, Clarke invited Le Corbusier to a cocktail party at his London home to present the week-end cottage project to the British press<sup>14</sup>. Six projects by different architects were presented, but only one would be chosen to be built at that year's Woman's Fair. The press release sent out by Clarke said: "Six designs were submitted by the following architects: CLIVE ENTWISTLE, in collaboration with LE CORBUSIER. RALPH TUBBS. EDGAR JACKSON & BRIAN HERBERT. FELIX GOLDSMITH. BERESFORD MARSHALL. CHRISTOPHER NICHOLSON. Models have been made of all six and are on view. The winning design by the French Architect Le Corbusier in collaboration with his young English disciple Clive Entwistle, has many unusual features, including a fireplace in the open air and a lawn in the roof. Mr. Arundell Clarke feels that the public would be interested to see the cottage erected, and he is seizing the opportunity for doing so at the Woman's Fair at Olympia November 2nd to 26th" 15.

In response to Clarke, in a letter dated October 6th, 1938, Le Corbusier commented on the importance of this trip to London in consolidating his partnership with Entwistle for future projects: "Laissez-moi vous parler franchement: je ferais volontiers le voyage de Londres pour une chose utile à vous et à mes propres affaires. [...] Je vous me prierais donc, avant de prendre une décision pour mon voyage à Londres, de me donner vos idées sur la manière dont je collaborerai avec vous et Entwistle, et dans quelles conditions financières"<sup>16</sup>.

To be distributed during the cocktail party, Clarke produced a catalog entitled *Six Cottages*<sup>17</sup>, which presented the six weekend homes. The cover of the publication featured a perspective of the Week-end Cottage designed by Clive Entwistle in collaboration with Le Corbusier. Could this be the drawing Le Corbusier made while in the hospital? A signature in the bottom right-hand corner looks like Le Corbusier's. In another publication entitled "escape" was written: "A word about the Architects who collaborated with Arundell Clarke to produce this house. The house was designed by Clive Entwistle, a young English Architect, and it was inspired and qualified by his great master, the French genius M. Le Corbusier. Le Corbusier, through his writing, his clear-sighted vision, his 'human-ness', and, above all, by his building, has placed present-day architecture, which is the only right and true architecture of this day and age, in his eternal debt" 19.

The Clarke cocktail party was widely commented on in the English press. In the "Diary of an Architect" column of *The Builder* magazine, published on October 28th, 1938, there was a photo of Le Corbusier holding a model of the house with the title "Le Corbusier and the week-end cottage", followed by the following text: "Six architects were asked to submit designs for week-end cottages [...] and one was to be built at Olympia for the duration of the Woman's Fair. Names were: Clive Entwistle – in collaboration with Le Corbusier (I am frankly puzzled by this collaboration) [...] It is ironical that the winning submission should have come from a Frenchman – though not surprising, since he is the greatest of French modern architects, Le Corbusier." So runs an accompanying pamphlet. And so say all of us"<sup>20</sup>.

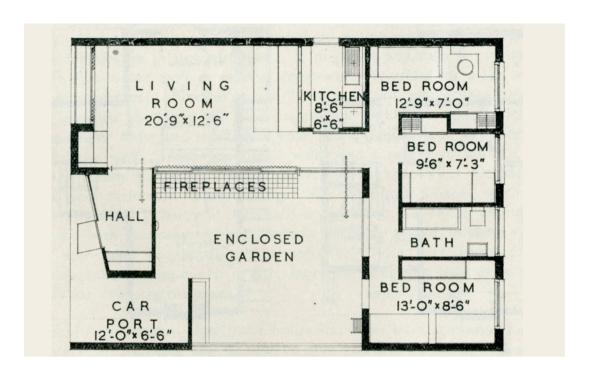




FIG. 3 Week-end Cottage floor plan. Source: FLC I1(18)100.

## FIG. 4

Week-end Cottage main façade built at the 1938 Woman's Faire in London. Source: RIBA's Archive 25859.

FIG. 5
Perspective Project B TCIAM (1934) - Plan for the
1937 International Exhibition
in Paris. Source: FLC 28353.

Three photos of the house built at the Woman's Fair and a plan were published in the *Architect's Journal* on November 17th, 1938, with the caption: "designed by Clive Entwistle in collaboration with Le Corbusier"<sup>21</sup> (Fig.2).

With an L-shaped plan enclosed by an almost square rectangle formed by walls, creating an internal courtyard, the Week-end Cottage resembles a reduced version of the pilotis floor of the Villa Savoye (1928). This, perhaps, represents Le Corbusier's attempt to democratize the bourgeois house matrix for the common man and the worker.

