Programs and manifestoes on 20th-century architecture

Translated by Michael Bullock

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Adolf Loos (b. 1870 in Brno, d. 1933 in Vienna) brought back with him to Vienna from his three-year stay in the United States (1893–6) a remark of Louis Sullivan's: 'It could only benefit us if for a time we were to abandon ornament and concentrate entirely on the erection of buildings that were finely shaped and charming in their sobriety'. From this Loos developed his radical aesthetic purism, which made him a zealous foe of Art Nouveau and the German Werkbund: 'The German Werkbund has set out to discover the style of our age. This is unnecessary labour. We already have the style of our age.'

The human embryo in the womb passes through all the evolutionary stages of the animal kingdom. When man is born, his sensory impressions are like those of a newborn puppy. His childhood takes him through all the metamorphoses of human history. At 2 he sees with the eyes of a Papuan, at 4 with those of an ancient Teuton, at 6 with those of Socrates, at 8 with those of Voltaire. When he is 8 he becomes aware of violet, the colour discovered by the eighteenth century, because before that the violet was blue and the purple-snail red. The physicist points today to colours in the solar spectrum which already have a name but the knowledge of which is reserved for the men of the future.

The child is amoral. To our eyes, the Papuan is too. The Papuan kills his enemies and eats them. He is not a criminal. But when modern man kills someone and eats him he is either a criminal or a degenerate. The Papuan tattoos his skin, his boat, his paddles, in short everything he can lay hands on. He is not a criminal. The modern man who tattoos himself is either a criminal or a degenerate. There are prisons in which eighty per cent of the inmates show tattoos. The tattooed who are not in prison are latent criminals or degenerate aristocrats. If someone who is tattooed dies at liberty, it means he has died a few years before committing a murder.

The urge to ornament one's face and everything within reach is the start of plastic art. It is the baby talk of painting. All art is erotic.

The first ornament that was born, the cross, was erotic in origin. The first work of art, the first artistic act which the first artist, in order to rid himself of his surplus energy, smeared on the wall. A horizontal dash: the prone woman. A vertical dash: the man penetrating her. The man who created it felt the same urge as Beethoven, he was in the same heaven in which Beethoven created the Ninth Symphony.

But the man of our day who, in response to an inner urge, smears the walls with erotic symbols is a criminal or a degenerate. It goes without saying that this impulse most frequently assails people with such symptoms of degeneracy in the lavatory. A country's culture can be assessed by the extent to which its lavatory walls are smeared. In the child this is a natural phenomenon: his
first artistic expression is to scribble erotic symbols on the walls. But what is natural to the Papuan and the child is a symptom of degeneracy in the modern adult. I have made the following discovery and I pass it on to the world: 'The evolution of culture is synonymous with the removal of ornament from utilitarian objects.' I believed that with this discovery I was bringing joy to the world; it has not thanked me. People were sad and hung their heads. What depressed them was the realization that they could produce no new ornaments. Are we alone, the people of the nineteenth century, supposed to be unable to do what any Negro, all the races and periods before us have been able to do? What mankind created without ornament in earlier milleniums was thrown away without a thought and abandoned to destruction. We possess no joiner's benches from the Carolingian era, but every trifle that displays the least ornament has been collected and cleaned and palatial buildings have been erected to house it. Then people walked sadly about between the glass cases and felt ashamed of their impotence. Every age had its style, is our age alone to be refused a style? By style, people meant ornament. Then I said: Weep not! See, therein lies the greatness of our age, that it is incapable of producing a new ornament. We have outgrown ornament; we have fought our way through to freedom from ornament. See, the time is nigh, fulfilment awaits us. Soon the streets of the city will glisten like white walls. Like Zion, the holy city, the capital of heaven. Then fulfilment will be come.

There were black albs, clerical gentlemen, who wouldn't put up with that. Mankind was to go on parading in slavery to ornament. Men had gone far enough for ornament no longer to arouse feelings of pleasure in them, far enough for a tattooed face not to heighten the aesthetic effect, as among the Papuans, but to reduce it. Far enough to take pleasure in a plain cigarette case, whereas an ornamented one, even at the same price, was not bought. They were happy in their clothes and glad they didn't have to go around in red velvet hose with gold braid like fairground monkeys. And I said: See, Goethe's death-chamber is finer than all Renaissance splendour and a plain piece of furniture more beautiful than any inlaid and carved museum pieces. Goethe's language is finer than all the ornaments of Pogazzi's shepherds.

The black albs heard this with displeasure, and the state, whose task it is to halt the cultural development of the peoples, made the question of the development and revival of ornament its own. Woe to the state whose revolutions are in the care of the Hofrats! Very soon we saw in the Wiener Kunstgewerbemuseum [Vienna Museum of Applied Art] a sideboard known as 'the rich haul of fish', soon there were cupboards bearing the name 'the enchanted princess' or something similar referring to the ornament with which this unfortunate piece of furniture was covered. The Austrian state took its task so seriously that it is making sure the foot-rags used on the frontiers of the Austro-Hungarian monarchy do not disappear. It is forcing every cultivated man of 20 for three years to wear foot-rags instead of manufactured footwear. After all, every state starts from the premise that a people on a lower footing is easier to rule.

Very well, the ornament disease is recognized by the state and subsidized with state funds. But I see in this a retrograde step. I don't accept the objection that ornament heightens a cultivated person's joy in life, don't accept the objection contained in the words: 'But if the ornament is beautiful!' Ornament does not heighten my joy in life or the joy in life of any cultivated person. If I want to eat a piece of gingerbread I choose one that is quite smooth and not a piece representing a heart or a baby or a rider, which is covered all over with ornaments. The man of the fifteenth century wouldn't understand me. But all modern people will. The advocate of ornament believes that my urge for simplicity is in the nature of a mortification. No, respected professor at the school of applied art, I am not mortifying myself! The show dishes of past centuries, which display all kinds of ornaments to make the pheasants, pheasants and lobsters look more tasty, have exactly the opposite effect on me. I am horrified when I go through a cookery exhibition and think that I am meant to eat these stuffed carcasses. I eat roast beef.

The enormous damage and devastation caused in aesthetic development by the revival of ornament would be easily made light of, for no one, not even the power of the state, can halt mankind's evolution. It can only be delayed. We can wait. But it is a crime against the national economy that it should result in a waste of human labour, money, and material. Time cannot make good this damage.

The speed of cultural evolution is reduced by the stragglers. I perhaps am living in 1908, but my neighbour is living in 1900 and the man across the way in 1880. It is unfortunate for a state when the culture of its inhabitants is spread over such a great period of time. The peasants of Kals are living in the twelfth century. And there were peoples taking part in the Jubilee parade [of the Emperor Franz Joseph] who would have been considered backward even during the migration of the nations. Happy the land that has no such stragglers and marauders. Happy America!

Among ourselves there are unmodern people even in the cities, stragglers from the eighteenth century, who are horrified by a picture with purple shadows because they cannot yet see purple. The pheasant on which the chef has been working all day long tastes better to them and they prefer the cigarette case with Renaissance ornaments to the smooth one. And what is it like in the country? Clothes and household furniture all belong to past centuries. The peasant isn't a Christian, he is still a pagan.

The stragglers slow down the cultural evolution of the nations and of mankind; not only is ornament produced by criminals but also a crime is committed through the fact that ornament infects serious injury on people's health, on the national budget and hence on cultural evolution. If two people live side by side with the same needs, the same demands on life and the same income but belonging to different cultures, economically speaking the following process can be observed: the twentieth-century man will get richer and richer, the eighteenth-century man poorer and poorer. I am assuming that both live according to their inclinations. The twentieth-century man can satisfy his needs with a far lower capital outlay and hence can save money. The vegetable he enjoys is simply boiled in water and has a little butter put on it. The other man likes it equally well only when honey and nuts have been
added to it and someone has spent hours cooking it. Ornamented plates are very expensive, whereas the white crockery from which the modern man likes to eat is cheap. The one accumulates savings, the other debts. It is the same with whole nations. Woe when a people remains behind in cultural evolution! The British are growing wealthier and we poorer . . .

Even greater is the damage done by ornament to the nation that produces it. Since ornament is no longer a natural product of our culture, so that it is a phenomenon either of backwardness or degeneration, the work of the ornamentator is no longer adequately remunerated.

The relationship between the earnings of a woodcarver and a turner, the criminally low wages paid to the embroideress and the lacemaker are well known. The ornamentator has to work twenty hours to achieve the income earned by a modern worker in eight. Ornament generally increases the cost of an article; nevertheless it happens that an ornamented object whose raw material cost the same and which demonstrably took three times as long to make is offered at half the price of a smooth object. Omission of ornament results in a reduction in the manufacturing time and an increase in wages. The Chinese carver works for sixteen hours, the American worker for eight. If I pay as much for a smooth cigarette case as for an ornamented one, the difference in the working time belongs to the worker. And if there were no ornament at all — a situation that may perhaps come about in some thousands of years — man would only have to work four hours instead of eight, because half of the work done today is devoted to ornament. Ornament is wasted labour and hence wasted health. It has always been so.

Since ornament is no longer organically linked with our culture, it is also no longer the expression of our culture. The ornament that is manufactured today has no connexion with us, has absolutely no human connexions, no connexion with the world order. It is not capable of developing. What happened to Otto Eckmann's ornament, or van de Velde's? The artist has always stood at the forefront of mankind full of vigour and health. But the modern ornamentalist is a straggler or a pathological phenomenon. He himself will repudiate his own products three years later. To cultivated people they are immediately intolerable; others become aware of their intolerable character only years later. Where are Otto Eckmann's works today? Modern ornament has no parents and no progeny, no past and no future. By uncultivated people, to whom the grandeur of our age is a book with seven seals, it is greeted joyfully and shortly afterwards repudiated.

Mankind is healthier than ever; only a few people are sick. But these few tyrannize over the worker who is so healthy that he cannot invent ornament. They force him to execute in the most varied materials the ornaments which they have invented.

