

# TOWARDS A NEW ARCHITECTURE

## Le Corbusier

For the Swiss-born architect and city planner Le Corbusier (Charles-Édouard Jeanneret, 1887-1965), architecture constituted a noble art, an exalted calling in which the architect combined plastic invention, intellectual speculation, and higher mathematics to go beyond mere utilitarian needs, beyond "style," to achieve a pure creation of the spirit which established "emotional relationships by means of raw materials."

The first major exposition of his ideas appeared in *Vers une Architecture* (1923), a compilation of articles originally written by Le Corbusier for his own avant-garde magazine, *L'Esprit Nouveau*. The present volume is an unabridged English translation of the 13th French edition of that historic manifesto, in which Le Corbusier expounded his technical and aesthetic theories, views on industry, economics, relation of form to function, the "mass-production spirit," and much else. A principal prophet of the "modern" movement in architecture, and a near-legendary figure of the "International School," he designed some of the twentieth century's most memorable buildings: Chapel at Ronchamp; Swiss dormitory at the Cité Universitaire, Paris; Unité d'Habitation, Marseilles; and many more.

Le Corbusier brought great passion and intelligence to these essays, which present his ideas in a concise, pithy style, studded with epigrammatic, often provocative, observations: "American engineers overwhelm with their calculations our expiring architecture." "Architecture is stifled by custom. It is the only profession in which progress is not considered necessary." "... a cathedral is not very beautiful..." and "Rome is the damnation of the half-educated. To send architectural students to Rome is to cripple them for life."

Profusely illustrated with over 200 line drawings and photographs of his own works and other structures he considered important, *Towards a New Architecture* is indispensable reading for architects, city planners, and cultural historians—but will intrigue anyone fascinated by the wide-ranging ideas, unvarnished opinions and innovative theories of one of this century's master builders.

Unabridged and unaltered republication of the work translated from the 13th French edition of *Vers une Architecture*, published by John Rocker Publisher, London, 1931.

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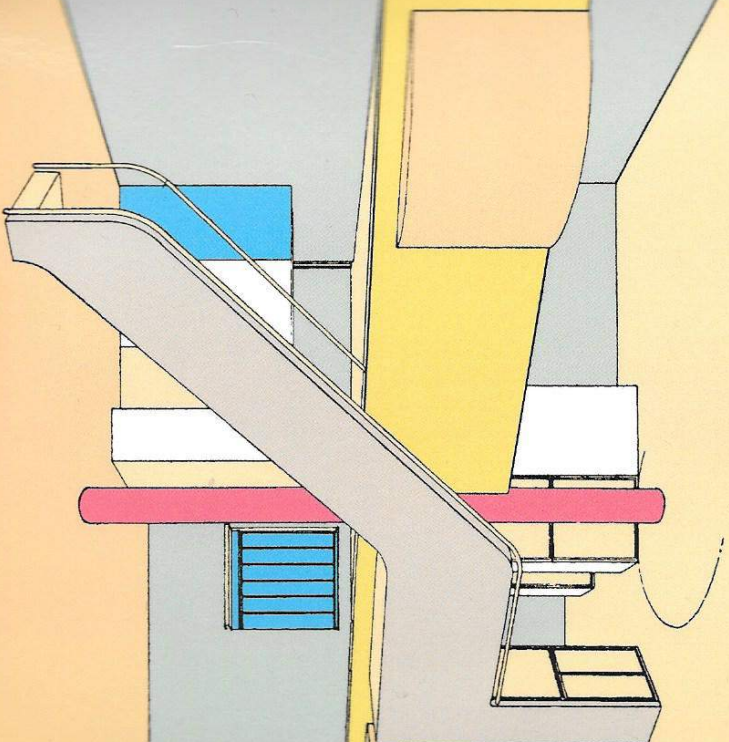
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DOVER

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## ARGUMENT

### THE ENGINEER'S AESTHETIC AND ARCHITECTURE

THE Engineer's Aesthetic, and Architecture, are two things that march together and follow one from the other : the one being now at its full height, the other in an unhappy state of retrogression.

