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'L'Aventure du Mobilier': Le Corbusier's Furniture Designs of the 1920s

by Charlotte Benton

Looking at present day trends one sees that the decorator has lost all prestige as a designer of furniture. Almost every important inspiration comes from architects.....
(Sigfried Giedion, *Bauwelt*, No. 33, 1933)

Giedion's view is obviously partisan towards *avant-garde* architects. But if we consider one 'important inspiration' – the tubular steel furniture of the mid and late 1920s – we find that most of the 'classic' designs were indeed made by architects whose interest in furniture design arose directly as a result of their architectural preoccupations.¹ Of course, there was nothing new in architects designing furniture as an 'essential' component of their interiors, and there were obvious precedents in the recent past, in the work of Arts and Crafts and Art Nouveau architects. Adolf Loos's essay 'The Story of a Poor Rich Man' (1900) poked fun at the tyranny architects could exercise over their clients in this respect. What was new in the 1920s was not the activity of architects as furniture designers but their radical transformation of interior space which required a parallel transformation of furniture to complement it. 'Furniture... is the first thing to give space a particular quality' noted Willi Lotz, observing of Le Corbusier's houses in the Stuttgart Weissenhof *siedlung*² of 1927 that:

Were one to put heavy, formally pretentious furniture in there, the space would be killed. In Le Corbusier's case all the furniture must be such that it takes nothing away from the space, that the space flows freely with no check to its dynamic.
(Willi Lotz, in *Die Form*, vol. II, 1927, p. 161 ff.)

A similar point of view was expressed by Marcel Breuer:

And so we have furnishings, rooms and buildings allowing as much change and as many adaptations and different combinations as possible. The pieces of furniture and even the very walls of a room have ceased to be massive and monumental ... Instead, they are opened out, or placed freely in space. They hinder neither the movement of the body nor the eye....
(Marcel Breuer, in *Das neue Frankfurt*, 1927, quoted in Hans Wingler, *Bauhaus*, p.450)

By 1927, a dramatic transformation had taken place: not only did individual items of furniture look quite different but, through a process of rationalisation of function, a whole range of types of furniture had been eliminated altogether. For most of the architects concerned this transformation had been gradual: Le Corbusier, for example, began by using conventional craftsman-made furniture but, as his architectural style evolved, came to view furniture as 'equipment' which was both conceived in architectural terms and integrated with the architecture.³

Early work

From his earliest independent practice Le Corbusier had been concerned with furniture design. In *Précisions* (1930) he noted 'I have been obsessed with the anomaly of furniture for twenty years ...' His initial training, at the art school in his native town, La Chaux-de-Fonds, was as a decorative artist, but he later turned to architecture. On leaving the art school he travelled in France and Germany, working for a short time in the offices of Auguste Perret in Paris and Peter Behrens in Berlin. During 1910-11 he made a study of the status of the applied arts in Germany which was later published by the art school.⁴ Some of Le Corbusier's early architectural commissions included the design of furniture and fittings (Plate 1). In general, the style of such furniture as he designed before about 1920 was fairly consistent with the development of his architectural style; it drew on *Biedermeier* and Arts and Crafts conventions. But by the early 1920s when he was established in Paris – where he had settled in 1917– and as his practice as an architect expanded,⁵ the elements of a new architectural language emerged in buildings such as the La Roche-Jeanneret houses in Auteuil of 1923-4.⁶ It was at this point that the 'anomaly' of furniture became critical: traditional ideas about furnishing were quite incongruous in the context of the '*machine à habiter*'; a new language of furnishing had to be found to correspond to the new language of architecture for, in Le Corbusier's view:



Plate 1

On n'abordera avec efficacité la rénovation du plan de la maison moderne, qu' après avoir mis à nu la question du mobilier.
(Le Corbusier, *Précisions*, p. 105)

During the next few years he was to explore this question from various angles – practical, aesthetic and symbolic.

Sources of form and method

Le Corbusier's activities in the 1920s as architect, painter and furniture designer were closely interwoven. His attitudes and practice as a furniture designer were informed by his preoccupations as an architect and painter. A search for certainties, for 'natural laws' of design, provided a common link: he looked to human dimensions⁷ on the one hand and to standardisation and mass-production on the other as sources of certainty.

Anthropomorphic references are common to both his architectural designs and his furniture design. In several of his houses of the 1920s Le Corbusier used curving elements in plan and section which are suggestive of the shape and movements of the human body.⁸ Similarly the design of the *chaise longue* is suggestive of the outline of a body in repose (Plate 2; see also Plate 9). From Le Corbusier's Purist paintings of the early 1920s came the notion of *standard-types* – of objects selected and refined both by their method of production and by popular usage. Purism developed directly out of Cubism and employed similar subject matter in its still lifes – glasses, bottles, pipes and other objects of everyday use. But it regularised the conventions of Cubism, substituting for the fragmentation of the Cubists' simultaneous viewpoints a precisely legible imagery. Purist painting retained the idea of simultaneous viewpoints but expressed them by rendering both the plan and elevation of objects in a manner derived from the conventions of architectural drawing.⁹ This device allowed the precise delineation of objects as discrete elements in a composition and at the same time exaggerated their formal simplicity and dignified them (Plate 3). In much the same way and for the same reasons as Le Corbusier selected ready

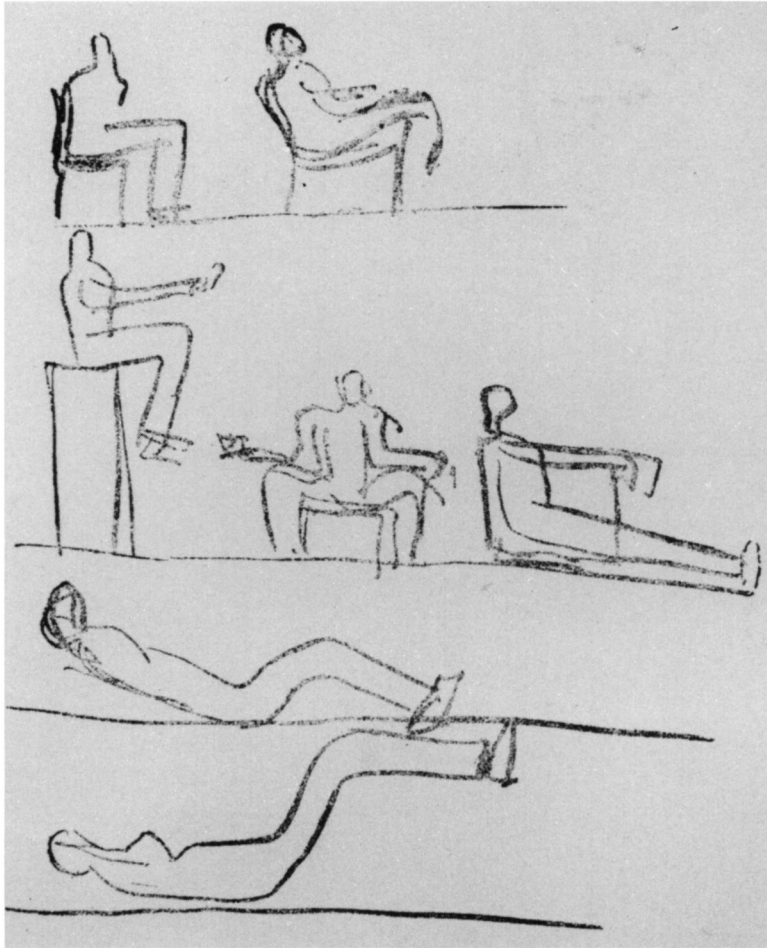


Plate 2

made objects 'authenticated' by popular usage for his Purist paintings, he selected ready made 'popular' furniture (e.g. Thonet bentwood chairs) for his buildings of the early 1920s. Of the Thonet chair he wrote:

Nous avons introduit dans le pavillon de l'Esprit Nouveau comme dans nos hôtels privés ou nos petites maisons ouvrières, l'humble fauteuil Thonet de bois étuvé, certainement le plus banal comme le meilleur marché des fauteuils. Et nous croyons que ce fauteuil, dont les millions d'exemplaires meublent notre continent et les deux Amériques, porte de la noblesse, tant sa pauvreté est un concentré des formes susceptibles de s'harmoniser au corps . . .