The house comprised a single-height prismatic volume with a rectangular base, a flat roof and a green roof, indicating, in a way, another of Le Corbusier's avant-gardes, the garden in the building, "La vue, les plantes, le soleil: c'est une conquête architectura le des temps modernes"<sup>22</sup>. The right-hand portion of the volume underwent a subtraction on the main façade to accommodate the garage and a recessed entrance hall volume. A sloping wall concealed the access door in shadow, implying that the house should not have a front.

The entrance hall volume connected to the living room on the left, integrating with the kitchen at the back through a window above the balcony. A small corridor led directly to the intimate part of the house, featuring three bedrooms and a bathroom. Behind the entrance hall volume, an internal garden with an opening to the outside, located on the side façade, provided residents with cut-out views of the external landscape, as suggested by Le Corbusier in the preface to the second volume of his complete works<sup>23</sup>. A pivoting door in the small hallway opposite the kitchen linked the interior of the house to this courtyard. A large fireplace occupied the entire length of the wall next to the door, serving both the interior and exterior. Above the fireplace, a ribbon window illuminated the room. In the hallway between the bedrooms, a glass brick wall allowed light from the inner courtyard to filter in.

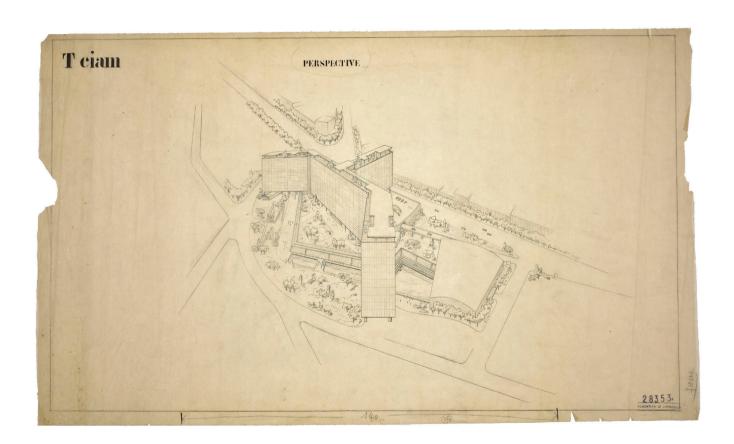




FIG. 6 Perspective of the access to the building - Ideal Home Exhibition. Source: FLC 30054.

In his weekend houses, Le Corbusier expanded upon his modernist designs with the bold intent of showcasing the diverse possibilities hidden in natural materials. In the projects Maison Errázuriz (1930) and Maison Jaoul (1937), the architect utilized a log structure and stone walls. In the Maison de Week-end and Villa El Sextant, constructed in 1934 and 1935, respectively, Le Corbusier employed exposed stone walls and raw brick for the fireplaces. Notably, in the Week-end Cottage, he opted for exposed brick walls in two tones, light and dark—a material widely employed in English construction and apparently demonstrating his preference for vernacular materials in country houses up to that point.

This design approach persisted into the 1950s when Le Corbusier once again incorporated exposed brick in the designs for Maison Fuerte (1950) and Maison Jaoul in Paris (1951-1955). Remarkably, both structures featured vaulted roofs, showcasing Le Corbusier's enduring exploration of materials and architectural elements in different architectural projects (Fig.3 and Fig.4).

We're not sure how much Le Corbusier had a hand in the Week-end Cottage. Apart from Clarke's publications, no drawings of this project have yet been found in the Foundation's archive. In the RIBA (Royal Institute of British Architects) archive, Le Corbusier's name appears as the architect, but a note completes the information: "This prototype weekend cottage was designed by Clive Entwistle, in collaboration with Le Corbusier, for property developer Arundell Clarke"<sup>24</sup>.

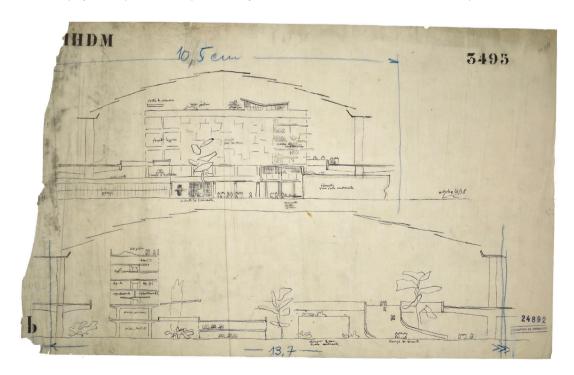
FIG. 7 Study drawing of the façade and section of the building - Ideal Home Exhibition. October 1938. Source: FLC 24892.