The Engineer, inspired by the law of Economy and governed by mathematical calculation, puts us in accord with universal law. He achieves harmony.

The Architect, by his arrangement of forms, realizes an order which is a pure creation of his spirit ; by forms and shapes he affects our senses to an acute degree and provokes plastic emotions ; by the relationships which he creates he wakes profound echoes in us, he gives us the measure of an order which we feel to be in accordance with that of our world, he determines the various movements of our heart and of our understanding ; it is then that we experience the sense of beauty.

## THREE REMINDERS TO ARCHITECTS

## MASS

Our eyes are constructed to enable us to see forms in light.

Primary forms are beautiful forms because they can be clearly appreciated.

Architects to-day no longer achieve these simple forms.

Working by calculation, engineers employ geometrical forms, satisfying our eyes by their geometry and our understanding by their mathematics; their work is on the direct line of good art.

## SURFACE

A mass is enveloped in its surface, a surface which is divided up according to the directing and generating lines of the mass; and this gives the mass its individuality.

Architects to-day are afraid of the geometrical constituents of surfaces.

The great problems of modern construction must have a geometrical solution.

Forced to work in accordance with the strict needs of exactly determined conditions, engineers make use of generating and accusing lines in relation to forms. They create limpid and moving plastic facts.

## PLAN

The Plan is the generator.

Without a plan, you have lack of order, and wilfulness.

The Plan holds in itself the essence of sensation.

The great problems of to-morrow, dictated by collective necessities, put the question of "plan" in a new form.

Modern life demands, and is waiting for, a new kind of plan, both for the house and for the city.

## REGULATING LINES

An inevitable element of Architecture.

The necessity for order. The regulating line is a guarantee against wilfulness. It brings satisfaction to the understanding.

The regulating line is a means to an end; it is not a recipe. Its choice and the modalities of expression given to it are an integral part of architectural creation.

## EYES WHICH DO NOT SEE

## LINERS

A great epoch has begun.

There exists a new spirit.

There exists a mass of work conceived in the new spirit; it is to be met with particularly in industrial production.

Architecture is stifled by custom.

The "styles" are a lie.

Style is a unity of principle animating all the work of an epoch, the result of a state of mind which has its own special character.

Our own epoch is determining, day by day, its own style. Our eyes, unhappily, are unable yet to discern it.



## A I R P L A N E S

The airplane is the product of close selection.

The lesson of the airplane lies in the logic which governed the statement of the problem and its realization.

The problem of the house has not yet been stated.

Nevertheless there do exist standards for the dwelling house.

Machinery contains in itself the factor of economy, which makes for selection.

The house is a machine for living in.

## A U T O M O B I L E S

We must aim at the fixing of standards in order to face the problem of perfection.

The Parthenon is a product of selection applied to a standard.

Architecture operates in accordance with standards.

Standards are a matter of logic, analysis and minute study; they are based on a problem which has been well "stated."

A standard is definitely established by experiment.

## A R C H I T E C T U R E

## T H E L E S S O N O F R O M E

The business of Architecture is to establish emotional relationships by means of raw materials.

Architecture goes beyond utilitarian needs.

Architecture is a plastic thing.

The spirit of order, a unity of intention.

The sense of relationships; architecture deals with quantities.

Passion can create drama out of inert stone.

## T H E I L L U S I O N O F P L A N S

The Plan proceeds from within to without; the exterior is the result of an interior.

The elements of architecture are light and shade, walls and space.

Arrangement is the gradation of aims, the classification of intentions.

Man looks at the creation of architecture with his eyes, which are 5 feet 6 inches from the ground. One can only deal with aims which the eye can appreciate, and intentions which take into account architectural elements. If there come into play intentions which do not speak the language of architecture, you arrive at the illusion of plans, you transgress the rules of the Plan through an error in conception, or through a leaning towards empty show.

## P U R E C R E A T I O N O F T H E M I N D

Contour and profile<sup>1</sup> are the touchstone of the architect. Here he reveals himself as artist or mere engineer.

