

Maddalena Mameli

**Le Corbusier
and Costantino Nivola**
New York 1946-1965

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In copertina: Saul Steinberg, Paris/Sardinia, 1963
Ink, pencil, watercolor, oil stick, and collage on paper, 65,5 x 53,3 cm
Cover drawing for *The New Yorker*, October 12, 1963
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The Home away from Home

by Alessandro Fonti

In her memories of the time spent as a teenager in Le Corbusier's new home, Marie Jaoul delivered the most trenchant judgement on the apartment's domestic comfort: the pan-optical effect of the open plan and the lack of interior soundproofing prevented any individual privacy, undermined the harmony of shared living, made any flirt unthinkable, "a home for statues". The young Jaoul reacted appropriately and radically to the uprooting she experienced in the Maisons Jaoul from the domesticity of the traditional middle class single-family house, from the architectural "programme" that Le Corbusier considered simply outdated. In actual fact, the Maisons Jaoul paradoxically reflected, at ground level, the layout of Le Corbusier's attic in Paris, which had marked his achievement of middle-class status because "we can drink our coffee in the drawing room" – as he joked with Yvonne after he had managed with some effort to squeeze in there a sofa and a coffee table.

The external soundproofing of the dwellings of the *Unités d'Habitation*, which enables discreet coexistence of adjoining families in an apartment building, was difficult to achieve within the individual dwellings themselves owing to the necessary lightness of partitioning walls. Le Corbusier had been aware of this issue from the start, since the design of Maison Dom-Ino, in 1916, when he had added to his draft patent for a hyperstatic reinforced concrete framework "freeing" the floorplan from load-bearing walls the title of a second patent for partitions which however were never again mentioned later, as if he had subsequently felt they were no longer relevant, at least for interior comfort. The Maison seems designed for absolute intimacy, *ideal* for a couple, similarly to the sleeping area of his home, where the bed, the wardrobe and the sanitary fixtures shared the same space, as nonchalantly as in an old hotel, separated from the living area only by a light wooden partition. The "glass house" on the edge of the Bois de Boulogne where one can imagine living naked in the perfect transparency of far-away horizons, as in the

photos at the *Petit Cabanon*, while painting the walls in the nude, like a cave painter. But the attic was too luminous and had to be darkened (*brise soleil*) and the “small cabin” in the shade of the pine trees of Cap Martin was a gift for Yvonne, exasperated by the blinding luminosity of the “glass house” in the summer.

Indeed, Le Corbusier seemed to have quite a vague concept of domestic privacy also when, to make a hospitable gift, he painted on his initiative on the walls of his friends’ homes, something not everybody appreciated quite as much as the Nivolas did. In a nutshell, for Le Corbusier the habitat was the habitat of Humankind, not of specific individuals; it was the Modulor on which the *petit cabanon* was sized. And the cabin was an experimental laboratory for the design of housing to the human scale he had developed in 1946, during his long sea journey to New York as the head of the French diplomatic-technological mission. In its full form, which aligned the decimal metric system with the Anglo-Saxon system, making it universal, the Modulor immediately became, in the development of the project for the United Nations’ building, the Icon of the UN’s Neo-humanistic universality. Le Corbusier eventually identified himself with the Modulor system physically too, in the sand-cast of his body that he made throwing himself onto the sand on the East Hampton beach, while playing with Nivola and his children, perhaps thereby creating the prototype for the anthropometric bas-reliefs casts in the reinforced concrete of the *Unités* in Marseilles.

In the Nivola’s home, the “statuesque”, non-domestic Universality of the Maison Jaoul seemed to become humanised by the warmth of family life and, taking shape in the sand-cast, it seemed to take on individual, personal identity, to become Le Corbusier himself, Le Modulor, the Universal Someone that, still indefinite, had already inspired the “glass house” and the Maisons Jaoul: “He” was the statue of the “home for statues”.