#### Ideal Home Exhibition 1939

On his visit to London for the Clarke cocktail party in 1938, Le Corbusier stayed in the city for three days on business, as he told his mother in a letter dated October 25th: "Je suis rentré dimanche matin de Londres: 1 heure 10 minutes - Londres - Paris. Trois jours d'occupations. Et bilan probablement positif. (Enfin!) Je bénéficie d'une cote considérable en Angleterre, et des gens ont intérêt à m'employer. D'ailleurs il semble que le destin s'oriente vers un nouvelle phase pour moi : les choses semblent s'arranger. A Londres, j'ai affaire à des gens de qualité Et même une affaire d'immense envergure est envisagée, ou Je suis sollicité. Mais j'ai appris à me taire. Et tant que les livres Sterling ne seront pas alignées sur une table, je ne dirai rien"<sup>25</sup>.

Among the business dealt with in London were three projects for the 1939 Ideal Home Exhibition, organized by the Daily Mail newspaper. A general plan for the exhibition, directly for the Daily Mail, and two houses, a dry-built steel house and a luxury house, for Clarke. In a letter dated November 18th, 1938, the English investor sent Le Corbusier the agreement: "I now confirm the terms on which you and Entwistle are doing the two projects for the Ideal Home Exhibition 1939. A. Big house: Your fees will be 6% of the estimated prime cost plus 15% profit. For the interior your charge will be £150, which will include all the furnishings, decorations and complete specification and perspectives, to enable us to get our concessions. B. Prefabricated House: Initial fee of £100. The fee for reproduction of these houses is to be discussed when we see how many orders are likely to result. Over and above these fees we agree to make you yourself a further payment of £100 for your collaboration and help, this latter fee to be paid when the Exhibition opens. As regards the other fees, assuming the cost of the Big House at £3,500, the fees will total £460 and I suggest that a third of this paid at the end of December, a third on February 15th and the balance on the opening of the Exhibition. I shall be glad to hear from you that these terms are acceptable by you. Now that the Woman's Fair is nearly over, I shall shortly be discussing the whole thing with Entwistle and I expect he will come over to see you to get the project of the Big House started. I am glad to hear that you already started on the Steel House"

The three projects in question were presented by Le Corbusier in the fourth volume of his complete works<sup>27</sup>.





## The "Ideal Home" exhibition

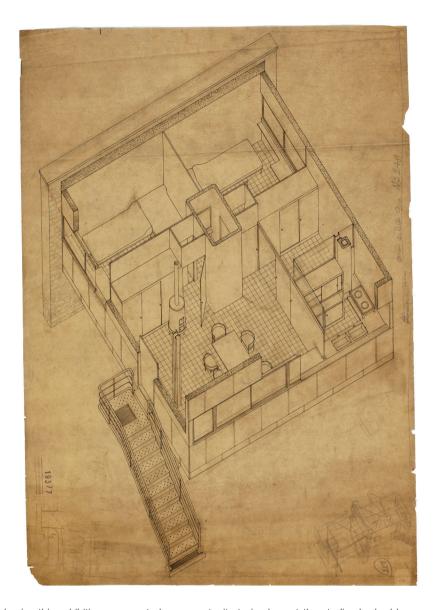
For this exhibition, Le Corbusier took up the principles presented in Project A and B for the 1937 International Exhibition, his third attempt to design an exhibition where the buildings would be presented in various construction stages to clearly demonstrate the new art of construction. In the third volume of his complete works, Le Corbusier says: "les exposants innombrables entrent en jeu et proposent leurs innombrables conceptions sur ce thème: le logis. [...] ce plan d'exposition peut être un potentiel d'énergie, le noyau d'événements futurs, le prétexte qu'il faut à tout grand mouvement pour commencer, une graine qui germera plus tard, après l'exposition, en dehors de l'exposition" in a way showing the representational charge that he presumed to incorporate into his exhibition projects (Fig.5).

In this project, the building would have been presented on a more modest scale, comprising only eight floors, and situated within the Motor Show Pavilion. The exhibition, titled "The Radiant City: Sun, Space, and Green", aimed to showcase the latest developments in modern homes, their equipment, as well as innovative building systems and concepts of contemporary urbanism to the British public. The building would be the heart of the exhibition and around it would be stands displaying all kinds of products related to housing, from construction products to the smallest utensils a house needs: "Ce fragment de bâtiment montre des types de façade en loggias brise-soleil (façade pan de verre), et enfin en ossature dénudée révélant tout le principe constructif. L'occasion est fournie de démontrer le hall d'entrée de l'immeuble, l'autoport, les ascenseurs, les rues intérieures, les diverses coupes de logis, simple ou duplex, les toitures en toits-jardins. En bref, c'était l'occasion de faire voir à l'immense public de l'Exposition de l''Ideal Home' tout le mécanisme d'une unité d'habitation des temps modernes" (Fig.6).