Changes of ornament lead to a premature devaluation of the labour product. The worker's time and the material employed are capital goods that are wasted. I have stated the proposition: the form of an object lasts, that is to say remains tolerable, as long as the object lasts physically. I will try to explain this. A suit will change its form more often than a valuable fur. A lady's ball gown, intended for only one night, will change its form more quickly than a desk. But woe if a desk has to be changed as quickly as a ball gown because the old form has become intolerable; in that case the money spent on the desk will have been lost.

This is well known to the ornamentalist, and Austrian ornamentalists are trying to make the best of this shortcoming. They say: 'We prefer a consumer who has a set of furniture that becomes intolerable to him after ten years, and who is consequently forced to refurbish every ten years, to one who only buys an object when the old one is worn out. Industry demands this. Millions are employed as a result of the quick change.'

This seems to be the secret of the Austrian national economy. How often do we hear someone say when there is a fire: 'Thank God, now there will be work for people to do again.' In that case I know a splendid solution. Set fire to a town, set fire to the empire, and everyone will be swimming in money and prosperity. Manufacture furniture which after three years can be used for firewood, metal fittings that have to be melted down after four years because even at an auction sale it is impossible to get a tenth of the original value of the material and labour, and we shall grow wealthier and wealthier.

The loss does not hit only the consumer; above all it hits the producer. Today ornament on things that have evolved away from the need to be ornamented represents wasted labour and ruined material. If all objects would last aesthetically as long as they do physically, the consumer could pay a price for them that would enable the worker to earn more money and work shorter hours. For an object I am sure I can use to its full extent I willingly pay four times as much as for one that is inferior in form or material. I happily pay forty kronen for my boots, although in a different shop I could get boots for ten kronen. But in those trades that groan under the tyranny of the ornamentalist no distinction is made between good and bad workmanship. The work suffers because no one is willing to pay its true value.

And this is a good thing, because these ornamented objects are tolerable only when they are of the most miserable quality. I get over a fire much more easily when I hear that only worthless trash has been burned. I can be pleased about the trash in the Kunstlerhaus because I know that it will be manufactured in a few days and taken to pieces in one. But throwing gold coins instead of stones, lighting a cigarette with a banknote, pulverizing and drinking a pearl create an unaesthetic effect.

Ornamented things first create a truly unaesthetic effect when they have been executed in the best material and with the greatest care and have taken long hours of labour. I cannot exonerate myself from having initially demanded quality work, but naturally not for that kind of thing.

The modern man who holds ornament sacred as a sign of the artistic super-abundance of past ages will immediately recognize the tortured, strained, and morbid quality of modern ornaments. No ornament can any longer be made today by anyone who lives on our cultural level.

It is different with the individuals and peoples who have not yet reached this level.
I am preaching to the aristocrat. I mean the person who stands at the pinnacle of mankind and yet has the deepest understanding for the distress and want of those below. He well understands the Kaffir who weaves ornaments into his fabric according to a particular rhythm that only comes into view when it is unravelled, the Persian who weaves his carpet, the Slovak peasant woman who embroiders her lace, the old lady who crochets wonderful things with glass beads and silk. The aristocrat lets them be; he knows that the hours in which they work are their holy hours. The revolutionary would go to them and say: 'It's all nonsense.' Just as he would pull down the little old woman from the wayside crucifix and tell her: 'There is no God.' The atheist among the aristocrats, on the other hand, raises his hat when he passes a church.

My shoes are covered all over with ornaments consisting of scallops and holes. Work done by the shoemaker for which he was never paid. I go to the shoemaker and say: 'You ask thirty kronen for a pair of shoes, I will pay you forty kronen.' I have thereby raised this man to heights of bliss for which he will thank me by work and material infinitely better than would be called for by the additional price. He is happy. Happiness rarely enters his house. Here is a man who understands him, who values his work and does not doubt his honesty. He already sees the finished shoes in his mind's eye. He knows where the best leather is to be found at the present time; he knows which craftsman will entrust the shoes to; and the shoes will be so covered in scallops and holes as only an elegant shoe can be. And then I say to him: 'But there's one condition. The shoes must be completely smooth.' With this I have cast him down from the heights of bliss to the pit of despondency. He has less work, but I have taken away all his joy.

I am preaching to the aristocrat. I tolerate ornaments on my own body, when they constitute the joy of my fellow men. Then they are my joy too. I can tolerate the ornaments of the Kaffir, the Persian, the Slovak peasant woman, my shoemaker's ornaments, for they all have no other way of attaining the high points of their existence. We have art, which has taken the place of ornament. After the toils and troubles of the day we go to Beethoven or to Tristan. This my shoemaker cannot do. I mustn't deprive him of his joy, since I have nothing else to put in its place. But anyone who goes to the Ninth Symphony and then sits down and designs a wallpaper pattern is either a confidence trickster or a degenerate. Absence of ornament has brought the other arts to unsuspected heights. Beethoven's symphonies would never have been written by a man who had to walk about in silk, satin, and lace. Anyone who goes around in a velvet coat today is not an artist but a buffoon or a house painter. We have grown finer, more subtle. The nomadic herdsmen had to distinguish themselves by various colours; modern man uses his clothes as a mask. So immensely strong is his individuality that it can no longer be expressed in articles of clothing. Freedom from ornament is a sign of spiritual strength. Modern man uses the ornaments of earlier or alien cultures as he sees fit. He concentrates his own inventiveness on other things.

1910 Frank Lloyd Wright: Organic architecture (excerpt)

In 1910 Frank Lloyd Wright (b. 1867 or 1869 in Richland Center, Wisconsin, d. 1959 in Taliesin West, Arizona) came to Germany at the invitation of the publisher Ernst Wasmuth in order to supervise the first publication of his Collected Works (1893–1910). Kuno Franck, for some time an exchange professor at Harvard, had drawn attention to Wright in Berlin. With this publication, for which Wright himself wrote an introduction, the architectural idea of a free spatial flow between the various dwelling-areas, and the organic development of a building on an L-, X-, or T-shaped ground plan gained a firm foothold in Europe.

In Organic Architecture then, it is quite impossible to consider the building as one thing, its furnishings another and its setting and environment still another. The Spirit in which these buildings are conceived sees all these together at work as one thing. All are to be studiously foreseen and provided for in the nature of the structure. All these should become mere details of the character and completeness of the structure. Incorporated (or excluded) are lighting, heating and ventilation. The very chairs and tables, cabinets and even musical instruments, where practicable, are of the building itself, never fixtures upon it...

To thus make of a human dwelling-place a complete work of art, in itself expressive and beautiful, intimately related to modern life and fit to live in, lending itself more freely and suitably to the individual needs of the dwellers as itself an harmonious entity, fitting in colour, pattern and nature the utilities and be really an expression of them in character, — this is the tall modern American opportunity in Architecture. True basis of a true Culture. An exalted view to take of the 'property instinct' of our times? But once founded and on view I believe this Ideal will become a new Tradition: a vast step in advance of the prescribed fashion in a day when a dwelling was a composite of cells arranged as separate rooms: chambers to contain however good aggregations of furniture, utility comforts not present: a property interest chiefly. An organic-entity, this modern building as contrasted with that former insensate aggregation of parts. Surely we have here the higher ideal of unity as a more intimate working out of the expression of one's life in one's environment. One great thing instead of a quarrelling collection of so many little things.
1914  Paul Scheerbart:  
Glass architecture (excerpt)

The architect Bruno Taut called Paul Scheerbart (b. 1863 in Danzig, d. 1915 in Berlin) the ‘only poet in architecture’. Scheerbart’s Utopian phantasimagoria, which he wrote in marvellous abundance from 1893 on, evokes more impressively each time the idea of a ‘glass architecture’, the architect’s dream of light, crystal clear, colourful, mobile, floating and soaring constructions that will transform ‘Old Europe’s’ habits of thought and feeling. In 1914, the same year in which Bruno Taut, inspired by Scheerbart, built his ‘Glass House’ at the Werkbund Exhibition in Cologne, Herwarth Walden printed Scheerbart’s I1-chapter ‘Glass Architecture’ in Sturm.

I. The environment and its influence on the evolution of culture
We live for the most part within enclosed spaces. These form the environment from which our culture grows. Our culture is in a sense a product of our architecture. If we wish to raise our culture to a higher level, we are forced for better or for worse to transform our architecture. And this will be possible only if we remove the enclosed quality from the spaces within which we live. This can be done only through the introduction of glass architecture that lets the sunlight and the light of the moon and stars into our rooms not merely through a few windows, but simultaneously through the greatest possible number of walls that are made entirely of glass – coloured glass. The new environment that we shall thereby create must bring with it a new culture.

XVIII. The beauty of the Earth if glass architecture is everywhere
The surface of the Earth would change greatly if brick architecture were everywhere displaced by glass architecture.

It would be as though the Earth clad itself in jewellery of brilliants and enamel.

The splendour is absolutely unimaginable. And we should then have on the Earth more exquisite things than the gardens of the Arabian Nights.

Then we should have a paradise on Earth and would not need to gaze longingly at the paradise in the sky.

XLI. The possibilities which iron construction renders capable of development
Iron construction makes it possible to give walls any form that may be desired. Walls need no longer be vertical.

Hence the possibilities which iron construction enables to be developed are quite unlimited.

The dome effects up above can be displaced to the sides, so that when sitting at a table one need only look sideways and upwards in order to observe the dome effect.

But curved surfaces are also effective in the lower parts of the walls – this effect is particularly easy to achieve in smaller rooms.

Smaller rooms are totally and completely freed from the need for verticality.

The significance of the ground-plan in architecture is thereby greatly reduced; the design of the outline of the building acquires greater importance than hitherto.

LXII. The terraces
No doubt a terrace formation is necessary in taller glass buildings and with several storeys, since otherwise the glass surfaces could not reach the light-conducting air, to which they aspire, since in darkness they can fulfill their purpose only at night – not during the day.