Based on the historical facts documented and reconstructed fully by Madalena Mameli, we learn that it was only in New York, in the home-away-from-home of European exiles, that Le Corbusier experienced the domestic life of a family – to whom he would later confess that, having known them, he now regretted not having had children of his own – becoming together *Père Corbu* and Le Modulor, while at the same time he pursued the peak of all possible ambitions: the project for the United Nations’ world headquarters, conceived in a global administrative capital from whence the UN’s CIAMs (*Congrès internationaux d’architecture moderne*) led by Le Corbusier himself, would design and direct global reconstruction and planning in accordance with the Modulor system, proposed as a standard measurement system for converting the US weapons industry to the service of global reconstruction.

The Nivola family too – a Jewish exiled and a Sardinian immigrant, educated and happy refugees between Greenwich Village, the Hamptons and the UN building in the victorious and ‘radical’ NY of Informality and the International Style – almost seemed like an advertisement for the UN, at the magic moment when Utopia seemed close to being achieved through the governance of world peace, through the construction of Universal Harmony. This was the time before Le Corbusier was ousted during his first absence in Europe and robbed of the project by what he dubbed a “band of gangsters” headed by Wallace Harrison, the architect of the Rockefellers – donors of the plot for the UN headquarters. Harrison would colour blue the “glass building” that Le Corbusier had imagined perfectly transparent and without brise soleil. Soon after, the logic of the opposing blocs and the Cold War would annihilate the original Utopia of the UN, while Le Corbusier would be commissioned to build the capital of the New India, one of the very few “Non-aligned Countries”.

Before this book, the relationship between Le Corbusier and Nivola had been witnessed by two of LC’s *Carnets* entitled “Album Nivola I, II” – two spiral sketching pads, difficult to find in NY – a gift by Costantino to the “master of harmony” to whom he offered his studio for painting and who reciprocated with teaching. On one cover, Le Corbusier wrote “*très important*”; it contained sketches for Chandigarh. Certainly, from 1946 on, the *carnets* were mostly travel journals, as his life became one big journey, which linked the experiences of his projects for New York, Bogotá, Marseilles, Chandigarh, shows and conferences. With sketches and notes, the *carnets* recorded his inhabiting this space through his project-design mindframe, his being at home away from home, from any home, in the “acoustic” continuum of architecture which, from 1948, he could only define as *espace indicible*, definitively marking its modernist character, both self-referential and “extra-referential”.

Often in the air, in the voluptuous calm on board his favourite Lockheed Constellation (that with aluminium surface of Air India) finally at home in a dwelling “as exact as an airplane”, the *Carnets* record the endless dialectic between his attention to and love for the existing and the ideation of architecture that Le Corbusier called “*joie de vivre*”, if one is an architect. Le Corbusier’s *joie de vivre* is recorded in the *Carnets*, in his architectural sketches and designs – “the *main ouverte* to receive and give” – which were his way of “killing time” productively, saving it from the boredom that dulls creative life. This he did in New York too, on a Monday morning in 1946, “wrapped in European solitude” at the table of a restaurant, drawing on a *carnet* the purist harmony of the laid table. Then it happened that a young Sardinian artist he had barely met invited him home for lunch.

Introduction

In October 1963, Saul Steinberg depicted on the cover page of *The New Yorker* of 12 October 1963 a drawing-room conversation between two elegant ladies holding drinks and cigarettes. Their dialogue was shown graphically by two speech bubbles in the form respectively of a city map and a geographical map emerging from their red lips. One bubble showed the Paris of the *rive gauche* and the neighbourhood of Rue S. André des Arts, beloved by Le Corbusier, scattered with art galleries displaying contemporary art, antiques and, especially “primitive” art¹, the other describes Sardinia and its many features. Sardinia and the culture of its remote places thus became a topic of conversation of the city’s most exclusive drawing rooms and could enter into a dialogue with Paris and 20th century avant-garde art. In New York, Steinberg was a sympathetic witness to the friendship between Le Corbusier and Costantino Nivola and to Tino’s return to its cultural roots. The cover of New York’s most high-brow and cosmopolitan weekly magazine would thus seem to portray the dialogue between Nivola’s mature art, strongly connoted by Sardinia, and Le Corbusier’s more avant-garde and universal art, born in the Cubist Parisian milieu of the 1920s.