In the only perspective of this project, the entrance is marked with a sign that reads: The radiant city, sun, space, green next to a metal skeleton, probably evoking the studies carried out for the Radiant City presented in 1933<sup>31</sup>. Framed within this metal skeleton, the sun, a cloud, an eye, and an ear made three-dimensionally out of papier-mâché hovered over a model showing an intervention in South London following the principles of Radiant City urbanism. Connecting all the elements were literally "radiant" rays from the sun, "toutes choses appelées à intriguer le visiteur et à laisser en lui le souvenir des principes essentiels et décisifs, capables de conduire le nouvel urbanisme et la nouvelle architecture"<sup>32</sup> (Fig.7).

FIG. 8 Luxury house project for Arundell Clarke – Maison GM (February 23rd, 1938). Source: FLC 24315.

FIG. 9 Maison Loucheur floor plan in perspective (1928). Source: FLC 19377



It appears that, for Le Corbusier, this exhibition represented an opportunity to implement the studies he had been developing on residential buildings since the presentation of the *Immeuble-Villa* at the 1922 Autumn Salon. These buildings were designed with shared services, including catering, domestic service, and a restaurant, aimed at providing residents with access to green areas and sports facilities near their homes. At the top of the complex, there was a garden terrace equipped with a solarium, a party room, a gymnasium for sports, and a running track, creating an environment where people could enjoy outdoor activities.

This exhibition project was not accepted, as shown by the letters exchanged between Le Corbusier and Entwistle between December 1938 and February 1939. In a letter dated January 19th, 1939, Entwistle comments: "As you see, our second scheme has been turned down just as definitely as the first, and with equally bad grace. I have your two drawings of the scheme here in my office and am absolutely delighted by their simple artistry" 33.

#### Maisons montées à sec

The concept of building standardization had been studied by Le Corbusier since the 1910s. With the project for Maison Dom-Ino, the architect heralded the emergence of a new sense of architectural aesthetics – a precast concrete system made up of columns and flat slabs. In the first volume of his complete works, Le Corbusier mentions that the principle of this structural system was fully applied in the project for Maison Loucheur: "Il a fallu quinze années d'expérimentation de mise au point localisée sur les divers détails du système, pour permettre d'atteindre à la réalisation"<sup>34</sup>. The small metal houses were the continuation of this study on housing for low-income people, prompted by the law passed by the French Minister of Labor, Louis Loucheur, encouraging the construction of low-cost housing for workers<sup>35</sup>. The Loucheur houses were economical and standardized to the extreme, designed for mass production akin to cars on a production line. The design of these homes required a thorough study of the needs of the residents, as well as the construction standards, from the building to the furniture, placing equipment and building in total symbiosis. Every centimeter of storage, multi-purpose mobility spaces, needs, gestures, everything was studied down to the smallest detail<sup>36</sup> (Fig.8).

The project for the Loucheur houses incorporated the structural concept used in the Nestlé Pavilion of 1928 and presented a complete industrial solution with a system of metal pillars and beams, which supported precast slabs and walls as a resistant structure. The external cladding was made of zinc or iron sheets, according to a construction detail from the fall of 1928<sup>37</sup>. This project featured standardization and total industrialization of the elements: "La maison quitte l'usibe sur wagon, avec touts ses éléments, y compris l'équipement intérieur, accompagnée de son équipe de monteurs. Le monteur dresse la maison en quelques jours, sur place"<sup>38</sup>.



FIG. 10
Maisons montées à sec
Model (1938).
Source: FLC L3(20)13

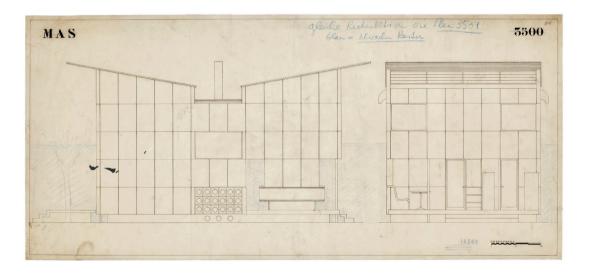
FIG. 11 Maisons montées à sec Façade (1938). Source: FLC 19368.