This terrace formation of the storeys will of course quickly replace the dreary frontal architecture of brick houses.

LXXI. Transportable buildings
Transportable glass buildings can also be manufactured. They are particularly well suited for exhibition purposes.

Such transportable buildings are not exactly easy to produce. But let it not be forgotten that when something new is involved it is very often precisely the most difficult problem that is tackled first.

CII. The transformation of the Earth’s surface
Again and again something sounds to us like a fairy tale, when it is not really so fantastic or Utopian at all. Eighty years ago the steam railway came along and actually transformed the whole surface of the Earth, as no one will deny.

According to what has been said so far the surface of the Earth is to be transformed – and by glass architecture. If it comes, it will transform the Earth’s surface. Naturally, a part will also be played by other factors outside the present discussion.

It was the steam railway that produced the brick metropolis culture of today from which we all suffer. Glass architecture will come only when the metropolis in our sense of the word has been done away with.

That it must be done away with is perfectly clear to all those who aim at the further evolution of our culture. This is no longer worth talking about.

We all know what colour means; it forms only a small part of the spectrum. But this we want to have. Infra-red and ultra-violet are not perceptible to our eyes – but no doubt ultra-violet is perceptible to the sense organs of ants.

Even if we cannot for the present assume that our sense organs will evolve further from today to tomorrow, we shall nevertheless be justified in supposing that to begin with we may attain that which is accessible to us – to wit, that part of the spectrum which we are able to perceive with our eyes, those miracles of colour which we are capable of taking in.

The only thing that can help us to do this is glass architecture, which must transform our whole life – the environment in which we live.

It is therefore to be hoped that glass architecture really will ‘transform’ the surface of our Earth.
1914 Antonio Sant'Elia/Filippo Tommaso Marinetti: Futurist architecture

In 1914 two young architects, Antonio Sant'Elia and Mario Chiattone, exhibited in Milan drawings and plans for a 'New City'. The radical ideas put forward by Antonio Sant'Elia (b. 1888 in Como, killed 1916 at Monfalcone), the mouthpiece of Italian Futurism, were immediately reinterpreted by Marinetti, who appeared in July of the same year, four months after Marinetti's Manifesto The Splendour of Geometry and Mechanics and the Sensibility of Numbers, and concluded the series of great Futurist proclamations.

The words and passages in italics were added to Sant'Elia's statement by Marinetti and Cinti.

Since the eighteenth century there has been no more architecture. What is called modern architecture is a stupid mixture of the most varied stylistic elements used to mask the modern skeleton. The new beauty of concrete and iron is profaned by the superimposition of carnival decorative incrustations justified neither by structural necessity nor by our taste, and having their origins in Egyptian, Indian or Byzantine antiquity or in that astounding outburst of idiocies and impotence known as 'neo-classicism'.

In Italy these products of architectural pandering are welcomed, and greedy incompetence from abroad is rated as brilliant inventiveness, as the very latest architecture. Young Italian architects (those who gain a reputation for originality through the clandestine machinations of art magazines) display their talents in the new quarters of our cities, where a joyful confusion of ogival columns, seventeenth-century foliage, Gothic arches, Egyptian pilasters, rococo volutes, fifteenth-century putti and bloated caryatids seriously claim to be regarded as style and arrogantly strive for monumentality. The kaleidoscopic appearance and disappearance of forms, the constantly growing number of machines, the daily increase of needs imposed by the speed of communications, by the agglomeration of people, by the demands of hygiene and a hundred other phenomena of modern life, cause no concern to these self-styled renewers of architecture. They stubbornly continue to apply the rules of Vitruvius, Vignola and Sansovino and with a few little German architectural publications in their hands try to re-impose age-old immunities upon our cities, which ought to be the direct and faithful projections of ourselves.

Thus this art of expression and synthesis has become in their hands an empty stylistic exercise, an endless repetition of formulas incompetently employed to disguise as a modern building the usual hackneyed conglomerations of bricks and stones. As though we--the accumulators and generators of movement, with our mechanical extensions, with the noise and speed of our life--could live in the same streets built for their own needs by the men of four, five, six centuries ago.

This is the supreme idiocy of the modern architecture that constantly repeats itself with the self-interested complicity of the academies, those prisons of the intelligence in which the young are forced ontanistically to copy classical models, instead of opening up their minds to the search for limits and the solution of the new and imperious problem: 'the Futurist house and city'. The house and the city spiritually and materially ours, in which our turbulent existence can take place without appearing a grotesque anachronism.

The problem of Futurist architecture is not a problem of linear rearrangement. It is not a question of finding new profiles, new door and window frames, substitutes for columns, pilasters, consoles, caryatids, gargoyles. It is not a question of leaving the facade bare brick, painting it or facing it with stone; nor of establishing formal differences between new and old buildings. It is a question of creating the Futurist house according to a sound plan, of building it with the aid of every scientific and technical resource of fulfilling to the limit every demand of our way of life and our spirit, of rejecting everything grotesque, cumbrous, and alien to us (tradition, style, aesthetic, proportion), establishing new forms, new lines, a new harmony of profiles and volumes, an architecture whose raison d'être lies solely in the special conditions of modern life, whose aesthetic values are in perfect harmony with our sensibility. This architecture cannot be subject to any law of historical continuity. It must be as new as our frame of mind is new.

The art of building has been able to evolve in time and to pass from one style to another, while maintaining the general characteristics of architecture unaltered, because, while changes due to fashion and those resulting from successive religious movements and political regimes are frequent in history, factors that cause profound changes in environmental conditions, that overturn the old and create the new--such things as the discovery of natural laws, the perfecting of mechanical systems, the rational and scientific use of material--are very rare indeed. In modern times, the process of the consistent stylistic evolution of architecture has come to a stop. 'Architecture is breaking free from tradition. It must performer begin again from the beginning.'

The calculation of the strength of materials, the use of reinforced concrete, rule out 'architecture' in the classical and traditional sense. Modern building materials and our scientific ideas absolutely do not lend themselves to the disciplines of historical styles, and are the chief cause of the grotesque appearance of buildings à la mode, in which an attempt is made to force the splendidly light and slender supporting members and the apparent fragility of reinforced concrete to imitate the heavy curve of arches and the massive appearance of marble.

The tremendous antithesis between the modern and the ancient world is the outcome of all those things that exist now and did not exist then. Elements have entered into our life of whose very possibility the ancients did not even dream. Material possibilities and attitudes of mind have come into being that have had a thousand repercussions, first and foremost of which is the creation of a new ideal of beauty, still obscure and embryonic, but whose fascination is already being felt even by the masses. We have lost the sense of the monumental, of the heavy, of the static; we have enriched our sensibility by a 'taste
for the light, the practical, *the ephemeral and the swift*. We feel that we are no longer the men of the cathedrals, *the palaces*, the assembly halls; but of big hotels, railway stations, immense roads, colossal ports, covered markets, brilliantly lit galleries, freeways, demolition and rebuilding schemes.

We must invent and rebuild the *Futurist* city: it must be like an immense, tumultuous, lively, noble work site, dynamic in all its parts; and the *Futurist* house must be like an enormous machine. The lifts must not hide like lonely worms in the stair wells; the stairs, become useless, must be done away with and the lifts must climb like serpents of iron and glass up the housefronts. The house of concrete, glass, and iron, *without painting and without sculpture*, enriched solely by the innate beauty of its lines and projections, extremely ‘ugly’ in its mechanical simplicity, high and wide *as prescribed by local government regulations*, must rise on the edge of a tumultuous abyss: the street, which will no longer stretch like a foot-mat level with the porters’ lodges, but will descend into the earth on several levels, will receive the metropolitan traffic and will be linked, for the necessary passage from one to the other, by metal walkways and immensely fast escalators.

‘The decorative must be abolished.’ The problem of *Futurist* architecture must be solved not by plagiarizing China, Persia, or Japan with the aid of photographs, not by foolishly adhering to the rules of Vitruvius, but by strokes of genius and armed with scientific and technical *experience*. Everything must be revolutionary. We must exploit the roofs, utilize the basements, reduce the importance of the façades, transplant the problems of good taste from the petty domain of the section, the capital, the entrance door, to the wider one of great ‘groupings of masses’, of vast ‘town planning projects’. Let us have done with monumental, funereal, commemorative architecture. Let us throw away monuments, sidewalks, arcades, steps; let us sink squares into the ground, raise the level of the city.

I oppose and despise:

1. *All the pseudo avant-garde architecture of Austria, Hungary, Germany, and America.*

2. *All classical, solemn, hieratic, theatrical, decorative, monumental, frivolous, pleasing architecture.*

3. The embalming, reconstruction, and reproduction of monuments and ancient palaces.

4. Perpendicular and horizontal lines, cubic and pyramidal forms that are static, heavy, oppressive and absolutely alien to our new sensibility.

*And proclaim:*

1. That *Futurist* architecture is the architecture of calculation, of audacity and
simplicity; the architecture of reinforced concrete, of iron, of glass, of pasteboard, of textile fibre, and of all those substitutes for wood, stone, and brick which make possible maximum elasticity and lightness.

2. That this does not render architecture an arid combination of the practical and utilitarian, but that it remains art, that is to say, synthesis and expression.

3. That oblique and elliptical lines are dynamic by their very nature and have an emotive power a thousand times greater than that of perpendicular and horizontal lines and that a dynamically integrated architecture is impossible without them.

4. That decoration, as something imposed upon architecture, is an absurdity and that 'the decorative value of Futurist architecture depends solely upon the original use and arrangement of the raw or bare or violently coloured material'.

5. That, just as the ancients drew the inspiration for their art from the elements of nature, so we – being materially and spiritually artificial – must find this inspiration in the elements of the immensely new mechanical world which we have created, of which architecture must be the finest expression, the most complete synthesis, the most efficacious artistic integration.

6. Architecture as the art of arranging the forms of buildings according to predetermined criteria is finished.

7. Architecture must be understood as the endeavour to harmonize, with freedom and great audacity, the environment with man, that is to say, to make the world a natural projection of the spirit.