(Le Corbusier, *L'Almanach d'architecture moderne*, p. 145)¹⁰

Here there is a suggestion that the very process of mass production of itself results in formal purity. Elsewhere Le Corbusier makes an explicit connection between mass production, simplicity of form and aesthetic quality:

De jour en jour, l'industrie produit des objets de parfaite convenance, parfaitement utile et dont un luxe véritable . . . se dégage de l'élégance de leur conception, de la pureté de leur exécution et de l'efficacité de leurs services. . . .

(Le Corbusier, *L'art décoratif d'aujourd'hui*, p. 81)

Le travail en série exige la recherche de standards . . .

(il) conduit à la perfection et à la pureté . . .

(Le Corbusier, *L'Almanach d'architecture moderne*, p. 82)

This formal purity to be found in certain mass produced objects could be compared directly with that of certain hand crafted *objets de luxe*: in his houses of the 1920s Le Corbusier repeatedly juxtaposed the Thonet bentwood armchair with 'les beaux meubles de cuir de Maple à mille francs' (various versions of the 'club' armchair) as a practical demonstration of this belief.

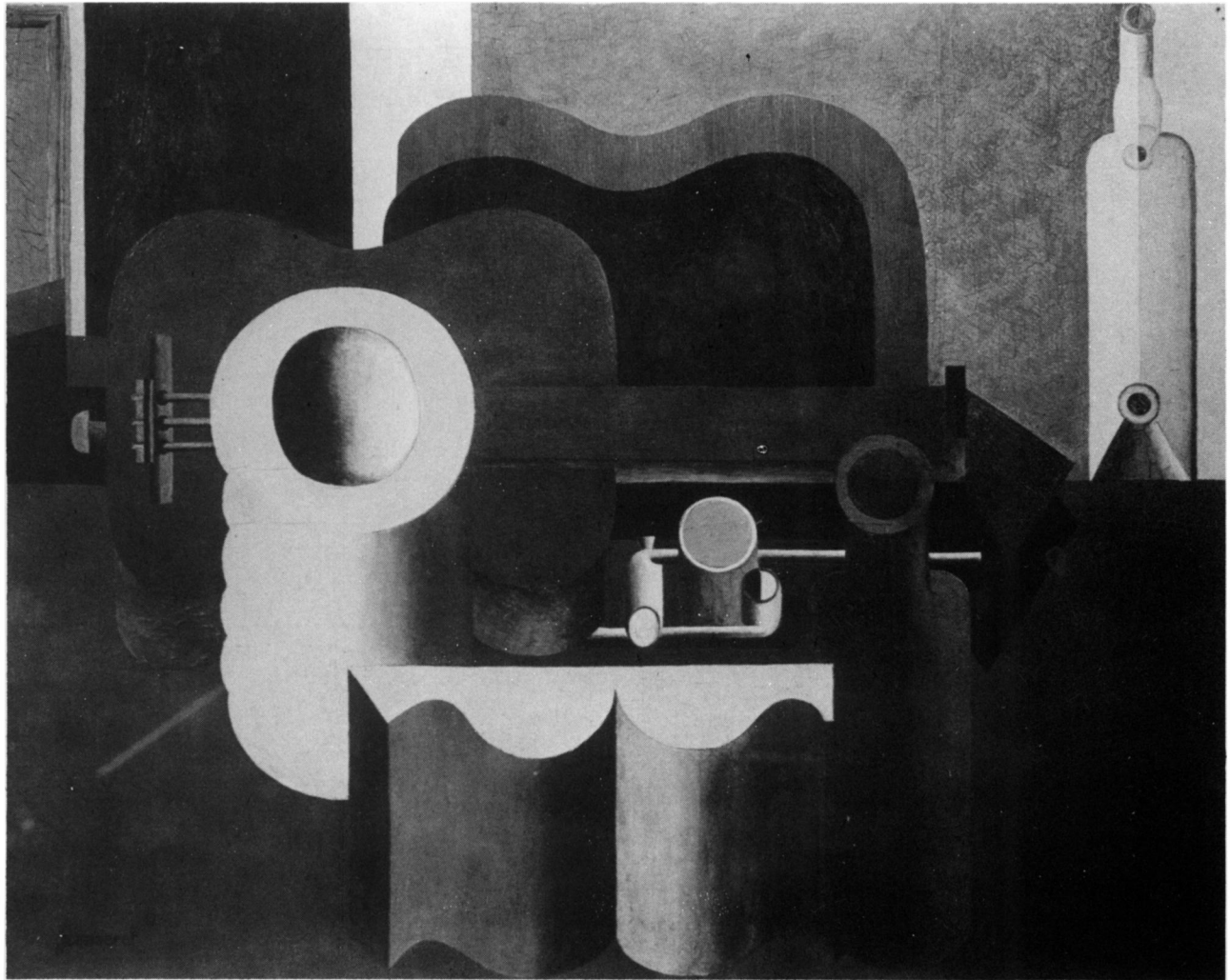
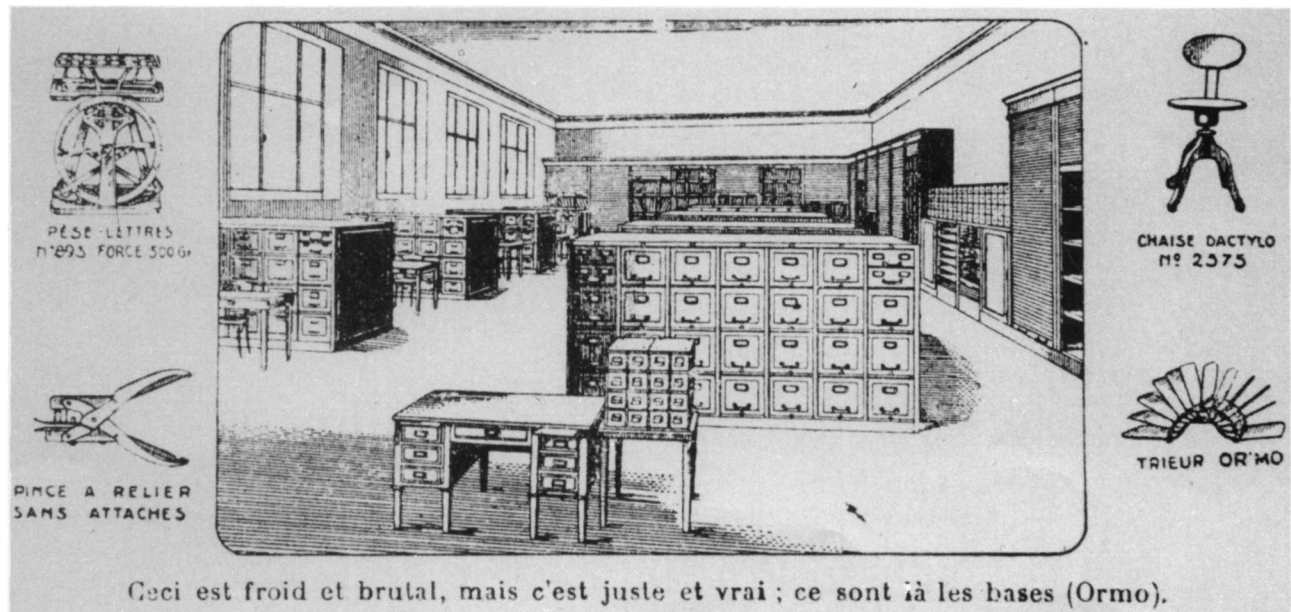


Plate 3

Plate 4



On the question of methods of production and materials, Le Corbusier again found inspiration in modern industry:

L'usine d'avions et de carrosserie emploie le bois suivant des méthodes si nouvelles, que le meuble de bois n'a plus le droit d'être conçu comme auparavant . . .

il n'y a aucune raison pour que le bois demeure la matière première essentielle du mobilier. Sollicitée, l'industrie proposera de suite des compagnons nouveaux: l'acier, l'aluminium, le ciment . . . la fibre . . . et . . . l'inconnu . . . Puis le faubourg Saint-Antoine enverra ses apprentis à Levallois, à Issy-les-Moulineaux, aux usines d'avions et d'autos . . .

