Le Corbusier, born Charles-Edouard Jeanneret in the Swiss town of Le Chaux-de-Fonds, forced a reconsideration of functional and aesthetic expectations in architecture; he is thus recognized as one of the most brilliant and influential architects of the twentieth century. Particularly intrigued by the possibilities of standardization and industrial production, in 1915 Le Corbusier devised the Maison Domino, an inexpensive, mass-producible housing frame composed of reinforced-concrete slab floors and vertical point supports. Two years later, he moved to Paris where he adopted the name Le Corbusier and began writing articles he would later publish together as Vers une Architecture (1923, translated as Towards a New Architecture). In this text, Le Corbusier urged architects to reconsider the accepted notion of the house and with it, the possibilities of twentieth-century life. Much as engineers devised the airplane to allow man to fly, Le Corbusier felt that architects must recreate the house for man to live in modern terms, with updated social ideals of space, hygiene, and technology; like the machine, the house should efficiently function in the service of its occupants. To support his argument Le Corbusier highlighted mechanized objects such as the airplane as models for contemporary architectural thought.

During the early 1920s, Le Corbusier collaborated with his cousin, Pierre Jeanneret (1896–1967). Together they expanded Le Corbusier's ideas concerning mass production and mechanization to formulate "Five Points towards a New Architecture" (1926). In place of conventional construction methods that relied on a buried foundation, load-bearing walls, and a pitched roof, Le Corbusier and Jeanneret proposed a new building system that incorporated structural pilotis (stilts of reinforced concrete), an open interior plan, an enclosing but non-load-bearing façade, strip or ribbon windows, and a flat rooftop garden. This set of revolutionary principles challenged traditional notions of structure and aesthetics, and established a new approach to architectural design.
Towards a New Architecture (1923)

Eyes Which Do Not See
II. Airplanes

There is a new spirit: it is a spirit of construction and of synthesis guided by a clear conception.
Whatever may be thought of it, it animates to-day the greater part of human activity.
A GREAT EPOCH HAS BEGUN

Programme of l’Esprit Nouveau
No. 1, October, 1920.

There is one profession and one only, namely architecture, in which progress is not considered necessary, where laziness is enthroned, and in which the reference is always to yesterday.

Everywhere else, taking thought for the morrow is almost a fever and brings its inevitable solution: if a man does not move forward he becomes bankrupt.

But in architecture no one ever becomes bankrupt. A privileged profession, alas!

* * *

The airplane is indubitably one of the products of the most intense selection in the range of modern industry.

The War was an insatiable "client," never satisfied, always demanding better. The orders were to succeed at all costs and death followed a mistake remorselessly. We may then affirm that the airplane mobilized invention, intelligence and daring: imagination and cold reason. It is the same spirit that built the Parthenon.

Let us look at things from the point of view of architecture, but in the state of mind of the inventor of airplanes.

The lesson of the airplane is not primarily in the forms it has created, and above all we must learn to see in an airplane not a bird or a dragon-fly, but a machine for flying; the lesson of the airplane lies in the logic which governed the enunciation of the problem and which led to its successful realization. When a problem is properly stated, in our epoch, it inevitably finds its solution.

The problem of the house has not yet been stated.

One commonplace among Architects (the younger ones): the construction must be shown.

Another commonplace amongst them: when a thing responds to a need, it is beautiful.

But . . . To show the construction is all very well for an Arts and Crafts student who is anxious to prove his ability. The Almighty has clearly shown our wrists and our ankles, but there remains all the rest!

When a thing responds to a need, it is not beautiful; it satisfies all one part of our mind, the primary part, without which there is no possibility of richer satisfactions; let us recover the right order of events.
Architecture has another meaning and other ends to pursue than showing construction and responding to needs (and by “needs” I mean utility, comfort and practical arrangement).

ARCHITECTURE is the art above all others which achieves a state of platonic grandeur, mathematical order, speculation, the perception of the harmony which lies in emotional relationships. This is the Aim of architecture.

But let us return to our chronology.