8. An architecture so conceived cannot give birth to any three-dimensional or linear habit, because the fundamental characteristics of Futurist architecture will be obsolescence and transience. 'Houses will last less long than we. Each generation will have to build its own city.' This constant renewal of the architectonic environment will contribute to the victory of 'Futurism' already affirmed with 'Words in Freedom', 'Plastic Dynamism', 'Music without Bars', and 'The Art of Sounds', a victory for which we fight without pause against the cowardly worship of the past.

1918 ‘De Stijl’
Manifesto I

The famous first manifesto of the De Stijl group, the full importance of which can only now be assessed, appeared in November 1918 and introduced the second year of the periodical of the same name. A year earlier a group of radical artists had been formed in Leyden under the leadership of Theo van Doesburg (b.1883 in Utrecht, d.1931 in Davos). Their goal: the organic combination of architecture, sculpture and painting in a lucid, elemental, unsentimental construction. The group took the name 'De Stijl', thereby stating quite precisely that their constructive doctrine was aimed at a new aesthetic. The first word was 'purity'; a 'white' world was to replace the 'brown' one.

1. There is an old and a new consciousness of the age. The old one is directed towards the individual. The new one is directed towards the universal. The struggle of the individual against the universal may be seen both in the world war and in modern art.

2. The war is destroying the old world with its content: individual predominance in every field.

3. The new art has brought to light that which is contained in the new consciousness of the age: a relationship of equality between the universal and the individual.

4. The new consciousness of the age is prepared to realize itself in everything, including external life.

5. Tradition, dogmas and the predominance of the individual stand in the way of this realization.

6. Therefore the founders of the new culture call upon all who believe in reform of art and culture to destroy these obstacles to development, just as in the plastic arts – by doing away with natural form – they have eliminated that which stood in the way of pure artistic expression, the logical conclusion of every artistic concept.

7. The artists of today, all over the world, impelled by one and the same consciousness, have taken part on the spiritual plane in the world war against the domination of individualism, of arbitrariness. They therefore sympathize with all who are fighting spiritually or materially for the formation of an international unity in life, art, and culture.

8. The organ De Stijl, founded for this purpose, seeks to contribute towards
on working along paths previously blocked by the indifference of the public and the professional simple-mindedness of artists.

We do not expect the snob to buy architectural sketches! The snob is looking for a sensation, an effect. We are hoping for those who have a more responsible conception of their relationship to art. Such helpful purchasers, helpful to the cause and thereby to the artist at the same time, will find a deeper, more lasting joy in the architectural sketches than in many sheets of free drawings. For architectural sketches always stimulate anew the imagination that works with them, builds with them, joins its will to theirs.

To a far higher degree than free graphic works, architectural sketches address themselves to the will and thereby fulfill a mission. For we must at all costs escape from the situation in which art lovers are will-less, passive consumers of art.

That the interested public and that the purchasers at our exhibitions are quite different from those who till now have appeared as buyers in the salons is quite certain.

There is nothing small at stake, as Walter Gropius and Bruno Taut have stated here. This exhibition is a first venture. Others are to follow – also by unknown painters – new-style exhibitions that break with the exclusive character of exhibitions up to now.

Adolf Behne

1919 Walter Gropius: Programme of the Staatliches Bauhaus in Weimar

The day on which Gropius took over in Weimar from Henry van de Velde (who had to give up his post in 1914 at the beginning of the war) was also the date of the founding of the Staatliches Bauhaus. The renaming of the school was confirmed on 12 April 1919. The same month Gropius (b. 1883 in Berlin, d. 1969 in Boston, Massachusetts) published the founding manifesto and a detailed programme in the shape of a four-page leaflet. The frontispiece (reproduced on page 51) is a woodcut by Lyonel Feininger.

The ultimate aim of all visual arts is the complete building! To embellish buildings was once the noblest function of the fine arts; they were the indispensable components of great architecture. Today the arts exist in isolation, from which they can be rescued only through the conscious, co-operative effort of all craftsmen. Architects, painters, and sculptors must recognize anew and learn to grasp the composite character of a building both as an entity and in its separate parts. Only then will their work be imbued with the architectural spirit which it has lost as ‘salon art’.

The old schools of art were unable to produce this unity; how could they, since art cannot be taught. They must be merged once more with the workshop. The mere drawing and painting world of the pattern designer and the applied artist must become a world that builds again. When young people who take a joy in artistic creation once more begin their life’s work by learning a trade, then the unproductive ‘artist’ will no longer be condemned to deficient artistry, for their skill will now be preserved for the crafts, in which they will be able to achieve excellence.

For art is not a ‘profession’ but a ‘calling’. If there is any difference between the artisan and the craftsman, it is a technical one. In rare moments of inspiration, transcending the consciousness of his will, the grace of heaven may cause his work to blossom into art. But proficiency in a craft is essential to every artist. Therein lies the prime source of creative imagination. Let us then create a new guild of craftsmen without the class distinctions that raise an arrogant barrier between craftsman and artist! Together let us desire, create, and create the new structure of the future, which will embrace architecture and sculpture and painting in one unity and which will one day rise toward heaven from the hands of a million workers like the crystal symbol of a new faith.

Walter Gropius

Programme of the Staatliches Bauhaus in Weimar

The Staatliches Bauhaus resulted from the merger of the former Grand-Ducal
Saxon Academy of Art with the former Grand-Ducal Saxon School of Arts and Crafts in conjunction with a newly affiliated department of architecture.

Aims of the Bauhaus
The Bauhaus strives to bring together all creative effort into one whole, to reunify all the disciplines of practical art – sculpture, painting, handicrafts, and the crafts – as inseparable components of a new architecture. The ultimate aim of the Bauhaus is the unified work of art – the great structure – in which there is no distinction between monumental and decorative art.

The Bauhaus wants to educate architects, painters, and sculptors of all levels, according to their capabilities, to become competent craftsmen or independent creative artists and to form a working community of leading and future artist-craftsmen. These men of kindred spirit will know how to design buildings harmoniously in their entirety – structure, finishing, ornamentation, and furnishing.

Principles of the Bauhaus
Art rises above all methods; in itself it cannot be taught, but the crafts certainly can be. Architects, painters, and sculptors are craftsmen in the true sense of the word: hence, training in the crafts, acquired in workshops and on experimental and practical sites, is required of all students as the basis for artistic production. Our own workshops are to be gradually built up, and apprenticeship agreements with outside workshops will be concluded.

The school is the servant of the workshop and will one day be absorbed in it. Therefore there will be no teachers or pupils in the Bauhaus but masters, journeymen, and apprentices.

The manner of teaching arises from the character of the workshop:

Organic forms developed from manual skills.
Avoidance of all rigidity; priority of creativity; freedom of individuality, but strict study discipline.
Master and journeyman examinations, according to the Guild Statutes, held before the Council of Masters of the Bauhaus or before outside masters.
Collaboration by the students in the work of the masters.
Securing of commissions, also for students.
Mutual planning of extensive tasks, often public buildings and private works.
Collaboration of all masters and students – architects, painters, sculptors – on these designs with the object of gradually achieving a harmony of all the component elements and parts that make up architecture.
Constant contact with the leaders of the crafts and industries of the country.
Contact with public life, with the people, through exhibitions and other activities.
New research into the nature of the exhibitions, to solve the problem of displaying visual work and sculpture within the framework of architecture. Encouragement of friendly relations between masters and students outside of work; therefore plays, lectures, poetry, music, fancy-dress parties. Establishment of a cheerful ceremonial at these gatherings.

Range of Instruction
Instruction at the Bauhaus includes all practical and scientific areas of creative work.
A. Architecture,
B. Painting,
C. Sculpture
including all branches of the crafts.
Students are trained in a craft (1) as well as in drawing and painting (2) and science and theory (3).

1. Craft training – either in our own, gradually enlarging workshops or in outside workshops to which the student is bound by apprenticeship agreement – includes:
(a) sculptors, stonemasons, stucco workers, woodcarvers, ceramic workers, plaster casters;
(b) blacksmiths, locksmiths, founders, metal turners;
(c) cabinetmakers;
(d) scene-painters, glass painters, mosaic workers, enamellers;
(e) etchers, wood engravers, lithographers, art printers, enchers;
(f) weavers.
Craft training forms the basis of all teaching at the Bauhaus. Every student must learn a craft.

2. Training in drawing and painting includes:
(a) free-hand sketching from memory and imagination;
(b) drawing and painting of heads, life models, and animals;
(c) drawing and painting of landscapes, figures, plants, and still-lifes;
(d) composition;
(e) execution of murals, panel pictures, and religious shrines;
(f) design of ornaments;
(g) lettering;
(h) construction and projection drawing;
(i) design of exteriors, gardens, and interiors;
(j) design of furniture and practical articles.

3. Training in science and theory includes:
(a) art history – not presented in the sense of a history of styles, but rather to further active understanding of historical working methods and techniques;
(b) science of materials;
(c) anatomy – from the living model;
(d) physical and chemical theory of colour;
(e) rational painting methods;
(f) basic concepts of bookkeeping, contract negotiations, personnel;
(g) individual lectures on subjects of general interest in all areas of art and science.

Divisions of Instruction
The training is divided into three courses of instruction:
I. course for apprentices;
II. course for journeymen;
III. course for junior masters.

The instruction of the individual is left to the discretion of each master within the framework of the general programme and the work schedule, which is revised every semester. In order to give the students as versatile and comprehensive a technical and artistic training as possible the work schedule will be so arranged that every architect-, painter-, and sculptor-to-be is able to participate in part of the other courses.

Admission
Any person of good repute, without regard to age or sex, whose previous education is deemed adequate by the Council of Masters will be admitted, as far as space permits. The tuition fee is 180 marks per year (it will gradually disappear entirely with increasing earnings of the Bauhaus). A non-recurring admission fee of 20 marks is also to be paid. Foreign students pay double fees. Address enquiries to the Secretariat of the Staatliches Bauhaus in Weimar.