(Le Corbusier, *L'art décoratif d'aujourd'hui*, p. 47)

Traditional materials should be used in new ways or altogether new materials and processes employed; Le Corbusier was to be an enthusiastic advocate of tubular steel for furniture.

Le Corbusier's work in other media suggested forms and processes which could be extended to furniture, but he also looked to other sources. Commerce could be tapped for elements of a design typology: office furniture, embodying the idea of 'a place for everything and everything in its place', with its standardised dimensions, provided him with a model for translation to domestic use (Plate 4).¹¹

It should be remembered that Le Corbusier's ideas about furniture took shape in the context of the build-up to and aftermath of the Paris 1925 *Exposition internationale des arts décoratifs et industriels modernes* in which he was involved as an exhibitor; this provided both a stimulus to his ideas and an opportunity to demonstrate them in practice. Le Corbusier noted a contradiction between the stated intentions of the Exhibition's organisers and their practical application and he conducted a polemic in successive issues of *L'Esprit Nouveau*.¹² In contrast to most of his French contemporaries he rejected the classification of furniture as *art décoratif*, substituting a definition of furniture as *équipement* responding to utilitarian needs. Le Corbusier saw such utilitarian needs as constant and universal; they could, therefore, be satisfied by a very narrow range of furniture types:

Le mobilier c'est:

des tables pour travailler et pour manger,
des chaises pour manger et pour travailler,
des fauteuils de diverses formes pour se reposer de diverses manières
et des casiers pour ranger les objets de notre usage

(Le Corbusier, *Précisions*, p. 108)

Je vais affirmer qu'en dehors des sièges et des tables, les meubles ne sont à vrai dire que des casiers.... (*ibid.*, p. 111)

The furniture designed by Le Corbusier¹³ programmatically reflected this minimalist definition: various tables (see Plates 9 and 10) 'for working and eating'; the revolving chair (and revolving stool) (see Plate 8) 'for dining and for working'; the *chaise à dossier basculant*, *chaise longue* and *fauteuil grand confort* (see Plates 8 and 9) 'for resting in various ways'; and the *casiers* (see Plates 5 and 12) for storage.¹⁴

The casiers standards, 1925

The *casiers standards* were the first significant furniture designs by Le Corbusier in the 1920s, and also the most original.¹⁵ The movable *casiers* were first exhibited in the *Pavillon de L'Esprit Nouveau* at the 1925 Exhibition (Plate 5). Together with Thonet bentwood chairs, 'club' armchairs by Maple's and tables with tubular steel frames¹⁶ and tops made from Roneo flush metal doors they were to demonstrate Le Corbusier's chosen programme:

l'aménagement d'une demeure avec des éléments mobiliers standards, non pas faits à l'usage d'une exposition d'art.... Nous voulions aménager notre pavillon avec des produits industriels où la loi d'économie, la sélection commerciale, avaient pu agir et conférer à ces objets ce qu'on peut appeler un style...

(Le Corbusier, *L'Almanach d'architecture moderne*, p. 145)

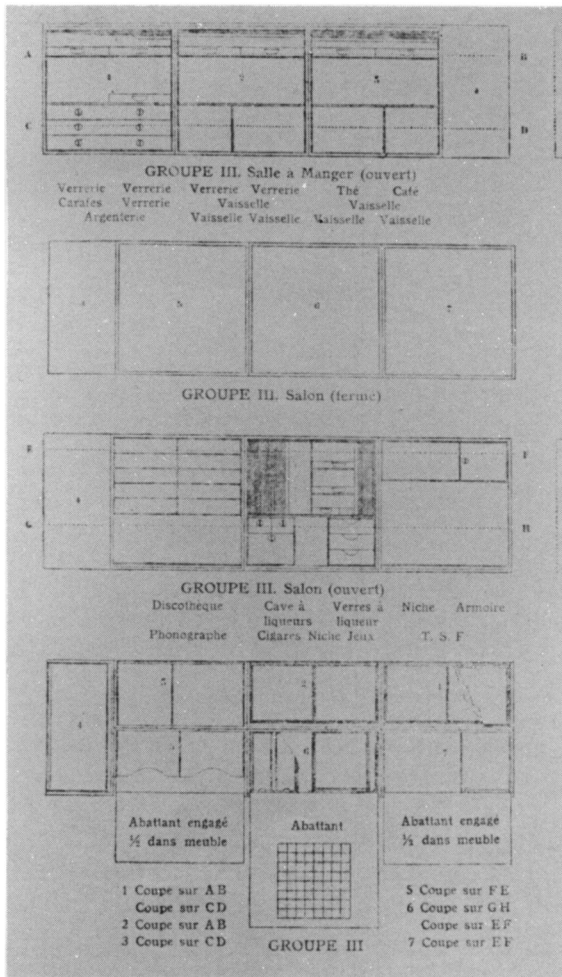


Plate 5

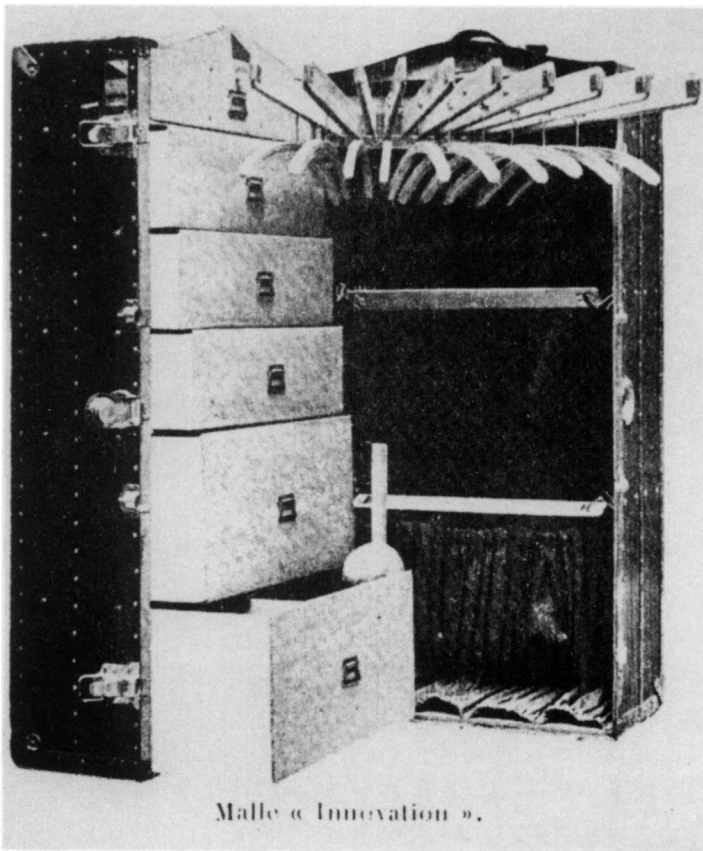


Plate 6

The origins of the *casiers* are to be found in architectural considerations and in the practical demands of building. They functioned as architectural elements in their own right, used to divide and model space, thus forming an integral component in 'the renewal of the plan of the modern house'. They were intended to be mass produced in standardised dimensions (35½, 75, 150) in a wide variety of finishes, to be sold off-the-peg. Economies could be achieved, thus, both in the production of such furniture and in its installation – an important consideration for Le Corbusier as an architect – since its use would significantly reduce the on-site work of the carpenter in new buildings.¹⁷ The design of the *casiers* is based on a rationalisation of the functions of a variety of pieces of furniture (cupboards, chests of drawers, bookcases, etc) into a single unit, and draws its inspiration from the example of office furniture (Plate 4), the *Innovation* trunk (Plate 6) and Francis Jourdain's simple furniture.¹⁸

The chairs, 1927-30

Le Corbusier seems to have begun working on designs for tubular steel framed chairs for his exhibition houses at the Weissenhof *siedlung* in 1927. In July of that year he wrote to Alfred Roth (the site architect supervising the building of the houses):

Pour les meubles nous allons vous envoyer dans 8 jours les dessins des premiers fauteuils. Nous avons fait exécuter ici les modèles en tube de fer. Dès que ces modèles seront au point, vous en recevrez le dessin.