If we feel the need of a new architecture, a clear and settled organism, it is because, as things are, the sensation of mathematical order cannot touch us since things no longer respond to a need, and because there is no longer real construction in architecture. An extreme confusion reigns. Architecture as practiced provides no solution to the present-day problem of the dwelling-house and has no comprehension of the structure of things. It does not fulfill the very first conditions and so it is not possible that the higher factors of harmony and beauty should enter in.

The architecture of to-day does not fulfill the necessary and sufficient conditions of the problem.

The reason is that the problem has not been stated as regards architecture. There has been no salutary war as in the case of the airplane.

But you will say, the Peace has set the problem in the reconstruction of the North of France. But then, we are totally disarmed, we do not know how to build in a modern way—materials, systems of construction, THE CONCEPTION OF THE DWELLING, all are lacking. Engineers have been busy with barrages, with bridges, with Atlantic liners, with mines, with railways. Architects have been asleep.
The airplane shows us that a problem well stated finds its solution. To wish to fly like a bird is to state the problem badly, and Ader's "Bat" never left the ground. To invent a flying machine having in mind nothing alien to pure mechanics, that is to say, to search for a means of suspension in the air and a means of propulsion, was to put the problem properly: in less than ten years the whole world could fly.

LET US STATE THE PROBLEM

Let us shut our eyes to what exists.

A house: a shelter against heat, cold, rain, thieves and the inquisitive. A receptacle for light and sun. A certain number of cells appropriated to cooking, work and personal life.

A room: a surface over which one can walk at ease, a bed on which to stretch yourself, a chair in which to rest or work, a work-table, receptacles in which each thing can be put at once in its right place.

The number of rooms: one for cooking and one for eating. One for work, one to wash yourself in and one for sleep.

Such are the standards of the dwelling.

Then why do we have the enormous and useless roofs on pretty suburban villas? Why the scanty windows with their little panes; why large houses with so many rooms locked up? Why the mirrored wardrobes, the washstands, the commodes? And then, why the elaborate bookcases? The consoles, the china cabinets, the dressers, the sideboards? Why the enormous glass chandeliers? The mantelpieces? Why the draped curtains? Why the damasked wall-papers thick with colour, with their motley design?

Daylight hardly enters your homes. Your windows are difficult to open. There are no
ventilators for changing the air such as we get in any dining-car. Your chandeliers hurt
the eyes. Your imitation stone stucco and your wall-papers are an impertinence, and
no good modern picture could ever be hung on your walls, for it would be lost in the
welter of your furnishings.

Why do you not demand from your landlord:

1. Fittings to take underclothing, suits and dresses in our bedroom, all of one depth,
of a comfortable height and as practical as an “Innovation” trunk;

2. In your dining-room fittings to take china, silver and glass, shutting tightly and
with a sufficiency of drawers in orders that “clearing away” can be done in an instant,
and all these fittings “built in” so that round your chairs and table you have room
enough to move and that feeling of space which will give you the calm necessary to
good digestion;

3. In your living-room fittings to hold your books and protect them from dust and to hold
your collection of paintings and works of art. And in such a way that the walls of your
room are unencumbered. You could then bring out your pictures one at a time when
you want them.

As for your dressers, and your mirrored wardrobes, you can sell all these to one of those
young nations which have lately appeared on the map. There Progress rages, and they
are dropping the traditional home (with its fittings, etc.) to live in an up-to-date house
à l'éuropéenne with its imitation stone stucco and its mantelpieces.

Let us repeat some fundamental axioms:

(a) *Chairs are made to sit in.* There are rush-seated church chairs at 5s., luxuriously up-
holstered arm-chairs at £20 and adjustable chairs with a movable reading-desk, a shelf for your coffee cup, an extending foot rest, a back that raises and lowers with a handle, and gives you the very best position either for work or a nap, in a healthy, comfortable and right way. Your bergères, your Louis XVI canseuses, bulging through their tapestry covers, are these machines for sitting in? Between ourselves, you are more comfortable at your club, your bank or in your office.