The “master of modern architecture” and the young Sardinian artist met in New York in 1946, during Le Corbusier’s visit for the project for the UN headquarters. In his spare time from work on the international committee, Le Corbusier was often a guest of the family and in the studio of the young artist, with whom he struck up an important friendship, to which limited attention has been paid to date (just as to LC’s post-war adventure in New York), despite the high value attributed to the two *Carnets Nivola*, a gift by Costantino

1. The young Le Corbusier came to Paris in the second half of the 1910s and initially took up lodgings in the area of Saint-Michel-Notre Dame; R. Gabetti, C. Olmo, *Le Corbusier e l’Esprit Nouveau*, Einaudi, Milano, 1988.

and catalogued with the wording “*document très important!*” in the archives of the Le Corbusier Foundation in Paris.

Between 1946 and 1948, Le Corbusier was in New York as the French delegate for the project for the UN Headquarters, but more especially to propose his universal programme for the global urban and architectural planning of post-war reconstruction through the *Congrès internationaux d'architecture moderne* (International Congresses of Modern Architecture) proposed as an official body of the UN². The milieu of the European artist diaspora, the Nivolas' hospitality and their cosy family atmosphere allowed him to complete the theoretical formulation of his *Modulor* as a harmonious system for industrialisation of the building sector and its realisation in the *espace indicible*³ which would later inspire his architectural projects in Marseilles, Chandigarh and Ronchamp.

Costantino Nivola had spent his childhood in a geographically isolated rural setting, a small village governed by the rituals of archaic Sardinia and by the unwritten codes of the traditional building craft. His artistic development, on the other hand, was to take place in Milan, which at the time, in the 1930s, was the capital of the most ideologically contradictory European architectural ferment, a sophisticated cultural environment with an inevitably ambiguous relationship with the Fascist regime⁴. In New York, Nivola's artistic sensitivity enjoyed the privilege of the dialectics between polar opposites: his native background and the metropolitan dynamics, with highly creative results. His work, especially his sculptures made with the sand-casting technique, interpreted the idols of Mediterranean Neolithic culture, at a time when New York's avant-garde art was shifting from Abstract Impressionism to Informal Painting.

On close examination, this meeting seems to have marked a crucial point

2. For his project for the UN headquarters, see Le Corbusier, *UN Headquarters*, Reinhold, New York, 1947 and G. Dudley, *A Workshop for Peace: Designing the United Nations Headquarters*, The Architectural History Foundation, New York, The MIT Press, Cambridge-Massachusetts, 1994.

3. Le Corbusier, *Le Modulor*, Éditions de l'Architecture d'Aujourd'hui, Boulogne, 1950; *L'Espace Indicible* is the “harmonious” and synesthetic conception of the spatial experience stemming from application of the rules of the *Modulor*; Le Corbusier, *L'espace indicible*, in *L'Architecture d'Aujourd'hui*, 1946.

4. On Nivola's childhood and artistic development see G. Altea, A. Camarda, *Nivola. La sintesi delle arti*, Ilisso, Nuoro, 2016; L. Caramel, C. Pirovano, *Costantino Nivola*, Electa, Milano, 1999; U. Collu, A. Crespi, F. Licht, S. Naitza, *Nivola. Dipinti e grafica*, Jaca Book, Milano, 1995; U. Collu, O. Selvafoffa, *Nivola, Fancello, Pittori. Percorsi del Moderno. Dalle arti applicate all'industrial design*, Jaca Book-Wide, Milano-Cagliari, 2003; F. Licht, A. Satta, R. Ingersoll, *Nivola. Sculture*, Jaca Book, Milano, 1991; C. Nivola, *Ho bussato alle porte di questa città meravigliosa*, Arte Duchamp, Cagliari, 1993; C. Nivola, *Memorie di Orani*, Scheiwiller, Milano, 1997.

in the evolution of their respective intellectual adventures: for Nivola it stimulated the development of architectural and spatial sensibility, while for Le Corbusier it meant emerging awareness of the poetics of the *béton brut*, the possibility of a synthesis of the major arts and the creation of the Total Work of Art (Gesamtkunstwerk).

Le Corbusier in New York

In December 1945, Le Corbusier was appointed Head of the Mission for Urban Planning, Architecture and Cultural Relations and was sent by the French Government to the United States together with Eugène Claudius-Petit¹, the Minister for Reconstruction and Urban Planning, to study the US institutions and promote French culture and technique².