(Quoted in Roth, *Begegnung mit Pionieren*, p. 34)

In the event the chairs mentioned here were not available for the exhibition.¹⁹ But from the Autumn of 1927, when Charlotte Perriand joined the *atelier*, there was a new impetus towards furniture design. Perriand had trained at the *École des arts décoratifs* and having followed courses by Maurice Dufrene and Paul Follot had broken away from the *art déco* character of her first public exhibit²⁰ after being introduced to Le Corbusier's writings by the jeweller Jean Fouquet. Fresh from the *succès de scandale* of her metallic 'Bar sous le toit' (Plate 7), exhibited at the Salon d'Automne in 1927, she was accepted by Le Corbusier as 'a pupil for architecture and collaborator for furniture'. In the two years following her arrival the partnership produced all the 'classic' chair designs – the *fauteuil grand confort*, *chaise à dossier basculant* (Plate 8) and *chaise longue* (Plate 9) – as well as a number of other pieces (Plate 10).²¹

Here it may be useful to set the partnership's designs for tubular steel framed furniture in context. Breuer's earliest design for tubular steel furniture – the experimental prototype of the 'Wassily' chair – was made during the spring of 1925, at about the same time as Le Corbusier was completing his furniture designs for the *Pavillon de l'Esprit Nouveau*. By the end of 1925, examples of a modified version of the 'Wassily' chair were available for sale; Breuer had also made other designs for tubular steel seating and by 1926 tubular steel furniture designed by him was installed in the new Bauhaus buildings and Bauhaus masters' houses at Dessau; numerous avant-garde architects visited the buildings which were also widely published.²² In the following year Breuer was marketing his tubular steel furniture through *Standard-Möbel*. By this time there was considerable interest in the potential of tubular steel amongst designers in Germany, Holland, France and elsewhere. The Weissenhof *siedlung* exhibition stimulated new designs and it was there that the most innovative development first appeared – the cantilever chairs designed by Mart Stam and Mies van der Rohe. In France examples of steel framed furniture emerged in the Paris *salons* in 1927; by 1928 it had become fashionable and there were numerous examples in the *salons* of that year and in the following two years.²³ Tubular steel furniture also began to be available through the art furniture departments of some of the *grands magasins*.²⁴ In 1928 Thonet-Mundus expanded into the tubular steel furniture market and began purchasing designs. Thonet bought out Breuer's firm *Standard-Möbel* and began to market his designs. Thonet's Paris branch was particularly active in the promotion of tubular steel furniture,²⁵ probably largely because of the widespread interest indicated by the *salon* exhibits and the *grands magasins*. The designs by Le Corbusier/Jeanneret/Perriand, then, appeared at a time of growing interest in tubular steel furniture in France.

Most of the partnership's chair designs derived from existing chair types: they were reinterpretations of Le Corbusier approved models (like the Thonet B.9 bentwood chair) which exhibited the characteristics of 'un concentré des formes susceptibles de s'harmoniser au corps'. Giedion noted of the design for the revolving chair (see Plate 8) that:

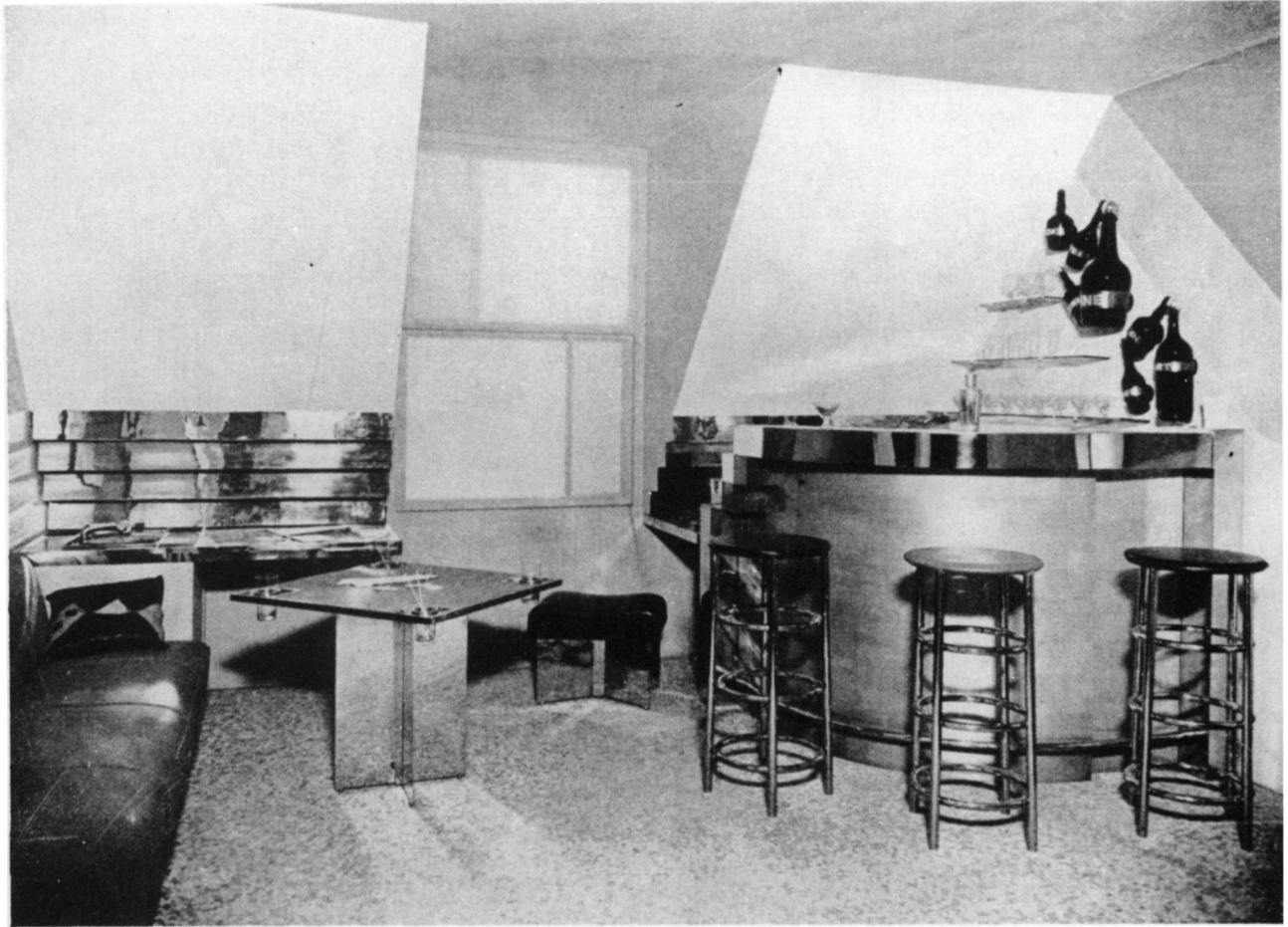
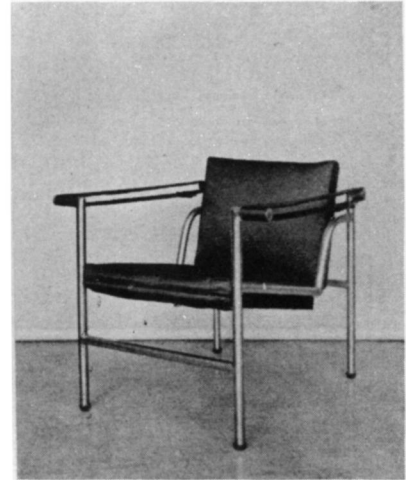
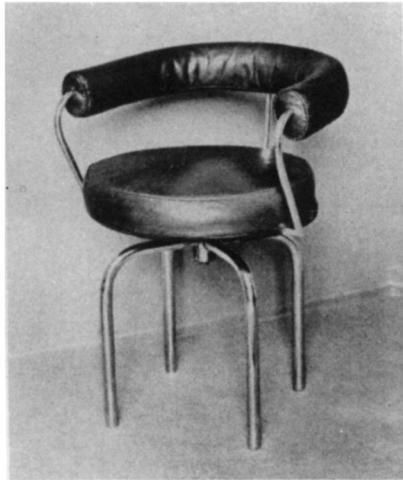