(b) Electricity gives light. We can have concealed lighting, or we can have diffused and projected lighting. One can see as clearly as in broad daylight without ever hurting one’s eyes.

A hundred-candle-power lamp weighs less than two ounces, but there are chandeliers weighing nearly two hundredweight with elaborations in bronze or wood, and so huge that they fill up all the middle of the room; the upkeep of these horrors is a terrible task because of the flies. These chandeliers are also very bad for the eyes at night.

(c) Windows serve to admit light, “a little, much or not at all,” and to see outside. There are windows in sleeping-cars which close hermetically or can be opened at will; there are the great windows of modern cafés which close hermetically or can be entirely opened by means of a handle which causes them to disappear below ground; there are the windows in dining cars which have little louvres opening to admit air “a little, much, or not at all,” there is modern plate glass which has replaced bottle-glass and small panes; there are roll shutters which can be lowered gradually and will keep out the light at will according to the spacing of their slats. But architects still use only windows like those at Versailles or Compiègne, Louis X, Y or Z which shut badly, have tiny panes, are difficult to open and have their shutters outside; if it rains in the evening one gets wet through in trying to close them.

(d) Pictures are made to be looked at and meditated on. In order to see a picture to advantage, it must be hung suitably and in the proper atmosphere. The true collector of
pictures arranges them in a cabinet and hangs on the wall the particular painting he wants to look at; but your walls are a riot of all manner of things.

(e) A house is made for living in.—“No!”—“But of course!”—“Then you are a Utopian!”

Truth to tell, the modern man is bored to tears in his home; so he goes to his club. The modern woman is bored outside her boudoir; she goes to tea-parties. The modern man and woman are bored at home; they go to night-clubs. But lesser folk who have no clubs gather together in the evening under the chandelier and hardly dare to walk through the labyrinth of their furniture which takes up the whole room and is all their fortune and their pride.

The existing plan of the dwelling-house takes no account of man and is conceived as a furniture store. This scheme of things, favourable enough so the trade of Tottenham Court Road, is of ill omen for society. It kills the spirit of the family, of the home; there are no homes, no families and no children, for living is much too difficult a business.

The temperance societies and the anti-Malthusians should address an urgent appeal to architects; they should have the MANUAL OF THE DWELLING printed and distributed to mothers of families and should demand the resignation of all the professors in the architectural schools.

THE MANUAL OF THE DWELLING

Demand a bathroom looking south, one of the largest rooms in the house or flat, the old drawing-room for instance. One wall to be entirely glazed, opening if possible on to a balcony for sun baths; the most up-to-date fittings with a shower-bath and gymnastic appliances.

An adjoining room to be a dressing-room in which you can dress and undress. Never undress in
your bedroom. It is not a clean thing to do and makes the room horribly untidy. In this room demand fitments for your linen and clothing, not more than 5 feet in height, with drawers, hangers, etc.

Demand one really large living room instead of a number of small ones.

Demand bare walls in your bedroom, your living room and your dining-room. Built-in fittings to take the place of much of the furniture, which is expensive to buy, takes up too much room and needs looking after.

If you can, put the kitchen at the top of the house to avoid smells.

Demand concealed or diffused lighting.

Demand a vacuum cleaner.

Buy only practical furniture and never buy decorative “pieces.” If you want to see bad taste, go into the houses of the rich. Put only a few pictures on your walls and none but good ones.

Keep your odds and ends in drawers or cabinets.

The gramophone or the pianola or wireless will give you exact interpretations of first-rate music, and you will avoid catching cold in the concert hall, and the frenzy of the virtuoso.

Demand ventilating panes to the windows in every room.

Teach your children that a house is only habitable when it is full of light and air, and when the floors and walls are clear. To keep your floors in order eliminate heavy furniture and thick carpets.
Demand a separate garage to your dwelling.

Demand the maid's room should not be an attic. Do not park your servants under the roof.

Take a flat which is one size smaller than what your parents accustomed you to. Bear in mind economy in your actions, your household management and in your thoughts.