April 1919.
The Administration of the Staatliches Bauhaus in Weimar:
Walter Gropius
1920 Naum Gabo/Antoine Pevsner: Basic principles of Constructivism

The brothers Gabo and Pevsner, both sculptors, wrote in Moscow in 1920 the Realist Manifesto, in which they laid down the basic principles of Constructivism, which exercised a powerful influence especially on post-war Russian architecture (Tatlin, the brothers Vesnin, Lissitzky). Gabo and Pevsner are concerned with constructions in space, which, however, are interpreted primarily not as architecture, but as sculpture. An important part is played in their conceptions by haptic and optic charms arising out of the combination of various materials in these spatial constructions. These materials are without exception those produced industrially.

1. We reject the closed spatial circumference as the plastic expression of the moulding of space. We assert that space can only be modelled from within outward in its depth, not from without inward through its volume. For what else is absolute space than a unique, coherent, and unlimited depth?

2. We reject the closed mass as an exclusive element for the building up of three-dimensional and architectonic bodies in space. In opposition to it we set the demand that plastic bodies shall be constructed stereometrically.

3. We reject decorative colour as a painterly element in three-dimensional construction. We demand that the concrete material shall be employed as a painterly element.

4. We reject the decorative line. We demand of every line in the work of art that it shall serve solely to define the inner directions of force in the body to be portrayed.

5. We are no longer content with the static elements of form in plastic art. We demand the inclusion of time as a new element and assert that real movement must be employed in plastic art, in order to make possible the use of kinetic rhythms in a way that is not merely illusionistic.

1920 Bruno Taut: Down with seriousness!

In November 1919 the Berlin Arbeitsrat für Kunst was merged with the November Group. But Taut and Behne kept together their architect friends. At their instigation there was an exchange of circular letters, sketches, and essays in the nature of confessions of faith, known as Die Glöserne Kette (The Glass Chain). From January 1920 onward Taut had a new mouthpiece: in every issue of the periodical Stadtbaukunst alter und neuer Zelt (Urban Architecture Ancient and Modern) he had four to six pages to do with as he liked. Taut called this appendix Frühlicht (Daybreak). The text reproduced below occupies the introductory page of this series.

Hopp! Hopp! Hopp! My sweet little horsey!
Hopp! Hopp! Hopp! Where do you want to go?
Over that high wall?
Well really I don’t know!
Hopp! Hopp! Hopp! My sweet little horsey!
Hopp! Hopp! Hopp! Where – do – you – want – to go?
(Scherbart, Katerpoeste)

Away with the sourpusses, the wailing Willies, the sobersides, the brow furrowers, the eternally serious, the sweet-sour ones, the forever important! 'Important! Important!' This damned habit of acting important! Tombstone and cemetery façades in front of junk shops and old clothes stores! Smash the shell-like Doric, Ionic and Corinthian columns, demolish the pinheads! Down with the 'respectability' of sandstone and plate-glass, in fragments with the rubbish of marble and precious wood, to the garbage heap with all that junk!

'Oh, our concepts: space, home, style!' Ugh, how these concepts stink!
Destroy them, put an end to them! Let nothing remain! Chase away their schools, let the professorial wigs fly, we'll play catch with them. Blast, blast! Let the dusty, matted, gummed up world of concepts, ideologies and systems feel our cold north wind! Death to the concept-lic! Death to everything stuffy! Death to everything called title, dignity, authority! Down with everything serious!

Down with all camels that won't go through the eye of a needle, with all worshippers of Mammon and Moloch! 'The worshippers of force must knuckle under to force!' We are sick of their bloodsucking – caterwauling in the early light.

In the distance shines our tomorrow. Hurry, three times hurry for our

kingdom without force! Hurray for the transparent, the clear! Hurray for purity! Hurray for crystal! Hurray and again hurray for the fluid, the graceful, the angular, the sparkling, the flashing, the light — hurray for everlasting architecture!

1920 Le Corbusier: Towards a new architecture: guiding principles

Le Corbusier (b.1887 in La Chaux-de-Fonds, Switzerland, d.1965 in Roquebrune, Cap-Martin, France) was already well known outside France when in 1920-1 his programmatic notes appeared in the periodical L'Esprit Nouveau which in 1923 he published in book form under the title Vers une Architecture. In 1910 Le Corbusier had worked for a few months with Peter Behrens in Berlin, knew the work of the Deutscher Werkbund (which, against van de Velde's protest — see page 28 — was already concerning itself with standardization and the problems of industrialization), had since 1917 travelled all over Europe and was now, from 1920, evolving an aesthetic of mass-production building.

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 today 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 today 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 form-generating and form-defining elements. They create limpid and moving plastic forms.

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 tomorrow, 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.

Aeroplanes
The aeroplane is the product of close selection.
The lesson of the aeroplane 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.

Automobiles
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.

Architecture

The lesson of Rome
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.

The illusion of plans
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.

Pure creation of the mind
Contour and profile 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 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 today 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 (excerpt)

... 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. ...

... 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 today 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 today: architecture or revolution.

1921 Bruno Taut: Frühlicht (Daybreak)

In July 1920 Bruno Taut had to end the first series of his Frühlicht articles. The editor of Stadtbaukunst considered these contributions no longer tolerable. In 1921 Taut went as municipal architect to Magdeburg and from there, from autumn 1921 on, he was able to continue the publication as a quarterly periodical. Once again Taut prefaced the first publication with a piece of expressive, hymn-like prose. But in the ensuing issues it became clear that new ideas and forces were finding expression, new ideas and forces more closely related to reality. And new names: Oud, Mächler, Mies van der Rohe.

HOW DAY WILL EVENTUALLY BREAK – WHO KNOWS? BUT WE CAN FEEL THE MORNING. WE ARE NO LONGER MOONSTRUCK WANDERERS ROAMING DREAMILY IN THE PALE LIGHT OF HISTORY. A COOL EARLY MORNING WIND IS BLOWING AROUND US; HE WHO DOESN'T WANT TO SHIVER MUST STRIDE OUT. AND WE AND ALL THOSE STRIDING WITH US SEE IN THE DISTANCE THE EARLY LIGHT OF THE AWAKENING MORNING! WHERE ARE ALL THE NOCTURNAL SPECTRES! GLASSY AND BRIGHT A NEW WORLD SHINES OUT IN THE EARLY LIGHT, IT IS SENDING OUT ITS FIRST RAYS. A FIRST GLEAM OF JUBILANT DAWN. DECADES, GENERATIONS – AND THE GREAT SUN OF ARCHITECTURE, OF ART IN GENERAL WILL BEGIN ITS VICTORIOUS COURSE. THE IDEA OF THE EARLY LIGHT IS NOT MIRRORED IN THIS SERIES FOR THE FIRST TIME. IT WAS AND IS GOOD TO MAINTAIN OUR VIEW OF THE HORIZON WITH UNDIMMED IMAGINATION. TESTS OF THE REALIZATION OF THE NEW IDEA ALREADY EXIST IN MATERIAL, AND THESE PAGES ARE INTENDED FIRST AND FOREMOST TO SERVE THIS REALIZATION, STARTING FROM THE ACTIVITIES OF A TOWN COUNCIL THAT DELIGHTS IN THE FUTURE. THEY ARE INTENDED TO HELP OUR COMRADES IN GERMANY STRIDE FORWARD MORE JOYFULLY WITH US, AND OUR PATHS WILL MEET THOSE WHO ARE OUR BROTHERS IN SPIRIT BEYOND OUR FRONTIERS. WE DO NOT BELIEVE IN PARALLELS BETWEEN MATERIAL AND SPIRITUAL FLOWERING. THE FULL STOMACH DOES NOT LIKE IDEAS, THE OVERFULL HATES THEM, IT WANTS PEACE. TODAY MORE THAN EVER WE BELIEVE IN OUR WILL, WHICH CREATES FOR US THE ONLY LIFE VALUE, AND THIS VALUE IS: EVERLASTING CHANGE.
Erich Mendelsohn: Dynamics and function (excerpt)

After his exhibition at Cassirer's in 1919 Mendelsohn was invited to contribute to the Amsterdam periodical Wendingen. An issue devoted to his work appeared in October 1920. This brought Mendelsohn into close contact with the group of architects calling themselves Architekten der Moderne in Amsterdam (to whom he delivered the lecture 'Dynamics and Function' in 1923), but he also got to know their opponents, J. J. P. Oud and members of the Rotterdam De Stijl group. As early as 1919 Mendelsohn wrote to his wife: 'The two groups must find their way to one another... Otherwise Rotterdam will construct itself into a cool death, Amsterdam will dynamize itself into the magic of a conflagration... Functional dynamism is the postulate.'

Ever since science has come to realize that the two concepts matter and energy, formerly kept rigidly apart, are merely different states of the same primary element, that in the order of the world nothing takes place without relativity to the cosmos, without relationship to the whole, the engineer has abandoned the mechanical theory of dead matter and has reaffirmed his allegiance to nature. From primal states he deduces the laws determining interactions. His former arrogance has given way to the happy sense of being a creator. The intellectually one-sided inventor has become the intuitive many-sided originator. The machine, till now the pliable tool of lifeless exploitation, has become the constructive element of a new, living organism. We owe its existence neither to the whim of an unknown donor nor to the joy in invention of a constructive genius; its raison d'etre is the exigency of evolution at the stage of our development. Its real task lies in satisfying the multiple mutual interrelationships between population figures and increased production, between industrialization and human consumption; it has to bring order into these interrelationships and master their effects.

Thus it becomes both a symbol of intensified decay and an element in a life that is ordering itself anew.

Now that we have discovered its forces we apparently dominate nature. In reality we merely serve it with new means.

We have apparently freed ourselves from the law of gravity.

In truth we merely comprehend its logic with new senses. The precision of its revolutions, the harsh sound of its course, impel us to fresh clarity, the metallic gleam of its material thrusts us into a fresh light.

