Statement of Architectural Principles

The principles set forth below are intended to clarify briefly what the prerequisites of Modern Architecture are and what is essential to it. They are not procedural formulas but the expression of a fundamental outlook.

Summary

Prerequisites of Architecture

Architecture has an essential prerequisite: that something is built which serves a human purpose. This prerequisite constitutes the underlying basis of all architecture; without it there is no architecture, but it alone does not suffice to create a work of architecture.

The term "Architecture"

The term "Architecture" includes more than merely the individual building; it also comprises the planning of entire building areas, the interrelationships of structural elements and buildings and the relationships of buildings to streets and roads, urban neighbourhoods and outlying residential districts.

Unity of function, construction and form

The form of a building has to accord with its function and manner of construction. The ordinary definition of functionalism, however, is inadequate: form is not determined by function alone — form can lead just as well to new kinds of usage and construction. Every epoch must, on the basis of the altered circumstances confronting it, discover anew the unity of design, function and construction.

Construction

Construction is an essential factor in architecture and can not be dismissed as something to be carried out as a routine matter of course. The science of construction—like technology in general—is not in every case immediately accessible to the reason; when it is applied, not only is the reason involved but at the same time the feelings as well. The process of construction, however, is to be kept under control of consciousness as far as possible.

Variety and Simplicity

We possess more technical possibilities than all former architects combined. The variety of the means at our disposal increases the number of possibilities, but jeopardizes the unity of the building. For this reason it is necessary to restrict oneself to the simple, but with these simple elements to create a wealth of effects serving man in manifold ways.

As distinguished from Sculpture

Architecture is to be distinguished sharply from sculpture, even from sculptural structures serving some utilitarian purpose. Whereas architecture rests on consistent laws of construction, sculpture is free from any such prerequisite.

As distinguished from past styles I

Modern Architecture is distinguished from earlier works of architecture mainly by its different conception of space. This space, characterized by the term "spatial field," is not closed but flows without constraint outwards, inwards, upwards and downwards. It is delimited by other spatial quanta. The new conception of space, however, does not exclude the closed space.

As distinguished from past styles II

It is not in keeping with the inmost essence of Architecture when styles of former periods are taken over and used in the present, because the principles of design at a given time are related to a specific stage of development in construction engineering and to a very particular way of coming to terms with the environment.

Architecture as Service to Man

Architecture is a service to man. The design of a building always reflects man himself, his way of life and his relations to his environment.

Vital Architecture

Architecture—regarded as service to man—remains truly vital on the sole condition that it never fails to come to grips with the fundamental character of each new challenge confronting it and when it allows the design of each new building to proceed naturally from the exigencies imposed by the nature of the means employed. Any enrichment and formal differentiation are only authentic when they remain related to the fundamental character of the project in question. A one-sided approach to problems of design and proportion leads to rigidity and to formalism.

Mission

The highest mission of Modern Architecture consists in the creation of spatial fields which aid e a c h individual in the meaningful shaping and direction of his life: "active" fields, when stimulation is demanded, "passive" fields, when the free unfolding of the individual's latent capacities would otherwise be inhibited.

Responsibility

Modern Architecture does not rest on any binding convention governing problems of design but on an inner responsibility to assist in some measure in the fashioning of an intelligent existence which is worthy of the dignity of man.

Jürgen Joedicke

Towards a living architecture . . .

(pages 303—304)

Modern architecture* as a living form of the art of building cannot be regulated by any kind of formal canon; its constancy and unity rest on the inner bearing of those who feel under an obligation towards it.

At the beginning of its development there was the protest against the housing of millions of men that denied them their human rights and the accusation that the architecture of the nineteenth century had completely ignored the social responsibility laid upon it. Modern architecture replaces stereotypes and patterns, styles and categories of design, by a method of design that once again brings the activity of the architect back to that sole point from where the urgent problems of contemporary life may be solved: it states that social requirements, materials and construction, purpose and use, must constitute the point of departure for any plan. Thanks to the introduction of functionalism it was possible to open up a way through the circulation of stylistic imitations.

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* The expression "modern architecture" is self-contradictory, as "modern" in the true meaning of the word can only refer to the present for its exemplification and not to events of twenty years ago. This concept, however, has become a distinctive label for the movement ever since Otto Wagner employed it as a title for a book in 1896. We are compelled to use it until a better term is generally accepted.

The idea of functionalism has been interpreted in varying ways. The literal exposition of Sullivan's formula that design is a consequence of function is misleading and can advance the claims of a materialistic view of architecture, for function, like construction, is by no means a fixed concept with a content that has to be accurately defined. The view taken of function changes in the course of time. The relationship between function and form, therefore, can only be a reciprocal one: formal ideas influence those about function just as much as function influences design. Functionalism says, for this reason, no more than that in the completed building form and function must cohere. Saying this shows up clearly that though functionalism is a method of design, it can in no wise be anchored to a specific category of design, for varying forms are conceivable that give evidence of the coherence of design.

Functionalism has been misunderstood in yet another way. Very often only the quantitatively measurable factors are taken to mean function—rather than the form that the arrangement of furniture in a kitchen is determined on the basis of the minimum expenditure of energy on the part of the housewife. Such considerations are necessary and useful but do not exhaust the idea of functionalism. Function comprises the whole totality of factors specifically entailed by a role. It is only possible to speak of a functional view of architecture when design is exposed to the stimulus of such a penetrating study of function.