Contour is free of all constraint.

There is here no longer any question of custom, nor of

<sup>1</sup> *Modélature*. I give the nearest equivalent of Le Corbusier's use of this word.—F. E.



tradition, nor of construction nor of adaptation to utilitarian needs.

Contour and profile are a pure creation of the mind ; they call for the plastic artist.

### MASS-PRODUCTION HOUSES

A great epoch has begun.

There exists a new spirit.

Industry, overwhelming us like a flood which rolls on towards its destined ends, has furnished us with new tools adapted to this new epoch, animated by the new spirit.

Economic law inevitably governs our acts and our thoughts.

The problem of the house is a problem of the epoch. The equilibrium of society to-day depends upon it. Architecture has for its first duty, in this period of renewal, that of bringing about a revision of values, a revision of the constituent elements of the house.

Mass-production is based on analysis and experiment.

Industry on the grand scale must occupy itself with building and establish the elements of the house on a mass-production basis.

We must create the mass-production spirit.

The spirit of constructing mass-production houses.

The spirit of living in mass-production houses.

The spirit of conceiving mass-production houses.

If we eliminate from our hearts and minds all dead concepts in regard to the house, and look at the question from a critical

and objective point of view, we shall arrive at the "House-Machine," the mass-production house, healthy (and morally so too) and beautiful in the same way that the working tools and instruments which accompany our existence are beautiful.

Beautiful also with all the animation that the artist's sensibility can add to severe and pure functioning elements.

### ARCHITECTURE OR REVOLUTION

In every field of industry, new problems have presented themselves and new tools have been created capable of resolving them. If this new fact be set against the past, then you have revolution.

In building and construction, mass-production has already been begun ; in face of new economic needs, mass-production units have been created both in mass and detail ; and definite results have been achieved both in detail and in mass. If this fact be set against the past, then you have revolution, both in the method employed and in the large scale on which it has been carried out.

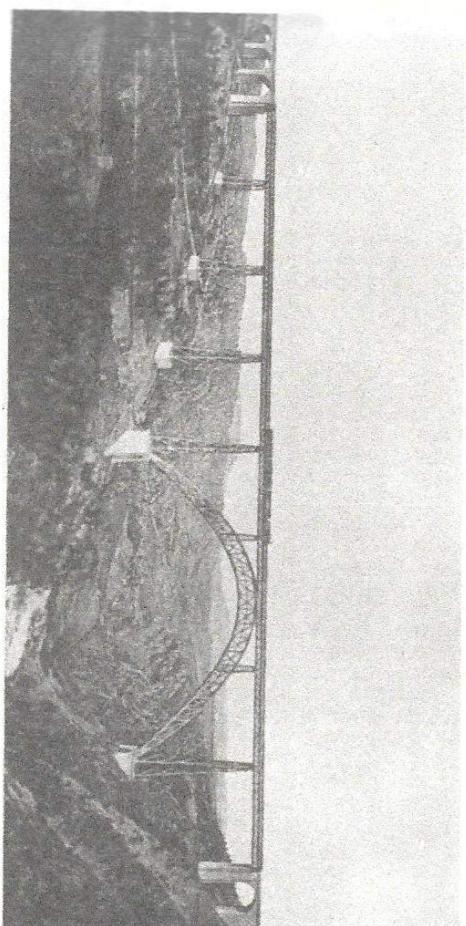
The history of Architecture unfolds itself slowly across the centuries as a modification of structure and ornament, but in the last fifty years steel and concrete have brought new conquests, which are the index of a greater capacity for construction, and of an architecture in which the old codes have been overturned. If we challenge the past, we shall learn that "styles" no longer exist for us, that a style belonging to our own period has come about ; and there has been a Revolution.

Our minds have consciously or unconsciously apprehended these events and new needs have arisen, consciously or unconsciously.

The machinery of Society, profoundly *out of gear*, oscillates between an amelioration, of historical importance, and a catastrophe.