The mission, planned by the CIAM, International Congresses of Modern Architecture – in accordance with the principles of the Athens Charter on the four functions of urban planning: dwelling, work, recreation and transport – had been preceded by a study of the territory carried out by five experts, covering legislative, economic, social and technical parameters and applying categories of planning, architecture and industrialisation³. The programme included the study of roads and bridges, ports and airports, stations and metros, dwellings, schools, museums, factories, offices, theatres, libraries and cinemas. By learning something about the structures and infrastructure of the largest US cities, the French Government intended to acquire useful technologies and strategies for designing European reconstruction and planning pol-

1. Claudius-Petit held major positions such as Minister for Labour, President of the *Union Centrale des Arts Décoratifs*, Member of Parliament for Paris and Mayor of Firminy from 1953 to 1971. B. Pouvreau, D. Voldman, *Un politique en architecture: Eugène Claudius-Petit (1907-1989)*, Le Moniteur, Paris, 2004.

2. E. Mumford, *The CIAM Discourse on Urbanism, 1928-1960*, The MIT Press, Cambridge Mass, 2000, page 159.

3. “La mission comporte un premier groupe de 5 personnes: Messieurs Bodiansky, Ecochard, Emery, Hanning et Sive qui voyageront ensemble à travers le territoire des Etats-Unis, chacun étant chargé particulièrement de régler ses observations d’un certain point de vue, dans le cadre qui lui est assigné (...) jusqu’au moment où Messieurs Le Corbusier et Claudius rejoindront la mission aux Etats-Unis” CIAM, *Mission d’Architectes et d’Urbanistes françaises aux Etats-Unis organisée par la Direction Générale des Relations Culturelles au service du Ministère des Affaires Etrangères*, Paris 30 August 1945 (FLC).

icies. However, the key purpose of the mission was to build cultural exchanges and economic relations between France – traditionally a powerhouse of innovative ideas – and the United States – which had the money and technology to turn them into reality⁴.

The United States had freed Europe from Nazi-Fascism and had had no first-hand experience of the horrors and miseries of the war. The Great Depression of 1929 had been overcome by the New Deal policies and by wartime economy which had allowed the country to prosper⁵. Moreover, the great influx of intellectuals fleeing Europe in the late 1930s had fostered the development of a culture ready to welcome new progressive ideas. The United States were the ideal environment for promoting architectural and urban theories and implement the associated projects.

Le Corbusier landed in New York on 10th January 1946; on 20 January he took part as CIAM representative in a working meeting at the New School for Social Research⁶ and, on the invitation of Joseph Hudnut, Dean of Harvard, he opened an exhibition of his works at the International Building in the Rockefeller Center⁷. This was a very busy time: he held conferences, gave radio interviews and met with influential and leading politicians, businessmen, intellectuals and artists⁸.

The master of modern architecture expressed strong enthusiasm on a number of occasions⁹: “The United States, at the forefront of industrial progress are able to give the necessary momentum to the launch of the construction effort (...) The quality of American engineers and the power of their means make them suitable to promote this initiative” and turned up at this historical appointment with his latest creation: the *Modulor*, “A Harmonious Measure to the Human Scale Universally applicable to Architecture and Mechanics”¹⁰.

The definition of the Modulor as a “set of measurements” obtained through “universal” rules for composition of the new architecture sprang

4. CIAM, *Urbanisme des CIAM, ASCORAL, Programme d'enquête en USA relative au domaine bâti*, 7 January 1945 (FLC).

5. W.E. Leuchtenburg, *Franklin D. Roosevelt and the New Deal:1932-1940*, Harper & Row, New York, 1963.

6. The New School for Social Research was founded in 1919 in Manhattan by a group of intellectuals from Columbia University. In 1933 he founded the “University in Exile” to host students and artists who had fled National-socialism.

7. N. Jornod et J-P. Jornod, *Le Corbusier. Catalogue raisonné de l'œuvre peint. I*, Skira, Milano, 2005, page 171.

8. *Ibid.*

9. N. Jornod and J-P. Jornod (2005), *op. cit.*, page 171; “*You can't imagine the pleasure I feel in seeing that somewhere in the world the principles I defend are being applied, and so brilliantly. Truly, it is highly encouraging*” Le Corbusier, CIAM document (FLC).