Plate 7

Plate 8



In type, this chair derives from the traditional Thonet model such as Le Corbusier had shown in his pavilion, but it has by now evolved as a creature in its own right.
(S Giedion, *Mechanisation takes command*)

Equivalents can be found for all the key designs. The *fauteuil grand confort* (see Plate 8) is a reinterpretation of a comfortable armchair, such as the Maple's 'club' armchair, with its skeleton exposed.²⁶ The *chaise à dossier basculant* (see Plate 8) is modelled on the 'colonial' chair (Plate 11)²⁷ and has parallels with Breuer's 'Wassily' chair, as well.²⁸ The *chaise longue* (see Plate 9) derives from a variety of sources: a Thonet bentwood reclining rocking chair,²⁹ a Morris chair,³⁰ and a certain Dr Pascaud's patent '*Surrepos*' – a chair which, with the back inclined, was guaranteed to keep 'en bonne place les organes intérieurs'. Of course all the designs are considerably removed from their 'prototypes' both in detail and materials; their sources are subsumed in an avant-garde imagery. Despite this avant-garde imagery, however, the tubular steel chairs designed by Le Corbusier/Jeanneret/Perriand were considerably less radical in both form and the use of materials than, for example, either the definitive version of Breuer's 'Wassily' chair or Mies van der Rohe's cantilever side chair of 1927. The partnership made no attempt to find a minimum material description of a purely formal idea: Mies's side chair, with its graphic outline suggesting (though not in fact) a construction made with a single continuous length of tube, has no parallel in Le Corbusier/Jeanneret/Perriand's work. Nor was the partnership's use of materials technically innovative, despite Charlotte Perriand's assertion that steel had done for furniture what concrete had done for architecture: there was no equivalent of Mies's exploitation of the resilience of steel in his designs for cantilever chairs. Perriand has observed that Le Corbusier was more interested in the symbolic associations of materials and techniques than in 'exploring new technical possibilities or experimenting with the physical properties of material' and that he was concerned with 'certain industrial products (which suggested the world of technique) in a new context'. In practice, materials were used for their associational qualities and for aesthetic effect: Perriand has stated that they liked the idea of a 'confrontation' between 'natural' and 'industrial' materials (e.g. cow hide and chromium or nickel plated steel, as in the *chaise à dossier basculant*).³¹ Furthermore, the steel frames were sometimes painted rather than plated, partly for cheapness and partly to relate individual pieces to a specific architectural context.³²



Plate 11

Thonet and the question of mass-production

Before offering the designs to Thonet, we tried offering them to Peugeot – but Peugeot wasn't interested. I had thought that Peugeot, which mass-produced bicycles, could mass-produce furniture . . .
(Charlotte Perriand to M. di Paolo, quoted in *La machine à s'asseoir*)

In the early stages of the development of designs for tubular steel furniture, some designers assumed that tubular steel could be the means to the production of low-cost, durable furniture for a mass market. The fact that Thonet-Mundus – then the largest manufacturer of low-cost furniture, with a world-wide distribution network – began to promote tubular steel furniture from 1928, seemed to indicate that this assumption could become a practical reality: but this was almost certainly never the case.³³

In return for financing Le Corbusier/Jeanerret/Perriand's exhibit at the 1929 *Salon d'Automne* (Plate 12), Thonet obtained the rights of exploitation on several designs, duly adding them to the firm's stock of metal furniture designs. A catalogue issued by Thonet's Paris branch indicates the models available (Plate 13). It seems certain, however, that these designs were made only in limited quantities. Perriand has stated that:

Il (Thonet) n'en a pas fait le nombre que nous desirions, il n'a pas serré le prix; il s'est conduit comme un marchand de meubles . . .
(Quoted by Arthur Ruegg – see Bibliography)

It is worth noting that the designs were not particularly well adapted to a mass-production process nor for ease of assembly, compared with either Breuer's 'Wassily' chair or Mies's side chair. The *fauteuil grand confort* (Plate 14) and the *chaise à dossier basculant* (Plate 15) consisted of several members of different lengths which required some complicated right angle welding as well as more straightforward welds. Mies's 1927 side chair, by contrast, was made of only three strips of tubing (five in the version with arms), which could be butt-jointed with dowels, welded and screwed together. The *chaise longue*, in addition to the chromium plated tubular steel frame of the adjustable superstructure, required a rigid wooden painted base.

After 1930

As Perriand noted, the Thonet models were not cheap.³⁵ If this was partly due to the fact that the partnership's specifications for their designs were largely incompatible with mass production and economies of scale, it was also clear by 1930 that tubular steel furniture could not compete in price with conventional wooden furniture – a factor which was underlined by the economic Depression. Paradoxically, 1930 saw the most thoroughgoing example of tubular steel furniture in the *Deutsche Werkbund* exhibit at the *Salon des Artistes Decorateurs*. After 1930 the partnership made some modifications to existing designs but no significant new designs (although Perriand made some designs for both tubular steel and wooden furniture on her own account). There are various reasons why this should be so: for one thing, the *fauteuil grand confort*, *chaise à dossier basculant* revolving chair and stool and the *casiers* provided between them a more or less definitive solution to the problem of furniture compatible with the Corbusian architectural aesthetic. For another, economic conditions limited opportunities to experiment. Most important, perhaps, was a shift in direction and emphasis in Le Corbusier's other work. There was a marked change in his domestic architecture – a new interest in 'natural' materials and local 'vernacular' form which was, in some respects, the antithesis of his enthusiasms of the 1920s;³⁷ and, at the same time, he was absorbed – in common with other members of the *Congrès Internationaux d'Architecture Moderne* – with theories of large scale urban planning.