A new rhythm is taking possession of the world, a new movement.

Medieval man, amidst the horizontal tranquillity of his contemplative working day, needed the verticals of the cathedrals in order to find his God high above. Modern man, amidst the excited flurry of his fast-moving life, can find equilibrium only in the tension-free horizontal. Only by means of his will to reality can he become master of his unrest, only by moving at maximum speed will he overcome his haste. For the rotating earth stands still! It is unthinkable that mastery of the air, dominion over the natural elements should be given up.

The task is to reduce them to commonplaces of knowledge. The child learns to telephone; numbers have lost their magnitude; distances have been reduced to short walks.

Technology is handicraft. The laboratory is a workplace. The inventor is master.

... Rarely, it seems to me, has the order of the world been so completely revealed before, the cosmic Logos of existence opened wider than in this chaos. For we have all been shaken awake by elemental events; we have had time to shake off prejudices and saddled complacency. As creators ourselves we know how very variously the forces of motion, the play of tensions, work out in individual instances. All the more then, is it our task to oppose excited flurry with contemplation, exaggeration with simplicity, uncertainty with a clear law; to rediscover the elements of energy in the midst of the fragmentation of energy, from the elements of energy to form a new whole. To work, construct, re-calculate the Earth! But form the world that is waiting for you. Form with the dynamics of your blood the functions of its reality, elevate its functions to dynamic supra-sensuality. Simple and certain as the machine, clear and bold as construction. From real presuppositions form art, from mass and light form intangible space. But do not forget that the individual creation can be understood only within the context of the totality of the phenomena of the age. It is just as bound to the relativity of its facts as present and future are to the relativity of history.

historical transformation...
A block of houses is just as much a whole as the individual house. The laws that apply to the individual house also apply to the block of houses and to the city. In place of symmetry the new architecture offers a balanced relationship of unequal parts; that is to say, of parts that differ from each other by virtue of their functional characteristics as regards position, size, proportion and situation. The equality of these parts rests upon the balance of their dissimilarity, not upon their similarity. Furthermore, the new architecture has rendered front, back, right, left, top, and bottom, factors of equal value.

13: In contrast to frontalism, which had its origin in a rigid, static way of life, the new architecture offers the plastic richness of an all-sided development in space and time.

14: Colour. The new architecture has done away with painting as a separate and imaginary expression of harmony, secondarily as representation, primarily as coloured surface.

The new architecture permits colour organically as a direct means of expressing its relationships within space and time. Without colour these relationships are not real, but invisible. The balance of organic relationships acquires visible reality only by means of colour. The modern painter’s task consists in creating with the aid of colour a harmonious whole in the new four-dimensional realm of space-time—not a surface in two dimensions. In a further phase of development colour may also be replaced by a denaturalized material possessing its own specific colour (a problem for the chemist) —but only if practical needs demand this material.

15. The new architecture is anti-decorative. Colour (and this is something the colour-shy must try to grasp) is not a decorative part of architecture, but its organic medium of expression.

16. Architecture as a synthesis of Neo-Plasticism. Building is a part of the new architecture which, by combining together all the arts in their elemental manifestation, discloses their true nature.

A prerequisite is the ability to think in four dimensions—that is to say: the architects of Plasticism, among whom I also number the painters, must construct within the new realm of space and time.

Since the new architecture permits no images (such as paintings or sculptures as separate elements) its purpose of creating a harmonious whole with all essential means is evident from the outset. In this way, every architectural element contributes to the attainment on a practical and logical basis of a maximum of plastic expression, without any disregard of the practical demands.

1924 Ludwig Mies van der Rohe: Industrialized building

In the third edition of G (10 June 1924) Mies van der Rohe, using his own concise style of expression, demanded a fundamental revision of the whole building industry. The demand for economy of materials and constructions, made a year earlier in the first issue of G, was now extended to the whole building process, beginning with the manufacture of new building materials and ending with mere assembly work on the site. For the first time with such unequivocal clarity attention was directed not exclusively to the result—architecture—but also to the prerequisites for industrialized forms of building.

A little while ago the need for an industrialization of the building trade was still contested by almost all interested parties, and I regard it as progress that this question is now seriously discussed by a larger circle, even if few of those concerned are really convinced of this need. The increasing industrialization in all fields would also have spread to the building trade with no regard for outmoded outlooks and emotional values, if special circumstances had not here barred the way. I see in industrialization the central problem of building in our time. If we succeed in carrying out this industrialization, the social, economic, technical, and also artistic problems will be readily solved.

The question of how industrialization is to be introduced is easily answered once we know what stands in the way. The supposition that anticipated forms of organization are the cause is incorrect. They are not the cause but the effect of a situation, and they in no way clash with the character of the old building trade. Repeated attempts have been made to arrive at new forms of organization, but they have succeeded only in those parts of the trade that permitted industrialization. Moreover the extent to which modern building has become a matter of assembly has undoubtedly been exaggerated. Prefabrication has been carried out almost exclusively in the construction of hangars for industry and agriculture, and it was the iron foundries that first prefabricated parts for assembly on the site. Recently timber firms have also begun to prefabricate parts so that building shall be a matter purely of assembly. In almost all other buildings the whole of the main frame and large parts of the interior have been constructed in the same manner since time immemorial and are entirely manual in character. This character can be changed neither by economic forms nor by working methods and it is precisely this which renders small undertakings viable. Naturally material and wages can be saved by the use of larger and different types of building units, as new methods of building show; but even this in no way changes the manual character of building. Moreover it must be borne in mind that the brick wall has incontestable advantages over these new methods of construction.

It is not so much a question of rationalizing existing working methods as of fundamentally remoulding the whole building trade.

So long as we use essentially the same materials, the character of building
will not change, and this character, as I have already mentioned, ultimately
determines the forms taken by the trade. Industrialization of the building
trade is a question of material. Hence the demand for a new building material
is the first prerequisite. Our technology must and will succeed in inventing a
building material that can be manufactured technologically and utilized
industrially, that is solid, weather-resistant, soundproof, and possessed of
good insulating properties. It will have to be a light material whose utilization
does not merely permit but actually invites industrialization. Industrial pro-
duction of all the parts can really be rationalized only in the course of the
manufacturing process, and work on the site will be entirely a matter of
assembly and can be restricted to a far shorter time than was ever thought
possible. This will result in greatly reduced building costs. Moreover the new
trends in architecture will find their true tasks. It is quite clear to me that this
will lead to the total destruction of the building trade in the form in which it
has existed up to now; but whoever regrets that the house of the future can no
longer be constructed by building craftsmen should bear in mind that the
motor-car is no longer built by the wheelwright.

1924  Hermann Finsterlin:
Casa Nova

'Architecture of the Future – Play of Forms and Subtle Construction' was the
subtitle given by Hermann Finsterlin (b. 1887 in Munich, lives in Stuttgart) to
his essay which took up the whole March 1924 issue of the Amsterdam
periodical Wendingen. His architectural fantasies had already aroused
considerable interest in 1919, when Gropius invited Finsterlin to take part in
his Exhibition for Unknown Architects (p.46). Bruno Taut printed two longish
contributions by him in Frühlicht in 1920–1. The relatively late publication in
Wendingen – in terms of the general trend – shows that the Architeccta et
Amicitia group was still asserting its viewpoint (knowledge through vision)
against De Stijl in 1924.

Awake! Awake from the compulsive sleep into which you children of Adam
have been plunged by the unripe fruit of the world tree and pluck your divine
happiness, now never to be lost again, from its infinite branches: the know-
ledge of the primal meaning of all being – ‘development’. Life is the un-
conscious answer to stimuli, experience is human existence. The value of a life
follows from the sum of the creature’s experience in Creation; therefore the
duration of a life and the course it takes are not matters of indifference.
Adjust your sieve to the measure of your highest will, so that all inadequacies
and compromises filter through it; they are not worth retaining. Do not give
preference to line and surface, which make you conscious of the corporeal;
this is ingratitude towards the heritage of the creature. Do not beat the drum
where the bellows of a gigantic organ await you; do not imitate – that which
has once existed has no need of repetitions, they are always feebly degenerate
and merely a waste of your time. Cease to invent, it merely robs you of your
eyes. Why do you strive to broaden your senses? The mania for discovery is
merely poverty of imagination and creative power. There is nothing beyond
your outward senses that you could not create with your inmost primal sense,
that miniature version of the cosmos, the mightiest wonder of human exist-
ence. Discover this philosophers’ stone that renders you all-powerful like the
world spirit.

The apparent basic difference between things lies only in you and in your
temporal and spatial distances from them, only in the measurement of time
arising out of your organic mechanism. This alone creates the antitheses of
space and time, matter and energy, rest and motion, life and death. Push on
to the centre point of the world and you will find yourselves again, in changed
shape, at the root of the world tree, in whose sap appearance and being flow
into one.

Everything has form – is form:
Radiations, scents, sounds, and the most mysterious sensations of the soul.
Form is only a relatively over-rapid, uninterrupted system of forces flowing
The new man's provisional dwellings both in space and on Earth must be adapted to the aeroplane. A house built in this way will still be habitable tomorrow. Hence we Suprematists propose the objectless planets as a basis for the common creation of our existence. We Suprematists will seek allies for the struggle against outmoded forms of architecture.

If the Leningrad of the future were built in the style of the American skyscraper cities, then the life style and the thinking of its inhabitants would also correspond to the Americans. Yet among ourselves ever greater efforts are being made to squeeze present-day existence into an antique mould.

The forms of classical antiquity, they say, are important, and only idiots could fail to recognize their value for the proletariat. But where then is the aeroplane, or even merely the motor-car, to be housed? How can modern technology be expressed in antique forms?

We Suprematists therefore accept the fate of being considered idiots and dispute the necessity of antique forms for our time. We emphatically refuse to be pressed into antique moulds.