10. Le Corbusier (1950), *op. cit.*, page 50.

from a long and complex development process, the fruit of combined studies in architecture, geometry and mathematics, but also of approximation and intuition, which was completed in New York¹¹.

The first definition of the *Modulor* as the “rule of the right angle” inspired by Auguste Choisy’s texts on the history of architecture, had been applied by Le Corbusier in the 1920s to post-Cubist pictorial studies and used to design the façades of the first Purist villas¹². In 1945, the “grid of proportions”, a system of measures scaled to the human body patented by ASCORAL, had been proposed as a means to standardise and industrialise the building industry for reconstruction programmes in France¹³.

The latest definition of the post-war period projected the Modulor in a neo-humanistic and meta-historical dimension imagined through the journey traced by the golden ratio as the protagonist of the greatest cultures and civilisations. From India, passing through Babylon and Ptolemaic Egypt, Pythagorean Greece and the Italian Renaissance, the golden ratio reached Paris in the work of Le Corbusier¹⁴. The Pythagoreans formalised its geometric and mathematical rules, while Plato applied it to his theory of the cosmos; much later, the Humanists and Neo-Platonists recovered and celebrated it as the canon of artistic and architectural beauty.

In the mid-20th century, Le Corbusier claimed that his *Modulor* descended from the mathematical and cultural principles of the *nombre d’or*. Similarly to Leonardo’s universal man during the Renaissance, after World War II the Modulor became the neo-humanist matrix of post-war reconstruction and peace, hence a principle that could be applied universally, from New York to Marseilles, from Berlin to Algiers and Chandigarh¹⁵.

11. *Ibid.*

12. Le Corbusier’s personal library included one volume of the *Histoire de l’architecture*, published by Baranger, Paris, 1903 (FLC) by Auguste Choisy; Le Corbusier used the “regulating lines” for the composition of the facades of the La Roche and Ozenfant houses; Le Corbusier, *Vers une architecture*, Crès, Paris, 1923.

13. ASCORAL: *Assemblée de Constructeurs pour une Rénovation Architecturale*, was founded in 1942 and comprised 11 sections. Section 3 studied “Housing Science” and included three sub-sections: a) housing equipment; b) standardisation and construction; c) industrialisation. It was established in response to AFNOR: *Association française de normalisation*, the French official standard-setting body member of the International Organization for Standardization – ISO – which had been established in 1926 to set standards for all building sectors, under the control of the Ministry of Industry.

14. M. Ghyka, *Esthétique des proportions dans la nature et dans les Arts*, Gallimard, Paris, 1927 (FLC) and M. Ghyka, *Le nombre d’or. Rites et Rythmes Pythagoriciens dans le développement de la civilisation occidentale*, Gallimard, Paris, 1931 (FLC).

15. The definition of architecture in neo-humanist terms is by Alessandro Fonti, *lezioni di Storia dell’Architettura*, Degree Course in Architecture, Faculty of Architecture of Alghero, University of Sassari, 2006.

In the journey to New York, the urgency of defining the Modulor stemmed from essentially practical reasons: to formalise a tool and compositional principle to be applied to the US building programme and, at the same time, to transform the whole traditional construction process, introducing the Fordist logic of large-scale capitalism in the activity of the major US developers¹⁶.

In those years, Henry John Kaiser, the enlightened builder of the Liberty ships during World War II, was planning to convert war production to the industrial construction of single-family houses in mass-production mode¹⁷. Le Corbusier wrote: “After leaving the ship on 10 January 1946 in New York, I had a meeting with Mr Kaiser, the famous builder of the Liberty ships during the war. His new programme was to build 10,000 homes per day in the United States”¹⁸.

The industrial revolution had produced an irreversible transformation of the economic, production and social system. It had replaced manual work with mechanical work and had led the working class to live in *insalubres* neighbourhoods and communities. The Modulor, being a system of measures to the human scale, was considered to be the “golden rule” for the overall planning¹⁹ of new urban neighbourhoods, as it met the need to combine the process of industrialised and standardised production with the “human” dimension.