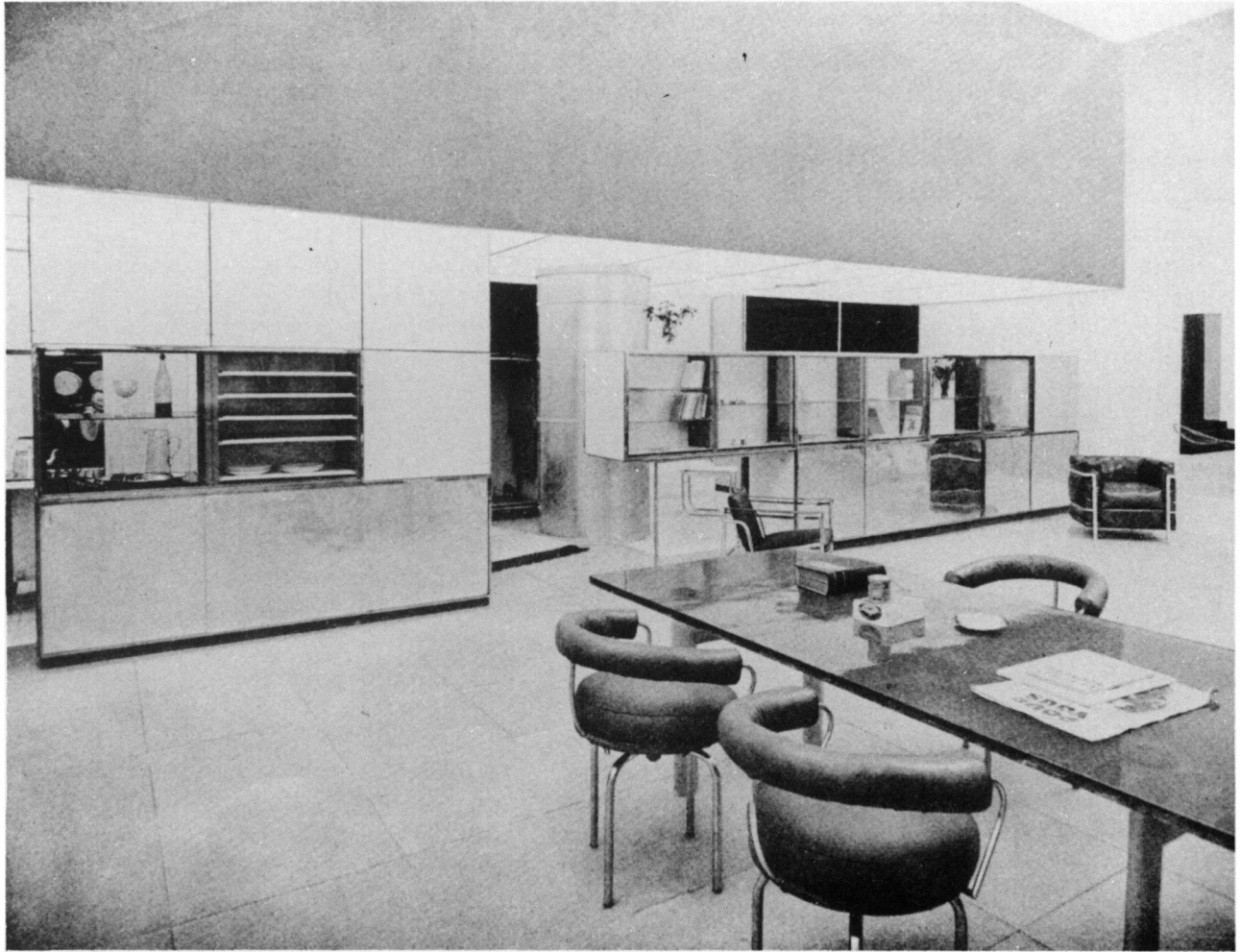
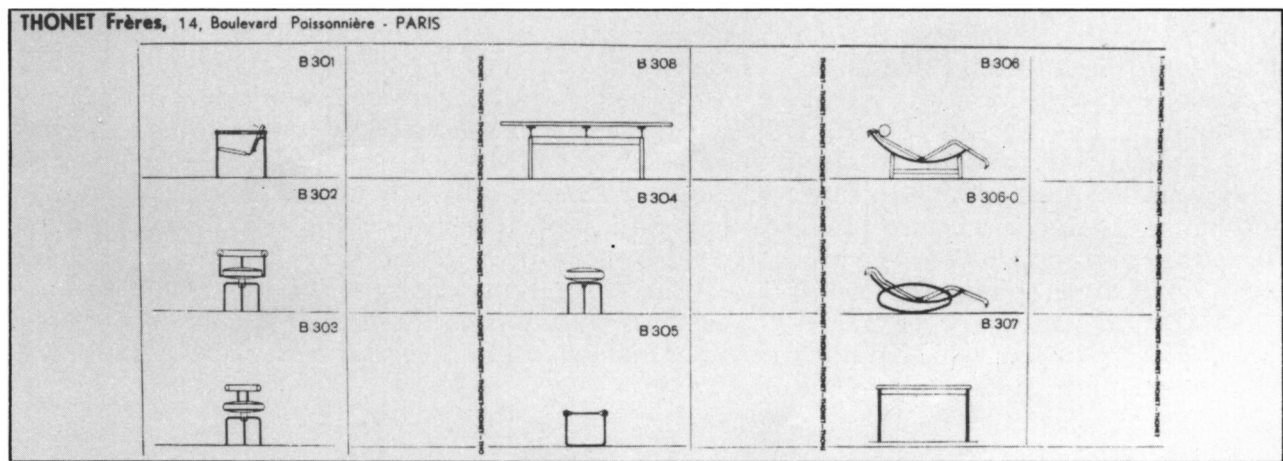


Plate 12

Plate 13



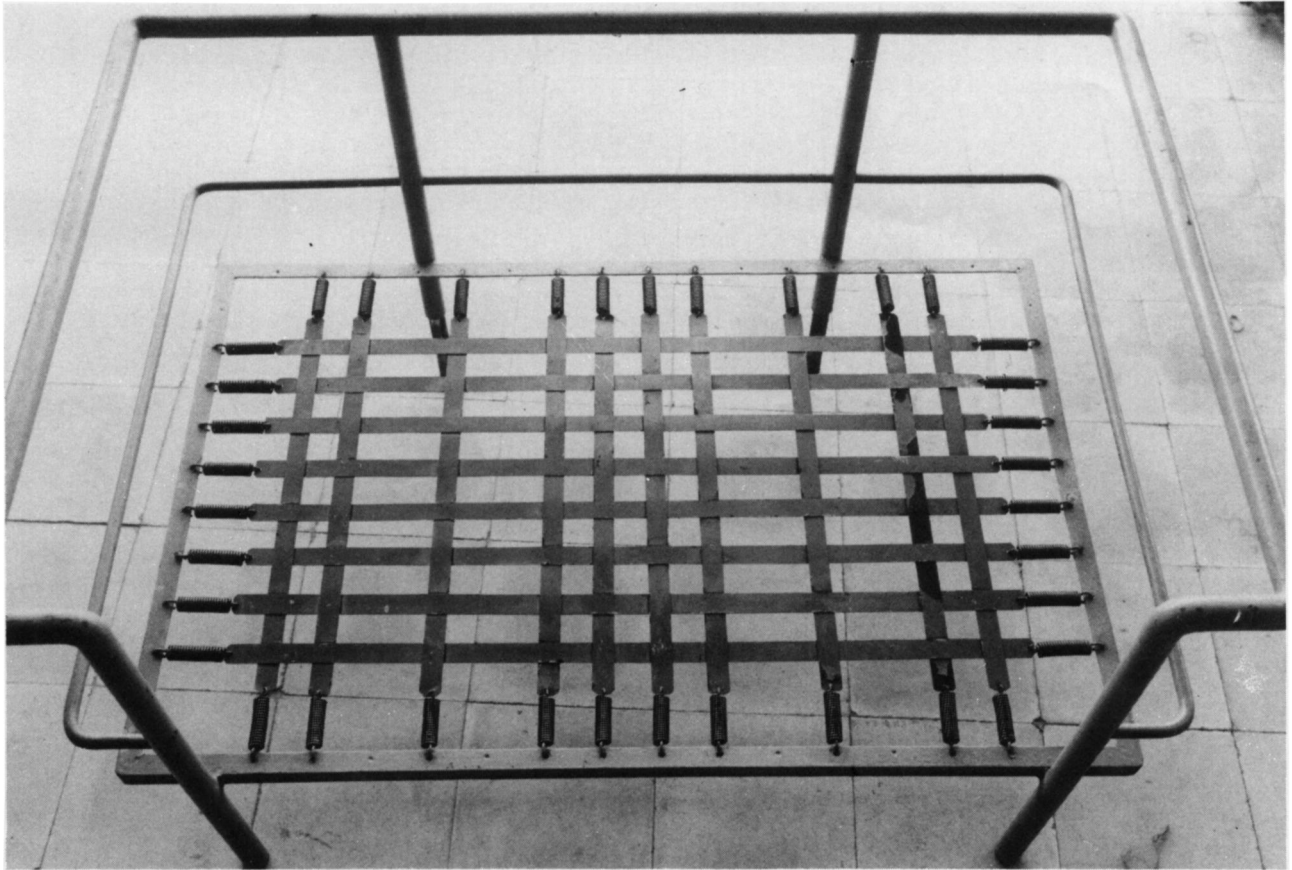
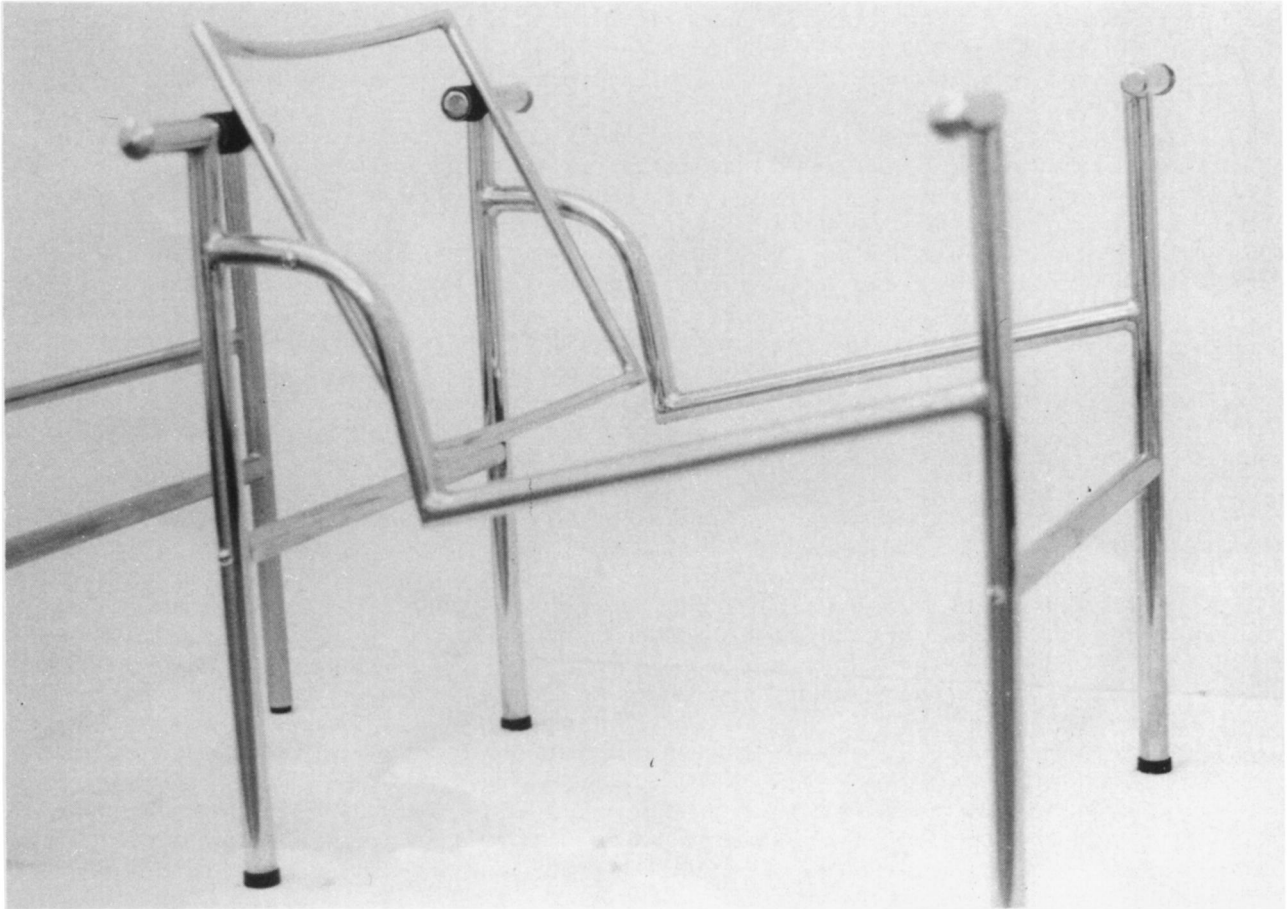