Conclusion. Every modern man has the mechanical sense. The feeling for mechanics exists and is justified by our daily activities. This feeling in regard to machinery is one of respect, gratitude and esteem.

Machinery includes economy as an essential factor leading to minute selection. There is a moral sentiment in the feeling for mechanics.

The man who is intelligent, cold and calm has grown wings to himself.

Men—intelligent, cold and calm—are needed to build the house and to lay out the town.
"Five Points Towards a New Architecture" (1926)

The theoretical considerations set out below are based on many years of practical experience on building sites.

Theory demands concise formulation.

The following points in no way relate to aesthetic fantasies or a striving for fashionable effects, but concern architectural facts that imply an entirely new kind of building, from dwelling house to palatial edifices.

1. **The supports.** To solve a problem scientifically means in the first place to distinguish between its elements. Hence in the case of a building a distinction can immediately be made between the supporting and the non-supporting elements. The earlier foundations, on which the building rested without a mathematical check, are replaced by individual foundations and the walls by individual supports. Both supports and support foundations are precisely calculated according to the burdens they are called upon to carry. These supports are spaced out at specific, equal intervals, with no thought for the interior arrangement of the building. They rise directly from the floor to 3, 4, 6, etc. metres and elevate the ground floor. The rooms are thereby removed from the dampness of the soil; they have light and air; the building plot is left to the garden, which consequently passes under the house. The same area is also gained on the flat roof.

2. **The roof gardens.** The flat roof demands in the first place systematic utilization for domestic purposes: roof terrace, roof garden. On the other hand, the reinforced concrete demands protection against changing temperatures. Over-activity on the part of the reinforced concrete is prevented by the maintenance of a constant humidity on the roof concrete. The roof terrace satisfies both demands (a rain-dampened layer of sand covered with concrete slabs with lawns in the interstices; the earth of the flowerbeds in direct contact with the layer of sand). In this way the rain water will flow off extremely slowly. Waste pipes in the interior of the building. Thus a latent humidity will remain continually on the roof skin. The roof gardens will display highly luxuriant vegetation. Shrubs and even small trees up to 3 or 4 metres tall can be planted. In this way the roof garden will becomes the most favored place in the building. In general, roof gardens mean to a city the recovery of all the built-up area.

3. **The free designing of the ground-plan.** The support system carries the intermediate ceilings and rises up to the roof. The interior walls may be placed wherever required, each floor being entirely independent of the rest. There are no longer any supporting walls but only membranes of any thickness required. The result of this is absolute freedom in designing the ground-plan; that is to say, free utilization of the available means, which makes it easy to offset the rather high cost of reinforced concrete construction.

4. **The horizontal window.** Together with the intermediate ceilings the supports form rectangular openings in the façade through which light and air enter copiously. The window extends from support to support and thus becomes a horizontal window. Stilted vertical windows consequently disappear, as do unpleasant mullions. In this way, rooms are equably lit from wall to wall. Experiments have shown that a room thus lit has an eight times stronger illumination than the same room lit by vertical windows with the same window area.

The whole history of architecture revolves exclusively around the wall apertures.
Through use of the horizontal window reinforced concrete suddenly provides the possibility of maximum illumination.

5. Free design of the façade. By projecting the floor beyond the supporting pillars, like a balcony all round the building, the whole façade is extended beyond the supporting construction. It thereby loses its supportive quality and the windows may be extended to any length at will, without any direct relationship to the interior division. . . . The façade may thus be designed freely.

The five essential points set out above represent a fundamentally new aesthetic. Nothing is left to us of the architecture of past epochs, just as we can no longer derive benefit from the literary and historical teaching given in schools.

Constructional Considerations

Building construction is the purposeful and consistent combination of building elements.

Industries and technological undertakings are being established to deal with the production of these elements.

Serial manufacture enables these elements to be made precise, cheap and good. They can be produced in advance in any number required.

Industries will see to the completion and uninterrupted perfecting of the elements.

Thus the architect has at his disposal a box of building units. His architectural talent can operate freely. It alone, through the building programme, determines his architecture.

The age of the architects is coming.