In the project presented in Œuvre Complète 1910-1929, the houses consisted of a pure prism with an almost square base raised on pilotis. The houses were arranged in pairs, separated by a stone wall, which, according to BENTON, was a response to the building and fire regulations of the time<sup>39</sup>. The only fixed internal walls were those of the bathroom volume, located in the center of the floor plan, around which the other functions took place. Next to the stone wall, two children's bedrooms could be transformed into a playroom, in line with the concept used in the design of Weissenhof's double house, day and night functions. Casiers, on the same principles as the 1925 L'Esprit Nouveau Pavilion, divided the rooms. The parents' bedroom was located next to the kitchen, opposite the bathroom door. A small living room completed the layout. The access to the house was via a metal staircase, as the house was on pilotis. On the ground level there was a space for work and rest that could be transformed into a small agricultural shed when the houses were built in the countryside (Fig.9).

The Maison Loucheur project never got off the ground, but the rue de Sèvres office didn't abandon the idea and, ten years later, with the metal houses project for the Ideal Home Exhibition, Le Corbusier saw the opportunity to put his studies into practice in London. On December 15th, 1938, the architect wrote to Clarke emphasizing the importance of this project for his office: "10) nous avons terminé les plans de la petite maison de série, dans les moindres détails, et construit une maquette provisoire. Cette maison, à mon point de vue, serait très importante et il serait indispensable de recherche sans retard l'industriel qui pourrait l'exécuter. Nous vous enverrons, la semaine prochaine, les plans exacts, les perspectives et les photographies de la maquette. 20) Entwistle nous a parlé de remplacer cette étude par une autre exécution de béton coulé. Je suis, en principe, peu enthousiaste pour cette solution car notre solution à nous représente le fruit d'années de travail et d'expérience dans ce domaine et il serait, enfin, de la plus haute importance que ces plans puissent être exécutes par la grande industrie" (Fig. 10).

The configuration of the 1938 *Maisons montées à sec* changed compared to the Maison Loucheur (1928), but the concept of total standardization of the building elements remained. Here the houses were presented individually and consisted of a prism divided into three parts, two side volumes with butterfly roofs, a solution used in the Nestlé pavilion of 1928, and a central, lower volume, on whose roof would be the gutter to collect the water from the sloping roofs. One of the side volumes was subtracted at the base to accommodate a "multi-functional" space, a piloti, in line with the Maison Loucheur project. Another change was made to the floor plan. The kitchen and living room were moved to the first floor, while on the upper floor—similar to the L'Esprit Nouveau Pavilion and Weissenhof's C1 house—the couple's bedroom opened onto the living room void, with a windowsill that doubled as a bench (Fig.11 and Fig.12).

In the internal perspective, presented in Œuvre complète 1938-1946, we can see the use of Thonet bent chairs, wall cabinets decorated with vases, sculptures, and books. From the kitchen, a window opens into the living room, integrating the rooms. This perspective also shows the clear division of the window's functions, used repeatedly by Le Corbusier,



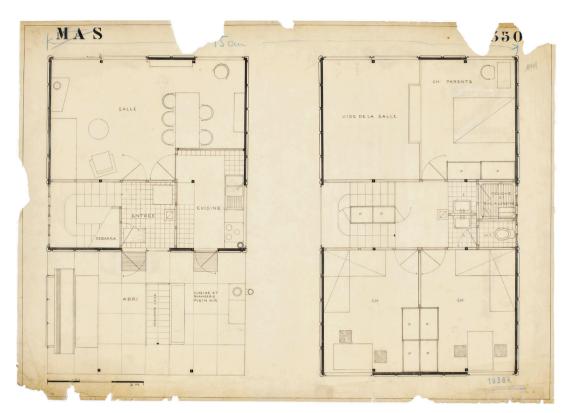


FIG. 12
Maisons montées à sec Plan (1938). Source: FLC 19364.

ventilation separated from lighting. We can see screens, used for ventilation, and the glass frames, probably fixed. On the right, there is an exposed brick fireplace and a sofa, with his dog Pinceau lying in front of it (Fig.13).

In the fourth book of his Œuvre complète the project was presented with plans, sections, façades, a perspective and construction details: "Here, several years of research have led to an appreciable result: total standardization of constructional elements" for the architect, standardization was fundamental for the future of architecture, and this project seems to point the way.

## The luxury home

The luxury home, Maison GM<sup>42</sup>, was an enlarged version of the *Maisons montées à sec*. The concept used was the same, with a metal structure, zinc sheeting and a butterfly roof, but on a different scale. The house had an L-shaped floor plan, with functions distributed across three levels. Services were located on the first level, the dining room, living room, and library on the second level, and bedrooms on the third level. These spaces were interconnected by a ramp positioned along the central horizontal axis of the plan. The rectangular volumetry of the building was complemented by a patio following the rise of the ramp and a piloti with a garage, marking the main access.