Plate 14

Plate 15



Notes

- ¹ Notably Mies van der Rohe, Le Corbusier, and Mart Stam. An exception must be made, of course, for Marcel Breuer – usually credited as the ‘inventor’ of tubular steel furniture – who, although closely associated with architects, was then working as a furniture designer.
- ² The model housing estate sponsored by the *Deutsche Werkbund*. Le Corbusier’s so-called ‘double house’ gave a dramatic demonstration of the spatial dynamic identified by Lotz in its open plan first floor living area. It is perhaps worth noting here that some of Le Corbusier’s clients of the 1920s possessed furniture which looked very out of keeping in its new context. Michael Stein, for whom Le Corbusier designed the villa at Garches, owned a considerable collection of antique Italian furniture.
- ³ ‘Il/le casier/fait architecture.’ (*L’Almanach d’architecture moderne*, p. 145). Le Corbusier often built in storage fittings made of concrete in the wall spaces under long ribbon windows; their tops formed interior cills. He also built dividing walls in such a way that they formed storage fittings on either side – the fittings were, thus, literally integrated into the architecture.
- ⁴ *Étude sur le mouvement d’art décoratif en Allemagne (Rapport présenté à la Commission de l’École d’art de La Chaux-de-Fonds)*, La Chaux-de-Fonds, 1912.
- ⁵ From 1922 onwards, Le Corbusier worked in partnership with his cousin Pierre Jeanneret.
- ⁶ Now the *Foundation Le Corbusier*. One part was built for the Swiss banker and art collector Raoul La Roche; the other for Le Corbusier’s brother, the painter Albert Jeanneret. The studio of the La Roche house was originally furnished with Thonet bentwood chairs, a Maple’s ‘club’ armchair and other upholstered chairs. It was refurbished with Le Corbusier/Jeanneret/Perriand’s new tubular steel furniture in 1928-9.
- ⁷ e.g. ‘Nous avons tous mêmes membres, en nombre, formes et dimensions; s’il existe sur ce dernier point des différences, une mesure moyenne est facile à trouver.’ (*Précisions*, p. 109) And: ‘Ces objets /de notre usage/ sont tous proportionnés a nos membres, adaptés a nos gestes. Ils ont une *échelle commune*, ils obéissent à un module. Si j’étudie la question. . . je trouve une mesure commune. Je trouve le casier qui contient efficacement tous ces objets.’ (*Ibid.*, p. 113)
- ⁸ These elements are to be found particularly in the main bedrooms and their dependent bathrooms – e.g. at the Villa Savoye.
- ⁹ *La Peinture Moderne* (1925) written (under his original name, Charles-Édouard Jeanneret) with the painter Amédée Ozenfant, speaks of ‘extracting their most specific forms’.
- ¹⁰ It should be noted that Le Corbusier’s statements on ‘the Thonet chair’ are highly rhetorical. Of the many mass selling chairs he selected very specific examples – notably the No. 18 armchair and the B.9 armchair although, on occasion, he also used other models. These chairs frequently appeared in his perspective drawings of interiors, endowed with a kind of anthropomorphic quality. As Arthur Ruegg has pointed out (see Bibliography), Le Corbusier did not leave these Thonet chairs ‘*au naturel*’ but usually painted them according to a theory of colour.
- ¹¹ In *L’Almanach de l’architecture moderne* (1925) he noted: ‘Transporter le mobilier du bureau dans l’appartement, ceci sur un plan d’esthétique différent.’ (p. 110).
- ¹² *L’Esprit Nouveau* (subtitled *Revue internationale de l’activité contemporaine*) was a magazine founded early in 1920 by Le Corbusier, Ozenfant and the Belgian poet Paul Dermée. It ran to 28 numbers, ceasing publication in 1925.
- ¹³ i.e. Le Corbusier/Jeanneret from 1922-7; Le Corbusier/Jeanneret/Perriand from 1927-37 (see below).
- ¹⁴ His classification of chairs was elaborated as follows:
On s’assoit ‘actif’ pour travailler. La chaise est un instrument de supplice qui vous tient admirablement éveillé. . . Je m’assois pour causer: tel fauteuil me donne une tenue décente et polie. Je m’asseoir ‘actif’ pour pérorer, démontrer une thèse, proposer ma manière de voir: comme ce tabouret haut convient a mon attitude! Mais voici la machine à repos. Nous l’avons construite avec des tubes de bicyclette et nous l’avons recouverte d’une magnifique fourrure de poulain; elle est légère au point d’être poussée avec le pied, manoeuvrée par un enfant; j’ai songé au cowboy du Far-West fumant sa pipe, les pieds en l’air, plus hauts que la tête, appuyés sur le bord de la cheminée: repos total. Notre chaise longue prend toutes les positions; mon poids seul suffit à la maintenir dans la position choisie; nulle mécanique. C’est la vraie machine à repos. . . . (*Précisions*, pp. 118 & 120)
- ¹⁵ The literal translation of *casiers standards* is ‘standardised pigeon holes’; the sense is probably better conveyed by ‘modular storage system’. No real equivalent is to be found, at this date, in the work of other *avant-garde* designers. Breuer’s designs for modular unit furniture in 1926 retained their identity as individual pieces and were intended for use against or on the wall rather than free-standing. See also note 5 – built in *casiers* were already to be found in Le Corbusier’s buildings (e.g. the La Roche-Jeanneret houses).
- ¹⁶ Le Corbusier’s innovative use of tubular steel supports for several pieces of furniture in the *Pavillon de L’Esprit Nouveau* seems to have gone unremarked in the specialist press reviews; this may be accounted for by the fact that the pavilion was completed only well after the official opening of the Exhibition and was thus too late to be included in some publications. Tubular steel (and other metal framed) furniture began to appear on any scale in France only from 1927.
- ¹⁷ Le Corbusier was well aware that his views on furniture production had implications for the furniture industry, but his contempt for the products of the *faubourg Saint-Antoine* (the traditional centre of the furniture industry in Paris) and his view that it was essential to adapt to the ‘new conditions of modern life’, allowed him to dismiss such considerations.