For this reason he also contacted the major American institutions: he attempted to liaise with policy-makers in Washington and with the administrators of the Tennessee Valley Authority but especially, via the action of his fellow US architects, he championed the creation of an international, independent body for urban planning and development, which would operate through national chapters to handle planning on a global scale under the auspices of the UN²⁰.

As early as December 1938 Sigfried Giedion, Secretary-General of the CIAM, had informed Le Corbusier of the intention of setting up a US chapter of the CIAM in New York and of the possibility of financial support from

16. E. Mumford (2000), *op. cit.*, page 142.

17. The Liberty ships were the cargo ships produced in series for the American fleet and for the military supply programme to the UK. Between 1941 and 1945, the USA constructed 2751 Liberty ships, the largest number of ships ever produced to a single design; L.A. Sawyer, W.H. Mitchell, *The Liberty Ships*, Cornell Maritime Press, 1970; R. Mancini, “Le navi tipo ‘Liberty’”, *Storia Militare*, n. 26, year III, pages 30-41.

18. Le Corbusier (1950), *op. cit.*, page 52.

19. Le Corbusier, *Carnet*, “La règle d’or Corbu de dimensionnement de prefabrications” (FLC).

20. CIAM Document, New York, 13 March (FLC).

the Rockefeller Foundation for organising a congress in the United States²¹. Sert, Giedion and Gropius had organised several meetings with US architects; they had met on 12 May 1939 at New York University for the *Symposium on Contemporary Architecture* and on 13 May at the Architectural League of New York in the *Meeting of American Architects and members of CIAM present in the United States*.

Since the first meetings of 1939 and in the publications of Giedion and Sert²², they had discussed the possibility of setting up local working groups²³ and, most importantly, of playing a guiding role in US planning and architecture, as protagonists and custodians of the experience of European rationalism, the Bauhaus and the principles of the *Athens Charter*.

It was only at the end of World War II, in May 1944, that some members of the US group founded the association named *CIAM American Chapter for Relief and PostWar Planning Inc.*²⁴. The CIAMs were founded in 1928 to encourage the use of advanced techniques in the construction of cities and buildings. Over the next ten years, 18 national chapters were set up, in Europe and America.

Thus, post-World War II, the objective of the *American Chapter* was to coordinate the activities of the national groups and to provide them with the necessary consultancy, by disseminating a *Charter for Reconstruction Principles* and through its know-how in advanced technology sectors, with the support of major US agencies and institutions²⁵.

21. S. Giedion, letter to Le Corbusier, 24 December 1938 (FLC).

22. S. Giedion, *Space, Time and Architecture The Growth of a New Tradition*, Harvard University Press, Cambridge, 1941; J.L. Sert, *Can our cities survive, An ABC of Urban Problems, Their Analyses, Their Solutions: Based on the Proposals Formulated by CIAM*, Harvard University Press, Cambridge, 1942.

23. S. Giedion, letter to Le Corbusier, 16 May 1939 (FLC).

24. "Quelques membres du C.I.A.M., résident aux Etats-Unis ont fondé au mois de Mai 1944 une association temporaire, the 'CIAM, Chapter for Relief and Post War Planning Inc.'" S. Giedion, letter to Le Corbusier, 4 January 1945, on CIAM (FLC) headed paper. The members of this new group were Richard Neutra (president), K. Lonberg Holmes, José Lluís Sert and Paul Nelson (vicepresidents), Stamo Papadaki (secretary general) and a governing board consisting of Pierre Chareau, Serge Chermayeff, Sigfried Giedion, Walter Gropius, Wallace K. Harrison, Joseph Hudnut, A. Lawrence Kocher, László Moholy-Nagy, Mies Van der Rohe, Oscar Stonorov, Ernest Weissmann, Paul Lester Wiener and William Wilson Wurster; CIAM Document, *American Chapter for Relief and Post-War Planning* and S. Giedion, letter to Le Corbusier and report on the activities of the CIAM team in the United States, 4 January 1945 (FLC).

25. The American Concrete Institute, the Steel Construction Institute, the American Society of Civil Engineers, the National Highways Association, the Association for Testing Materials, the Standards Office, the Department of Agriculture and the Tennessee Valley Authority; CIAM Document n.d. (FLC).