Some of the architectural guidelines of this house refer to the Maison Errázuriz, designed by the rue de Sèvres office in 1930 for a remote area of Chile, on the shores of the Pacific Ocean. In the memorial he sent to Mathias Errázuriz, owner of the Chilean house, on April 24th, 1934, Le Corbusier wrote: "Vous remarquez la forme inattendue des deux pans inclinés de la toiture. Cette inclinaison est dictée par la rampe qui monte à la sous-pente. On gagne ainsi, un cube important de bâtiments et par-dessus le marché on bénéficie d'un effet architectural capital: la lumière intervient d'une manière complete"<sup>43</sup>. At Maison GM, the slope of the roof was also dictated by the slope of the ramp, starting exactly at the beginning of the ramp.

As in the Maison Errázuriz, where "la position de la cheminée qui profite du cube de la rampe détermine une subdivision dans la grande salle" in the Maison GM, the volume of the fireplace, positioned along the axis of the ramp in the center of the room, determined the subdivision into dining room and living room. Next to the side wall of the living room and library, one and a half wall modules were occupied by cupboards. The distinguishing feature of Maison GM was that the rooms were lit by smaller windows. In the living room, an undivided square window replaced six metal panel modules on the facade. In the dining room, two smaller windows and a door illuminated the room.

At Maison GM, the master bedroom was under the sloping roof, followed by the bathroom and an internal courtyard. The mistress's bedroom was next to the rear façade and made use of the same bathroom. The office was at the opposite end of the house, on an intermediate level. As in the Maison Errázuriz, "La chambre à coucher est prévue en sous-pente; celle comporte un cabinet de toilette, un W.C. et la chambre elle-même. [...] La chambre de Madame se trouve dans le petit pavillon qui est relié à la salle ou au vestibule par un petit pont en bois ou en béton ou en fer"45.

Despite having similar architectural guidelines, the two houses were somewhat opposite, in tectonic terms. The Maison Errázuriz, according to Frampton, had a "neo-vernacular manner, an expression that was at one and the same time archaic and modern"<sup>46</sup>. Vernacular in its construction system and materials, wooden logs, rough stone and Roman tiles; modern in its exposed structure, volumetry and large window frames. At Maison GM, this vernacular construction system is replaced by an industrialized and standardized system, making it modern in every sense.

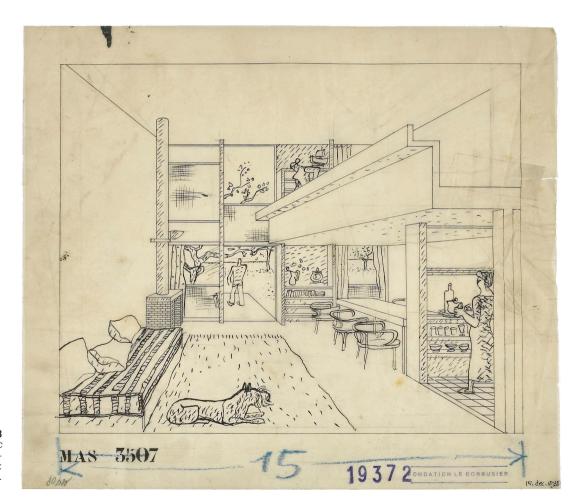


FIG. 13

Maisons montées à sec
Internal perspective (December 15th, 1938). Source:
FLC 19372.

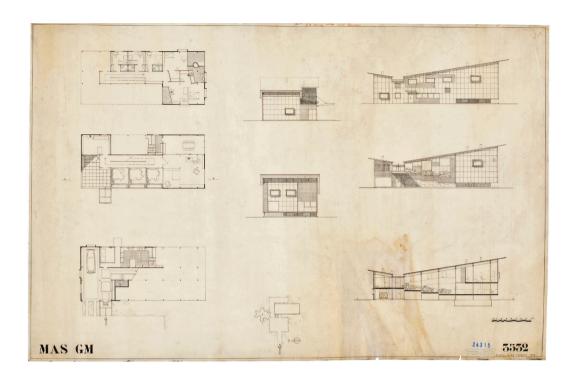


FIG. 14 Luxury house project for Arundell Clarke – Maison GM (February 23rd, 1938). Source: FLC 24315.