The primordial instinct of every human being is to assure himself of a shelter. The various classes of workers in society to-day *no longer have dwellings adapted to their needs; neither the artisan nor the intellectual.*

It is a question of building which is at the root of the social unrest of to-day : architecture or revolution.



PONT DE GARABIT  
*Designed by Eiffel the engineer.*

## THE ENGINEER'S AESTHETIC AND ARCHITECTURE



*The Engineer's Esthetic and Architecture—two things that march together and follow one from the other—the one at its full height, the other in an unhappy state of retrogression.*

*The Engineer, inspired by the law of Economy and governed by mathematical calculation, puts us in accord with universal law. He achieves harmony.*

*The Architect, by his arrangement of forms, realizes an order which is a pure creation of his spirit; by forms and shapes he affects our senses to an acute degree, and provokes plastic emotions; by the relationships which he creates he wakes in us profound echoes, he gives us the measure of an order which we feel to be in accordance with that of our world, he determines the various movements of our heart and of our understanding; it is then that we experience the sense of beauty.*



The Engineer's Aesthetic and Architecture—two things that march together and follow one from the other—the one at its full height, the other in an unhappy state of retrogression.

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**A** QUESTION of morality ; lack of truth is intolerable, we perish in untruth.

Architecture is one of the most urgent needs of man, for the house has always been the indispensable and first tool that he has forged for himself. Man's stock of tools marks out the stages of civilization, the stone age, the bronze age, the iron age. Tools are the result of successive improvement ; the effort of all generations is embodied in them. The tool is the direct and immediate expression of progress ; it gives man essential assistance and essential freedom also. We throw the out-of-date tool on the scrap-heap : the carbine, the culverin, the growler and the old locomotive. This action is a manifestation of health, of moral health, of *morale* also ; it is not right that we should produce bad things because of a bad tool ; nor is it right that we should waste our energy, our health and our courage because of a bad tool ; it must be thrown away and replaced.

But men live in old houses and they have not yet thought of building houses adapted to themselves. The lair has been dear to their hearts since all time. To such a degree and so strongly that they have established the cult of the home. A

*roof!* then other household gods. Religions have established themselves on dogmas, the dogmas do not change; but civilizations change and religions tumble to dust. Houses have not changed. But the cult of the house has remained the same for centuries. The house will also fall to dust.

A man who practises a religion and does not believe in it is a poor wretch; he is to be pitied. We are to be pitied for living in unworthy houses, since they ruin our health and our *morale*. It is our lot to have become sedentary creatures; our houses gnaw at us in our sluggishness, like a consumption. We shall soon need far too many sanatoriums. We are to be pitied. Our houses disgust us; we fly from them and frequent restaurants and night clubs; or we gather together in our houses gloomily and secretly like wretched animals; we are becoming demoralized.

Engineers fabricate the tools of their time. Everything, that is to say, except houses and moth-eaten boudoirs.

There exists in France a great national school of architecture, and there are, in every country, architectural schools of various kinds, to mystify young minds and teach them dissimulation and the obsequiousness of the toady. National schools!

Our engineers are healthy and virile, active and useful, balanced and happy in their work. Our architects are disillusioned and unemployed, boastful or peevish. This is

because there will soon be nothing more for them to do. *We no longer have the money to erect historical souvenirs.* At the same time, we have got to wash!

Our engineers provide for these things and they will be our builders.

Nevertheless there does exist this thing called ARCHITECTURE, an admirable thing, the loveliest of all. A product of happy peoples and a thing which in itself produces happy peoples.

The happy towns are those that have an architecture.

Architecture can be found in the telephone and in the Parthenon. How easily could it be at home in our houses! Houses make the street and the street makes the town and the town is a personality which takes to itself a soul, which can feel, suffer and wonder. How at home architecture could be in street and town!

The diagnosis is clear.

Our engineers produce architecture, for they employ a mathematical calculation which derives from natural law, and their works give us the feeling of HARMONY. The engineer therefore has his own aesthetic, for he must, in making his calculations, qualify some of the terms of his equation; and it is here that taste intervenes. Now, in handling a mathematical problem, a man is regarding it from a purely abstract point of view, and in such a state, his taste must follow a sure and certain path.