- ¹⁸ e.g. the kind used in Jourdain's own apartment in the rue Vavin.
- ¹⁹ It is quite likely that the chairs were not as advanced in production – or even design – as Le Corbusier's letter suggested; he frequently told both clients and colleagues what they wanted to hear.
- ²⁰ 'Coin de salon' exhibited at the Salon des Artistes Decorateurs in 1926 (illustrated in *Les Echos des Industries d'Art*, juin 1926); in the following year's *salon* Perriand showed a hanging in Maurice Dufrene's exhibit.
- ²¹ Perriand's diagrammatic chart (Plate 10) attributes almost all of the designs to the group collectively.
- ²² See Christopher Wilk, *Marcel Breuer: Furniture and Interiors*, Museum of Modern Art, New York, 1981, for details of Breuer's activities during this period.
- ²³ No tubular steel furniture was shown in the *Salon des Artistes Decorateurs* in 1927; at the *Salon d'Automne*, however, of that year, Pierre Chareau exhibited metal framed furniture designed for the Grand Hotel at Tours and Charlotte Perriand exhibited the chromium plated 'Bar sous le toit'. The *Salon des Artistes Decorateurs* of 1928 contained several examples of metal furniture (by no means all chromium or nickel plated tubular steel) by Barbe, Groult, Herbst, Matet and others; Le Corbusier/Jeanneret/Perriand exhibited a 'Salle à manger 1928' which included the revolving chair and stool, and an extendable table with a chromium plated support. The *Salon d'Automne* of 1928 again included examples of tubular steel furniture – notably that by René Herbst; similarly the *Salon d'Automne* of 1929 included several examples of which Le Corbusier/Jeanneret/Perriand's exhibit was the most uncompromising example of the possibilities of the material.
- ²⁴ A 1928 catalogue of the *Magasins du Louvre* shows an unattributed design for a 'Fauteuil moderne en tube acier laque. . . couvert de belle étoffe moderne' at 495 francs; by comparison a 'Chaise longue Morriss' [*sic*] (based on Webb's design for Morris & Co.) 'couverte velours moderne', was priced at 335 francs. A catalogue for 1930 shows a nickel plated tubular steel chair with an integral spring system (described as 'création Studium Louvre, modèle breveté') priced at 729 francs, compared with the 'Morriss' chair at 379 francs.
- ²⁵ Christopher Wilk, *Thonet: 150 Years of Furniture*, New York, 1980
- ²⁶ See Breuer's 'Wassily' chair for an alternative tubular steel interpretation of a 'club' armchair.
- ²⁷ A folding chair made of wood, with stretched panels of canvas (or leather) forming the back and seat and straps for the arms. In the context of both Le Corbusier's *chaise à dossier basculant* the use of straps as arm supports and the moveable back are obviously significant. The relevance of this model to Breuer's 'Wassily' chair should be considered.
- ²⁸ Especially in the design of the back support, although in the case of Le Corbusier's chair the back is adjustable, whereas in Breuer's 'Wassily' chair it is not. There are obvious parallels in the use of straps, but see above.
- ²⁹ e.g. No. 7500
- ³⁰ The so-called 'Morris' chair.
- ³¹ Charlotte Perriand quoted in *di Pvolo* (see Bibliography).
- ³² Just as Le Corbusier had earlier painted the Thonet bentwood chairs. Examples of the *fauteuil grand confort* exist with the frames painted yellow, emerald green, and black. It seems likely that the chromed frames appeared only after Thonet acquired the designs. It should be noted, as well, that the early versions of the *fauteuil grand confort* were considerably wider than the current Cassina model and had more 'comfortable' cushions; the narrower version with its foam filled cushions is more rigid.
- ³³ Wilk states that by 1930 Thonet 'had just begun large-scale production of tubular steel furniture by Breuer and several French designers' (*Breuer, op. cit.*, p. 98). Unfortunately he gives no production figures either in this or in his book on Thonet. Wilk also notes that: 'The Le Corbusier-Jeanneret-Perriand models were not commercially successful. After 1933 they were rarely seen in catalogues or advertisements. Only the B.301 armchair and the company designed B.306 rocking *chaise longue* were still seen in a 1936 catalogue. Their popularity seems to have been confined largely to France. . . .' (*Thonet, op. cit.*, p. 105).
- ³⁴ See Drexler, A. *Ludwig Mies van der Rohe: Furniture and Furniture drawings*. . . , Museum of Modern Art, New York, 1977, pp. 20-3, for details.
- ³⁵ A catalogue of a travelling exhibition of practical design from France, shown in Basel and Zurich in 1930 and 1931 lists the Thonet B.301 armchair (*chaise à dossier basculant*) with canvas covers at 850 francs; the B.302 revolving armchair upholstered in 'Old Havana' cowhide at 1520 francs; the B.306 *chaise longue*, with grey canvas covers reinforced at head and foot with leather at 2500 francs. From the same catalogue an office chair in mahogany by Pierre Chareau was available at 375 francs (less than the price of a tubular steel bathroom stool by Le Corbusier/Jeanneret/Perriand at 480 francs); Lurçat's B.331 chromed metal armchair upholstered in grey woollen velvet cost 1400 francs.
- ³⁶ See under note 25 – the comparative prices of a tubular steel chair and a 'Morris' chair from the *Magasins du Louvre* in 1930.
- ³⁷ A parallel tendency can be found in some of Perriand's furniture designs during this period, in a return to 'natural' materials and 'organic' form.

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List of plates

¹ C-E. Jeanneret (Le Corbusier), Chair, c. 1916.

² Le Corbusier, Page of sketches from *Précisions*, showing figure postures corresponding with his designs for 'chairs for relaxing in various ways'. (From top: 'chaise à dossier basculant'; 'fauteuil grand confort'; 'chaise longue')

³ Jeanneret (Le Corbusier), *Nature morte à la pile d'assiettes*, 1920.

⁴ Illustration of office furniture from *L'Art décoratif d'aujourd'hui* (note Le Corbusier's caption)

⁵ Le Corbusier, *Casiers* designed for use in the Pavillon de l'Esprit Nouveau at the 1925 Exhibition.

⁶ *Innovation* trunk, as illustrated in *L'Art décoratif d'aujourd'hui*.

⁷ Charlotte Perriand, 'Le Bar sous le toit' (from her own apartment), exhibited at the *Salon des Artistes-décorateurs*, 1927.

⁸ Le Corbusier/Jeanneret/Perriand, Tubular steel chairs, 1928-9. (Left to right: 'fauteuil grand confort'; revolving chair; 'chaise à dossier basculant').

⁹ View of the refurbished studio of the La Roche house, c. 1929, showing the 'chaise longue', 'chaise à dossier basculant', 'fauteuil grand confort', table and fitments.

¹⁰ Charlotte Perriand, Diagrammatic catalogue of the partnership's furniture designs, indicating joint authorship for all designs except the 'siège coordinable' (c. 1932) and 'table extensible' (1928).

¹¹ Anon., 'Colonial' chair.

¹² Le Corbusier/Jeanneret/Perriand, 'Équipement d'une habitation', *Salon d'Automne*, 1929 (the exhibit was sponsored by Thonet).

¹³ Thonet (Paris) catalogue (c. 1933?) showing models by Le Corbusier/Jeanneret/Perriand. The rocking version of the chaise longue B 306-0 was apparently a Thonet modification (see Christopher Wilk, *Thonet. . .*, New York, 1981).

¹⁴ Le Corbusier, 'Fauteuil grand confort' frame (original version).

¹⁵ Le Corbusier, 'Chaise à dossier basculant' frame.