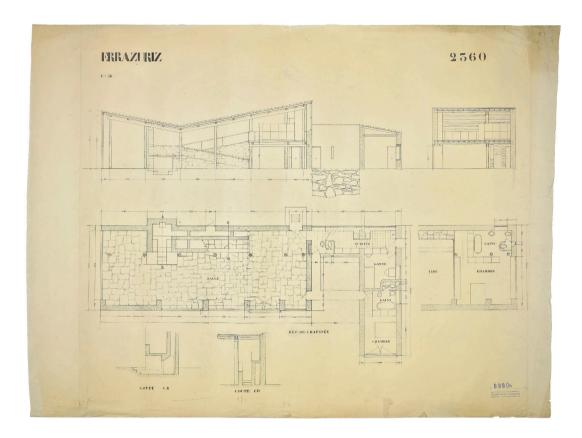
## Conclusion

We can observe that Le Corbusier used the design work in partnership with the English architect Clive Entwistle to continue the studies that had been carried out in the Rue de Sèvres atelier. In terms of collective housing, Le Corbusier made another unsuccessful attempt to construct a full-scale building to present all the innovations in modern housing and construction methods. The project for the Ideal Home exhibition in 1939 encompassed a series of experiments related to collective housing, starting with the Immeuble-Villa presented in 1922 and 1925, followed by projects A and B for the 1937 exhibition, and reaching its culmination in the Marseille Housing Unit in 1945.

Between 1930 and 1932, Le Corbusier had the opportunity to build the Immeuble Clarté in Geneva, Switzerland, which integrated the concepts of the Immeuble-Villa with a series construction featuring a metal structure. This construction followed the studies conducted at the Rue de Sèvres atelier for the Loucheur houses during the same period. The Maisons montées à sec, from 1938, extended these studies on dry construction, and in 1950, these principles reappeared in the design of rural houses in Lagny, France, in a project that included houses constructed from profiled and folded aluminum sheets.

In the fourth book of his complete works, Le Corbusier presents the houses for foremen S.P.A. Lennemezan, where he combines the two projects, Loucheur and M.A.S. The plan follows the same principles as the Loucheur house, with the living room, kitchen, bathroom, and bedrooms on the same floor, along with an open covered area on the first floor. However, the flat roof of the Loucheur house is replaced by the butterfly roof of the M.A.S. house. For this project, the architect proposes the use of local materials and labor, advocating for "maçonnerie de pierre, toiture et planchers de béton, pan de verre ou autre en menuiserie de bois" 47, thereby returning to vernacular materials.

In the project for the luxury house, Le Corbusier aimed to apply the concept of the Maisons montées à sec to a bourgeois weekend house, leaving aside the rustic materials used in the Maison Errázuriz (1930), Villa "Le Sextant" (1934-1935) and the Maison Jaoul (1937). However, a consistent volumetric matrix persists in all of them: a regular prism with a butterfly roof, forming a parallelepiped that undergoes subtractions, additions, and/or deformations according to the master's artistic vision. According to Le Corbusier, "La construction rationnelle par cubes ne détruit pas l'initiative de chacun. Il n'y a qu'à en jouer suivant ses goûts"<sup>48</sup>.



That said, the wealth of information contained in each of the projects presented can be seen. It can be seen that the architect sought, through his exhibition architecture, to convey the principles of his own work and his thoughts to society, using the representative character and the opportunity provided by this type of work to prospect and disseminate his theories and thoughts, formulating there a kind of "laboratory" of projects, in which certain principles adopted in architectural concept of other works were fostered. Since, as Benton (2013) said, "a fundamental characteristic of Le Corbusier's work is its intertextuality. Ideas flow from one project to another and from one stage to the next, frequently changing context and meaning along the way"<sup>49</sup>.

With the exception of the project for the Wek-End Cottage, none of the projects were built, and Le Corbusier never received the fees due for his work, as we can see in the letter sent to Clarke on February 14th, 1939: "Permettez-moi de vous parler bien franchement et amicalement. Je suis un peu étonné d'être sans aucune nouvelle de vous et sans aucun paiement. Je veux espérer que ce n'est pas l'état de votre santé qui vous a empêché de suivre régulièrement cette affaire et je me permets de compter sur vous pour une réponse favorable" 50.

And in the letter sent to Entwistle on that same day: "Avez-vous pu obtenir les honoraires du Daily Mail? Si oui, il serait bien agréable pour moi que vous les partagiez avec nous à bref délai. Donnez-moi des nouvelles par retour du courrier, s'il vous plaît. Également sur la question de la petite maison de série"51.

The relationship between the theoretical reflections and the experiences put into practice in the pavilion and exhibition projects, given the representational content of certain of Le Corbusier's design attributes, which were dynamic throughout his work, opens up an extensive chapter on these relationships and his vast architectural and urbanistic production. Already densely mapped and studied, Le Corbusier's work still offers new horizons for investigation, in this case, the permanence of pavilion and exhibition projects in his perennial oeuvre.