Architects, emerging from the Schools, those hot-houses where blue hortensias and green chrysanthemums are forced, and where unclean orchids are cultivated, enter into the town in the spirit of a milkman who should, as it were, sell his milk mixed with vitriol or poison.<sup>1</sup>

People still believe here and there in architects, as they believe blindly in all doctors. It is very necessary, of course, that houses should hold together ! It is very necessary to have recourse to the man of art ! Art, according to Larousse, is the application of knowledge to the realization of a conception. Now, to-day, it is the engineer who *knows*, who knows the best way to construct, to heat, to ventilate, to light. Is it not true ?

Our diagnosis is that, to begin at the beginning, the engineer who proceeds by knowledge shows the way and holds the truth. It is that architecture, which is a matter of plastic emotion, should in its own domain BEGIN AT THE BEGINNING ALSO, AND SHOULD USE THOSE ELEMENTS WHICH ARE CAPABLE OF AFFECTING OUR SENSES, AND OF REWARDING THE DESIRE OF OUR EYES, and should dispose them in such a way THAT THE SIGHT OF THEM AFFECTS US IMMEDIATELY by their delicacy or their brutality, their riot or their serenity, their indifference or their interest ; these elements are plastic elements, forms which our eyes see clearly and which our mind can measure. These forms, elementary or subtle, tractable or brutal, work physiologically upon our senses (sphere, cube, cylinder, horizontal, vertical, oblique, etc.), and excite

<sup>1</sup> I have not felt it incumbent upon me to modify somewhat rhetorical passages such as the above.—F. E.

them. Being moved, we are able to get beyond the cruder sensations ; certain relationships are thus born which work upon our perceptions and put us into a state of satisfaction (in consonance with the laws of the universe which govern us and to which all our acts are subjected), in which man can employ fully his gifts of memory, of analysis, of reasoning and of creation.

Architecture to-day is no longer conscious of its own beginnings.

Architects work in "styles" or discuss questions of structure in and out of season ; their clients, the public, still think in terms of conventional appearance, and reason on the foundations of an insufficient education. Our external world has been enormously transformed in its outward appearance and in the use made of it, by reason of the machine. We have gained a new perspective and a new social life, but we have not yet adapted the house thereto.

'The time has therefore come to put forward the problem of the house, of the street and of the town, and to deal with both the architect and the engineer.

For the *architect* we have written our "THREE REMINDERS."

MASS which is the element by which our senses perceive and measure and are most fully affected.

SURFACE which is the envelope of the mass and which can diminish or enlarge the sensation the latter gives us.

PLAN which is the generator both of mass and surface and is that by which the whole is irrevocably fixed.



Then, still for the architect, "REGULATING LINES" showing by these one of the means by which architecture achieves that tangible form of mathematics which gives us such a grateful perception of order. We wished to set forth facts of greater value than those in many dissertations on the soul of stones. We have confined ourselves to the natural philosophy of the matter, *to things that can be known*.

We have not forgotten the dweller in the house and the crowd in the town. We are well aware that a great part of the present evil state of architecture is due to the *client*, to the man who gives the order, who makes his choice and alters it and who pays. For him we have written "EYES WHICH DO NOT SEE."

We are all acquainted with too many big business men, bankers and merchants, who tell us: "Ah, but I am merely a man of affairs, I live entirely outside the art world, I am a Philistine." We protest and tell them: "All your energies are directed towards this magnificent end which is the forging of the tools of an epoch, and which is creating throughout the whole world this accumulation of very beautiful things in which economic law reigns supreme, and mathematical exactness is joined to daring and imagination. That is what you do; that, to be exact, is Beauty."

One can see these same business men, bankers and merchants, away from their businesses in their own homes, where everything seems to contradict their real existence—rooms too small, a conglomeration of useless and disparate objects, and a sickening spirit reigning over so many shams—Aubusson, Salon d'Automne, styles of all sorts and absurd

bric-à-brac. Our industrial friends seem sheepish and shrivelled like tigers in a cage; it is very clear that they are happier at their factories or in their banks. We claim, in the name of the steamship, of the airplane, and of the motor-car, the right to health, logic, daring, harmony, perfection.