We don't want to be firemen whose legs are clad in modern trousers, but whose heads are in the helmets of Roman legionaries; we don't want to be like those Negroes upon whom English culture bestowed the umbrella and the top hat, and we don't want our wives to run around naked like savages in the garb of Venus!

We recognize the grandeur of classical art. We don't deny that it was great for its time.

Nor do we dispute that the proletariat must get to know classical antiquity and acquire the right attitude to it. But we dispute very emphatically that classical antiquity is still fitted to our modern world.

Every new idea demands the new form appropriate to it.

Therefore we refuse to recognize classical temples, which were adequate both for the pagans and for the Christians, as now suitable for club houses or a 'House of Culture' for the proletariat, even if these temples are called after the leaders of the Revolution and decorated with their pictures!

We want to create new relationships to the content of today, relationships that do not move on the plane of classical antiquity, but on the plane of the present, of today!

We regard the form of aestheticizing representational painting as finished. Suprematism has shifted the emphasis of its activity to the architectural front and calls upon all revolutionary architects to join it.

1925
Le Corbusier:
Guiding principles of town planning

Le Corbusier's fundamental essay on town planning (Urbanisme) appeared in the Collection de l'Esprit Nouveau in 1925. Once again — as in Vers une Architecture — there is a programmatic statement; once again the individual chapters are prefaced by guiding principles. The sensational Plan Volaire for Paris, for a city of the present with three million inhabitants, had been in existence since 1922. It had never ceased to preoccupy town planners since its appearance. Now Le Corbusier drew conceptual consequences, linking axioms with events of the day in his own enthusiastic manner. 'I felt very clearly that events were pressing, 1922-5 — how fast everything moved!'

If it yearns after primordial truths, the spirit destroys itself;
if it wed's the earth it thrives.
Max Jacob (Philosophies, No.1, 1924)

The town is a working tool.
Towns do not normally fulfil this function. They are inefficient: they wear out the body, they frustrate the mind.
The increasing disorder in our towns is offensive: their decay damages our self-esteem and injures our dignity.
They are not worthy of the age. They are no longer worthy of us.

A town!
It is an assault by man upon nature. It is a human action against nature, a human organism designed for shelter and work. It is a creation.
Poetry is a human act — concerted interrelationships between perceptible images. To be exact, the poetry of nature is nothing but a construction of the human spirit. The town is a powerful image that activates our spirit. Why should not the town, even today, be a source of poetry?

Geometry is the means with which we have provided ourselves for looking around us and expressing ourselves.
Geometry is the basis.
It is also the material foundation for symbols signifying perfection, the divine.
It brings us the lofty satisfaction of mathematics.
The machine develops out of geometry. Thus the whole of the modern age is made up above all of geometry; it directs its dreams towards the joys of geometry. After a century of analysis, modern arts and thought are seeking something beyond the random fact and geometry leads them towards a mathematical order, an attitude of mind that is increasingly widespread.
The house poses the problem of architecture afresh by calling for totally new means of realization, an entirely new ground-plan adapted to a new way of life, an aesthetic arising out of a new frame of mind. There comes a time when a collective passion stirs an epoch (the Pan-Germanism of 1900–20, or the charity of the first Christians, etc.)

This passion animates actions, gives them a strong tinge and a direction.

Today this passion is the passion for precision. Precision carried a very long way and elevated to the status of an ideal: the striving for perfection.

It is no good being defeatist if one is striving after precision. This requires stubborn courage and strength of character. Our era is no longer one of relaxation and slackness. It is powerfully tensed for action. Whatever one does, it is no good being defeatist (or foolish or disenchanted). We must believe; we must reach down to the good in the depths of people.

It is no good being defeatist if we are going to dream of modern town planning, because this involves overturning many accepted ideas. But today we may dream of carrying out modern town planning, because the time has come and a collective passion has been unleashed by the most brutal necessity and by a lofty feeling for truth. The awakened spirit is already reconstructing the social framework.

It seems that a series of experiments are pointing to the solution and that hypothetical concepts are strongly rooted in statistical truths. A time is coming when a collective passion will be capable of stirring an epoch.

Last year I was working on this book in the vacuum of a Paris summer. This temporary slackening of the life of the great city, this calm, finally began to make me feel that I was allowing myself to be carried away by the magnitude of the subject, carried beyond the reality.

Came 1 October. At dusk, at six o’clock on the Champs-Elysées, everything suddenly went mad. After the vacuum, the traffic furiously started up again. Then each day increased this turmoil further. You go out and the moment you are out of the door, with no transition, you are confronting death: the cars are racing past. Twenty years ago I was a student. In those days the roadway belonged to us; we sang in it, we argued... the horse bus rolled gently past.

That 1 October 1924, on the Champs-Elysées, we watched the event, the titanic rebirth of this new thing whose vigour had been broken by three months of holidays: the traffic. Cars, cars, speed, speed! One is carried away, seized by enthusiasm, by joy. Not by enthusiasm at seeing the shiny bodywork glistening in the light of the headlamps. But enthusiasm over the joy of power. The frank, ingenious enjoyment of being at the centre of power, of energy. We share in this power. We are part of this society whose dawn is breaking. We have confidence in this new society, confidence that it will find the magnificent expression of its energy. We believe in it.

Its energy is like a torrent swollen by storms: a destructive fury. The town is breaking in pieces, the town cannot last, the town is no good any longer. The town is too old. The torrent has no bed. Then there is a kind of cataclysm.

It is something absolutely abnormal: the balance is upset more and more each day.

Now the danger is felt by everyone. Let us note in passing that in a few years the joy of living has already been forgotten (the good, centuries-old joy of strolling tranquilly along on one’s legs); we are caught up in the attitude of a hunted animal, in a daily fight for life; the sign has changed; the normality of existence has been destroyed, has become marked by the negative sign.

Timid remedies are put forward... You know the childish ardour with which the inhabitants of a village erect improvised barriers, in haste and terror, to hold back the torrent that has swollen under the effects of the storm and is already rolling along destruction in its furiously swirling waters...

Fifteen years ago, in the course of long journeys, I measured the omnipotent force of architecture, but I had to pass through difficult stages in order to find the necessary environment. Architecture submerged beneath a deluge of disconnected heritages attracted the spirit only via a difficult detour and stirred the emotions only weakly. By contrast, an architecture firmly rooted in its environment gave rise to a delightful sense of harmony and stirred one deeply. Confronted by the facts and far from all text-books, I felt the presence of an essential factor, town planning, an expression unknown to me at the time.

I was entirely devoted to art.

There was a time when the reading of Camillo Sitte, the Viennese, insidiously won me over to the picturesque view of the city. Sitte’s arguments were skilful, his theories seemed correct; they were based on the past. In fact, they were the past – and the miniature past, the sentimental past, the rather insignificant little flower by the roadside. This was not the past of apocryph; it was the past of compromises. Sitte’s eloquence went well with this touching renaissance of the ‘home’ which, in a paradox worthy of the cottage, was destined grotesquely to divert architecture from its proper path (‘regionalism’).

In 1922, when I was commissioned by the Salon d’Automne to design the diorama of a city of three million inhabitants, I entrusted myself to the sure paths of reason and having digested the lyricism of days gone by, I had the feeling that I was in harmony with that of our own day, which I love.

My close friends, surprised to see me deliberately overstep immediate possibilities, said to me: ‘Are you designing for the year 2000?’ Everywhere journalists wrote of ‘the city of the future’. And yet I had named this work ‘A Contemporary City’ – contemporary, because tomorrow belongs to no one.

I felt very clearly that events were pressing. 1922–5, how fast everything moved!

1925: the International Exhibition of Decorative Arts in Paris finally demonstrated the pointlessness of backward glances. There was to be a complete revulsion; a new page was turned.

1 This is precisely true; we risk our lives at every step. Suppose your foot slips, or a fainting fit causes you to stumble... 
2 Der Süddeutsche.
It is generally agreed that 'sublime' futilities are followed by serious works. Decorative art is dead. Modern town planning is born with a new architecture. An immense, devastating, brutal evolution has burned the bridges that link us with the past.

Recently, a young Viennese architect—terribly disillusioned—admitted that old Europe was on the verge of dying, that young America alone could nourish our hopes.

'No architectural problem any longer confronts us in Europe,' he said. 'Up to this day we have dragged ourselves along on our knees, weighed down, crushed by the tangled burden of successive cultures. The Renaissance, then the two Louis have exhausted us. We are too rich; we are surfeited; we no longer possess the virginity that can give rise to an architecture.'

'The problem of architecture in old Europe,' I replied to him, 'is the big modern city. It is a matter of Yes or No, of life or slow extinction. One or the other, but it will be the former if we wish. And precisely the past cultures that weigh us down will afford us the pure, distilled solution, passed through all the sieves of reason and the sensibility of an elite.'

Faced with the 1922 diorama the director of the New York Broom said to me: 'In two hundred years Americans will come and admire the rational works of modern France and the French will go to be amazed by the romantic sky-scrappers of New York.'

Summary:

Between believing and not believing, it is better to believe.
Between acting and disintegrating, it is better to act.
To be young and full of health means to be able to produce a great deal, but it takes years of experience to be able to produce well.
To be nourished by earlier civilizations enables us to dissipate obscurity and bring a clear judgement to bear on things. It is defeatist to say that once one has left one's student days behind one is nothing but a has-been. They decide that we are old? Old? The twentieth century in Europe may be the fine maturity of a civilization. Old Europe is not old at all. Those are just words. Old Europe is full of vigour. Our spirit, nourished by centuries, is alert and inventive. Europe's strength is in her head, whereas America has strong arms and the noble sentimentality of adolescence. If in America they produce and feel, in Europe we think.

There is no reason to bury old Europe.

Man strides straight ahead because he has a goal. He knows where he is going; he has decided in favour of a particular direction and is striding straight towards it.

The set square is the necessary and sufficient tool for action, because it serves to determine space with absolute unambiguity.

A flood of action which leaves purposes way behind it, taking shape according to the special capacities of the peoples, stirs the emotions and comes to dominate developments; it issues orders; it firmly establishes behaviour and gives events their deeper significance.