FIG. 15 Project for Maison Errazuriz (1930). Source: FLC 8980B. Auteur

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#### Notes

- 1 Clive Entwistle (1916-1976), English architect self-educated born in London. Source: https://architecture.arthistoryresearch.net/architects/entwistle-clive. Accessed on November 1st, 2023.
- 2 Researched in loco and/or online, in the archives of the FLC in Paris
- $3\,$  Researched in loco at the libraries of NYU, NYPL and Columbia University, in New York.
- 4 FLC E2(1)176
- 5 Carlos Montes Serrano; Francisco Egaña Casariego. "Le Corbusier en Londres, 1938". (EGA Expresión Gráfica Arquitectónica, nº 24, 2014), p. 50.
- 6 FLC I1(18)10.
- 7 FLC R2(1)244.
- 8 FLC I1(18)17.
- 9 FLC I1 (18) 19.
- 10 Arundell Clarke, an English businessman interested in furniture and decoration. Source: FLC I1 (18) 106.
- 11 FLC I1(18)20.
- 12 FLC R2(1)263.
- 13 FLC R2(1)264.
- 14 FLC I1(18)30.
- 15 FLC I1(18)108.
- 16 FLC I1(18)29.
- 17 FLC I1(18)98.
- 18 FLC I1(18)97.
- 19 FLC I1(18)97.
- 20 Le Corbusier and the Week-end Cottage. *The Builder* (London, October 28th, 1938).
- 21 Architects' Journal (London: November 17th, 1938) p. 790.
- 22 Le Corbusier. *Le Corbusier: Œuvre Complète 1929-1934.* (Zurich: Les Éditions D'Architecture, 1934), p.159.
- 23 Le Corbusier. Le Corbusier: Œuvre Complète 1929-1934. 1934, pp.7-9.
- 24 https://www.ribapix.com/ accessed on September 21st, 2023, at 6:45 PM.
- 25 FLC R2(1)250
- 26 FLC I1(18)38.
- 27 Le Corbusier. *Le Corbusier: Œuvre Complète* 1938-1946. (Zurich: Les Éditions D'Architecture, 1946), pp.13-15; p.26; pp.38-41.
- 28 Le Corbusier. Le Corbusier et Pierre Jeanneret: Œuvre Complète 1934-1938. (Zurich: Les Éditions D'Architecture, 1939), pp.140-147.

- 29 Le Corbusier. Le Corbusier: Œuvre Complète 1938-1946, 1946, p. 13
- 30 Le Corbusier. *Le Corbusier: Œuvre Complète 1938-1946*, 1946, p.14.
- 31 See: Le Corbusier. The Radiant City. (Nova York: The Orion Press, 1967).
- 32 Le Corbusier. Le Corbusier: Œuvre Complète 1938-1946, 1946, p.14.
- 33 FLC I1(18)55.
- 34 Le Corbusier. Le Corbusier et Pierre Jeanneret: Œuvre Complète 1910-1929. 1929, p.23.
- 35 This law proposed the construction of 260,000 low-cost multifamily homes over a five-year period. Source: Jacques Barsac. Charlotte Perriand: L'œuvre complète volume 1 1903-1940. (Paris: Éditions Norma, 2015), p. 122.
- 36 Le Corbusier. Precisões: sobre um estado presente da arquitetura e do urbanismo. (São Paulo: Cosac & Naify, 2004), p. 113.
- 37 FLC 19352 (Automne 1928).
- 38 Le Corbusier. Le Corbusier et Pierre Jeanneret: Œuvre Complète 1910-1929. 1929, p.199.
- 39 Tim Benton. *Le Corbusier and the Loi Loucheur.* (London: AA Files, September 1984, No. 7, September 1984), pp. 54-60.
- 40 FLC I1(18)42.
- 41 Le Corbusier. Le Corbusier: Œuvre Complète 1938-1946, 1946, p. 38.
- 42 This indication appears on the drawing in the book *Le Corbusier:* Œuvre Complète 1938-1946, dated February 23rd, 1939.
- 43 FLC I1(17)20
- 44 FLC I1(17)20.
- 45 FLC I1(17)20
- 46 Kenneth Frampton. *Le Corbusier.* (London: Thames & Hudson, 2001), p.133.
- 47 Le Corbusier. *Le Corbusier: Œuvre Complète 1938-1946*, 1946, p. 30.
- 48 Le Corbusier. Le Corbusier et Pierre Jeanneret: Œuvre Complète 1910-1929, 1929, p.23
- 49 Benton, Tim. In: D'ayot, Catherine Dumont. Le Corbusier's Pavilion for Zurich: Model and prototype of an ideal exhibition space. (Zurich: Lars Müller Publishers and the Institute of Historic Building Research and Conservation, 2013) p. 131.
- 50 FLC I1(18)65.
- 51 FLC I1(18)66.