We shall be understood. These are evident truths. It is not foolishness to hasten forward a clearing up of things.

Finally, it will be a delight to talk of ARCHITECTURE after so many grain-stores, workshops, machines and sky-scrapers. ARCHITECTURE is a thing of art, a phenomenon of the emotions, lying outside questions of construction and beyond them. The purpose of construction is TO MAKE THINGS HOLD TOGETHER; of architecture TO MOVE US. Architectural emotion exists when the work rings within us in tune with a universe whose laws we obey, recognize and respect. When certain harmonies have been attained, the work captures us. Architecture is a matter of "harmonies," it is "a pure creation of the spirit."

To-day, painting has outsped the other arts.

It is the first to have attained attunement with the epoch.<sup>1</sup> Modern painting has left on one side wall decoration, tapestry and the ornamental urn and has sequestered itself in a frame—flourishing, full of matter, far removed from a distracting realism; it lends itself to meditation. Art is no longer anecdotal, it is a source of meditation; after the day's work it is good to meditate.

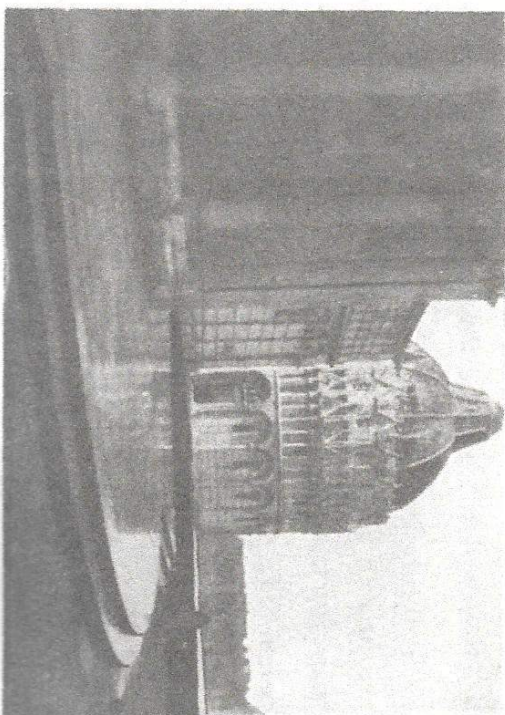
<sup>1</sup> I mean, of course, the vital change brought about by cubism and later researches, and not the lamentable fall from grace which has for the last two years seized upon painters, distracted by lack of sales and taken to task by critics as little instructed as sensitive (1921).



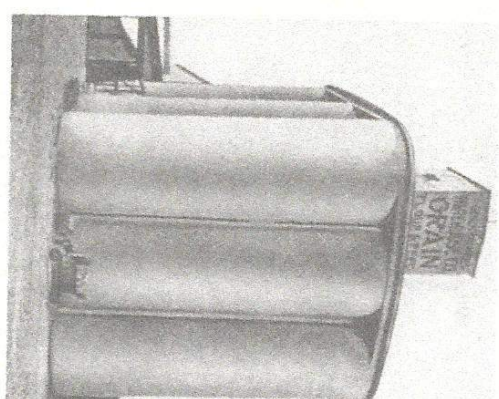
On the one hand the mass of people look for a decent dwelling, and this question is of burning importance.

On the other hand the man of initiative, of action, of thought, the LEADER, demands a shelter for his meditations in a quiet and sure spot; a problem which is indispensable to the health of specialized people.

Painters and sculptors, champions of the art of to-day, you who have to bear so much mockery and who suffer so much indifference, let us purge our houses, give your help that we may reconstruct our towns. Your works will then be able to take their place in the framework of the period and you will everywhere be admitted and understood. Tell yourselves that architecture has indeed need of your attention. Do not forget the problem of architecture.



PISA



GRAIN ELEVATOR

## THREE REMINDERS TO ARCHITECTS

### I

### MASS