At first this flood of action disappoints; but on closer consideration it encourages and arouses confidence. The great works of industry do not call for greatness.

Let us take care that the enemy of joy—despair—does not slip in unnoticed. Despair over cities. Despair engendered by cities.

A Turkish proverb: Where you build, there you plant trees.
In our case we cut them down.
And what about motor cars?
So much the better, replied the great acolyte, they won't be able to drive any more.

Statistics show the past and sketch the future; they furnish figures and give the direction of curves.
Statistics serve the purpose of setting problems.

The machine gives our dreams their audacity: they can be realized.

We need a guideline. We need basic principles for modern town planning. We need to advance through the construction of a theoretical edifice of the utmost stringency to the formulation of the basic principles for modern town planning.

The city of speed is the city of success.

On 9 May 1925 half the chestnut trees along the Avenue des Champs-Elysées had black leaves; the buds could not unfold; the tiny, crippled leaves curled up like the bent fingers of a hand . . .

It is assumed that the third generation to live in a big city will be sterile.

At the present moment, vast masses of dilapidated houses are being demolished at strategically important points in Paris and replaced by multi-storey buildings.

This is being allowed to happen. A new city is being permitted to spring up over the old city that murdered life, and this new city will murder life all the more inadmissibly because it forms positive knots of stasis, without in any way modifying the street-plan.

These fruitless operations on the land in the centre of Paris are like a cancer that is being allowed to overgrow the heart of the city. The cancer will stifle the city. Simply to let things happen here represents an incomprehensible unconcern in the hour of danger, through which big cities are at present passing.
'They are drawing straight lines, filling in holes, levelling off and coming to Nihilism . . .' (sic!) (Furious outburst by the great town planner presiding over a commission for city extension plans.)

I replied: 'I beg your pardon, but that, correctly speaking, is man's task.' (Authentic incident.) Extract from the documents *Cacophony*.

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1926 Walter Gropius: Principles of Bauhaus production [Dessau] (excerpt)

In September 1922 Feininger asked in Weimar: 'Why and how this voluntary submission to the tyranny of van Doesburg and the complete recalcitrance towards all measures originating from the Bauhaus?' He meant by this the effects of the 'rival courses' given by van Doesburg in Weimar. 'If Doesburg were a teacher at the Bauhaus he would be . . . rather useful to the whole enterprise. The fascination of De Stijl ideas not only captured the students, but also influenced the Bauhaus teachers. As early as 1923 (in a letter of 5 October) Feininger noted how Gropius's attitude to handicrafts and industrial products was changing. In 1925, with the transfer to Dessau, this process was complete.

The Bauhaus wants to serve in the development of present-day housing, from the simplest household appliances to the finished dwelling.

In the conviction that household appliances and furnishings must be rationally related to each other, the Bauhaus is seeking - by systematic practical and theoretical research in the formal, technical and economic fields - to derive the design of an object from its natural functions and relationships.

Modern man, who no longer dresses in historical garments but wears modern clothes, also needs a modern home appropriate to him and his time, equipped with all the modern devices of daily use.

An object is defined by its nature. In order, then, to design it to function correctly - a container, a chair, or a house - one must first of all study its nature; for it must serve its purpose perfectly, that is, it must fulfill its function usefully, be durable, economical and 'beautiful'. This research into the nature of objects leads to the conclusion that by resolute consideration of modern production methods, constructions, and materials, forms will evolve that are often unusual and surprising, since they deviate from the conventional (consider, for example, the changes in the design of heating and lighting fixtures).

It is only through constant contact with newly evolving techniques, with the discovery of new materials and with new ways of putting things together, that the creative individual can learn to bring the design of objects into a living relationship with tradition and from that point to develop a new attitude toward design, which is:

- a resolute affirmation of the living environment of machines and vehicles;
- the organic design of things based on their own present-day laws, without romantic gloss and wasteful frivolity;
- the limitation to characteristic, primary forms and colours, readily accessible to everyone;
- simplicity in multiplicity, economical utilization of space, material, time, and money.
1. Reform of property rights in building land and air space with a view to achieving easier interchange. Introduction of a system of stratified utilization of air space by the inhabitants.
2. Constructions should be variable and interchangeable.
3. The spatial units produced by these constructions should likewise be alterable and interchangeable in their use.
4. The inhabitants must be given the opportunity to adapt their dwellings themselves to the needs of the moment.
5. Industry and prefabrication must be utilized to the full in the manufacture of the constructions as a means of lowering prices.
6. Town and town planning must be capable of adaptation to the development of traffic.
7. Residential and work places, as well as areas for physical and spiritual culture, must be intermingled throughout the individual sections of the city.

D. In order to put the aforementioned principles into practice, GEAM proposes elaboration of the following techniques:

1. Development of variable and interchangeable elements of construction, as for example:
   a. exterior walls,
   b. interior walls,
   c. movable floors and ceilings.
2. Development of easily altered means of supplying buildings with power and water and the disposal of garbage.
3. Development of larger town-creating spatial units, such as:
   a. interchangeable containers (travelling, flying, floating),
   b. buildings on rafts,
   c. buildings bridging over spaces,
   d. air-conditioned open spaces.

Paris, 5 April 1960
David George Emmerich, Camille Frieden, Yona Friedman, Günter Günschel, Jean Pierre Pecquet, Werner Ruhnau

As a supplement to the 1960 programme, the statement of March 1961 reads:
An optimal distribution of elements in town planning is made possible by the mobility of component parts. This will lead to the reintegration of those functions that have become divided. Multifunctionality of the urban organism will relieve the problems of communication. This principle will render the problem of static form outmoded. Structures and regulations regarding use must be planned.

1960 Louis I. Kahn:
Order is

At the end of the fifties there began in the United States a slow process of replacement. The great German architects of the interwar years, the influential teachers of architecture in America in the thirties and forties – Breuer, Gropius, Hilberseimer, Mies van der Rohe, Moholy-Nagy, Wachsmann, Wagner – if they were still alive, gradually retired from their teaching posts. Younger men took their place. The architectural departments of the less well-known universities began to attract attention. Louis I. Kahn (b. 1901 on the island of Osel, Estonia) taught at Yale and the University of Pennsylvania. He told his students: 'A good question is greater than the most brilliant answer.'

Design is form-making in order
Form emerges out of a system of construction
Growth is a construction
In order is creative force
In design is the means – where with what when with how much
The nature of space reflects what it wants to be
Is the auditorium a Stradivarius or an ear
Is the auditorium a creative instrument
keyed to Bach or Bartók
played by the conductor
or is it a conventional hall
In the nature of space is the spirit and the will to exist a certain way
Design must closely follow that will
Therefore a stripe-painted horse is not a zebra
Before a railroad station is a building
it wants to be a street
it grows out of the needs of street
out of the order of movement
A meeting of contours englazed.

Through the nature – why
Through the order – what
Through design – how
A form emerges from the structural elements inherent in the form.
A dome is not conceived when questions arise how to build it.
Nervi grows an arch
Fuller grows a dome

Mozart’s compositions are designs
They are exercises of order – intuitive
Design encourages more designs
Designs derive their imagery from order
Imagery is the memory – the form
Style is an adopted order
The same order created the elephant and created man
They are different designs
Begun from different aspirations
Shaped from different circumstances
Order does not imply Beauty
The same order created the dwarf and Adonis
Design is not making Beauty
Beauty emerges from selection
affinities
integration
love
Art is a form-making life in order – psychic
Order is intangible
It is a level of creative consciousness
forever becoming higher in level
The higher the order the more diversity in design
Order supports integration
From what the space wants to be the unfamiliar may be revealed to the architect.
From order he will derive creative force and power of self-criticism to give form to this unfamiliar.
Beauty will evolve.

1960 Werner Ruhnau/Yves Klein:
Project for an aerial architecture

In 1923 G demanded: ‘Economy. Pure relationship of strength and material.’
In forty years the demand had lost none of its fascination. Bruno Taut’s phrase concerning the ‘light point’ that had to be found was topical as never before.
Buckminster Fuller asked: What does a building weigh? Lightweight structures were conquering a still limitless field. Fluid and gaseous materials were used in construction. A new sensibility was developing. The architect Werner Ruhnau (b. 1922 in Königsberg) and the painter Yves Klein (Le Monochrome) wanted to found a ‘school of sensibility’. ZERO proclaimed: ‘We live, we are for everything’. Ruhnau and Klein were for a life in aerial architecture.

‘In our minds aerial architecture was always merely a stage that is proposed today for the air-conditioning of privileged geographical spaces.’

We propose protecting a city by a roof of moving air. A central motorway leads to the airport, dividing the city in two: a residential quarter and a quarter for work, industry and mechanical devices. The roof of air simultaneously air-conditions and protects the privileged space.

A floor of transparent glass. Storage underground (kitchens, bathrooms, store-rooms and production plant).

The concept of secrecy, which is still known to us, will have vanished from this city flooded with light and completely open to the outside world. A new condition of human intimacy will exist. The inhabitants live naked. The former patriarchal family system will no longer exist. The community will be complete, free, individual, impersonal. The inhabitants’ main occupation: leisure.

The obstacles that used to be regarded in architecture as troublesome necessities will have become luxuries: fire-walls, water-walls, forms carried by the air, fire-fountains, water-fountains, swimming baths, air beds, air seats . . .
The real goal of immaterial architecture: the air-conditioning of large geographical dwelling areas.

This air-conditioning will be achieved not so much through technological miracles as essentially through a transformation of human sensibility into a function of the cosmos. The theory of ‘immateralization’ negates the spirit of fictitious science.

Through evolved sensibility, ‘a new dimension, guided by the spirit’, the climate and the spiritual conditions on the surfaces of our earth will in future be transformed.

‘To want means to invent.’ To this wanting is added the will to live what one has invented, and the miracle will be accomplished in all the realms of nature. Ben-Gurion: ‘He who does not believe in miracles is not a realist.’