Certain phenomena in contemporary architecture cannot be aligned with those fashionable forms of design that could always be met with. On the contrary, their roots are to be found in the endeavours that modern architecture as such questions in general. At the present time we are confronted by a profound crisis in modern architecture itself. The end of modern architecture has already been predicted in the U.S.A. The fact that such statements do not come from outsiders or conservatively minded architects but rather from those who up to now have been called notable representatives of modern architecture shows how critical the position is.

Two questions are most pressing: what causes have favoured this development; what arguments are brought to bear to support these claims? The first of these two questions can only be answered when the current situation is viewed in relation to the past.

The law of differentiation and expansion operative in every form of development has led to an extension of methods and design from the initial purist phase of the twenties onwards. The present position of this development can, perhaps, be characterized with the term "total expansion of design;" the modern architecture of today makes use of every possibility and means, it is no longer bound—as was the case in the twenties, for example—to the primacy of certain overruling images. However, the plenitude of openings is confusing; the necessary and justified search for an extension of the vocabulary of design leads to a quest for novelty at any price. The often thoughtless hunting down of what is new, however, often leaves the natural feeling for quality and authenticity out of consideration. If the design of a building is cut off from its constituent factors, a narrowing down of all problems to those which are purely concerned with proportion and shape comes about, and this endangers the stability of architecture. Instead of a living art of building there emerges an architecture that is academic and hampered with rules: this is the first danger to which modern architecture is exposed today.

Certain aims are supported by ideas that have become well-known and which at first sound perfectly reasonable. They argue that the purist simplicity of the earlier period must be overcome. What is required is an architecture that pays more attention than hitherto to human emotions. Such theoretical demands deserve nothing but support; error creeps in, however, as soon as this expansion and differentiation is sought from the outside, from the form, and not from the inner complex.

These claims are advanced on the basis of a different attitude to history. In the initial phase of modern architecture any form of connection with the past was rejected. Futurism urged the suppression of all the artistic monuments of past ages. This attitude was to be understood as a protest. There is no doubt that the consolidation of modern architecture has furthered the change of views apparent at the present time. The architectural designs of the past are recognized today in their true significance and the relations they bear to the present are underlined. So long as the past serves to confirm our own intentions and so long as the aims of our period are recognized, there is no danger of misjudgement and eclectic imitation.

Such a position, however, presupposes confidence in one's own strength; but

since the attachment to history often comes about as a result of doubt in the rectitude of previous methods and design principles and pairs up with the fateful search for novelty, the inevitable result must be a direct or indirect form of eclecticism. The proposition of Einstein about the wealth of means and the lack of clarity of the ends desired applies to architecture too.

The wealth of means and the basic concept of eclecticism inherent in our period leads to the employment of that design which is palpable: the resulting borrowing calls upon both history and definite phases of modern architecture's own development (e.g., 'art nouveau,' expressionism, etc.). The inevitable consequence is a Witches' Sabbath of shapes, subjective excesses, lacking all coherence. Freedom is replaced by the arbitrary: this, along with academic rigidity, is the other danger that threatens modern architecture in our day and age.

It seems necessary to recall yet again that architecture is a form of spatial art. The formation of space for a specific role and the moulding of its limits should be the first concern of every architect. Instead of this we think in terms of level planes: the ground-plan—the horizontal plane—structured according to various functions; the elevation—the vertical plane—structured according to proportion or the module. Space is then what is left over between these planes. If functionalism has to be complemented by means of other methods, it seems of primary importance to deal with the nature and the elements of space. From the point of view of the critic of architecture, the question "What is modern architecture?" is to be answerd in terms of spatial design. This is the decisive criterion for modern architecture (cf. Franz Füeg: What is modern in architecture. Bauen + Wohnen No. 1, 1958, p. 31).

The present situation cries out for personal decisions; it is no longer possible to withdraw gracefully by having recourse to generally held statements of opinion. At the beginning of this article the assertion was made that modern architecture was founded on an inner sentiment and not on a canon of design. The bases of this sentiment must be specified; they are: modesty, reason and humanity. There is no recipe with which the problems of our time can be mastered; but a path that seems to be open is where the striving is towards the greatest spatial richness achieved with the utmost simplicity of individual features and where design remains related to use and function and to materials and construction.

The opinion is often voiced that where architecture is linked to function the point of departure for the act of designing must be situated within the function itself. With certain specific buildings (e.g., industrial premises) this is possible, but it is hardly ever the case as a standard rule. The question whether function or spatial form is to constitute the initial point for design does not impinge in any way on the essential features of a functional view of architecture. The essence is not to be found in that element that ignites creative intuition; the vital point is that the influences exerted by all the factors in their mutual relationship must be pursued until an indivisible unity is attained. In other words: that idea of space and design most present at first must be scrutinized with an eye to the correctness of its functionality; this scrutiny will give rise to certain modifications to the design that in their turn will not fail to have an influence on the articulation of function. Knowledge and experience can shorten the repetitive progress of this procedure, but in principle it should always take its course in such a way.

The necessity of methodical revision of design is apparent to anyone who is concerned with the training of young architects. Rules and recipes hinder the creative development of the student, who will be nothing but the follower of his mentor. The communication of design methods, however, furthers the creative development of the individual. What is correct within the restricted boundaries of a school also seems to apply in general to the contemporary situation. Modern architecture will only be creative and remain a truly living art of building as long as it seeks its basic principles in rules that govern methods but not that which is external.

Franz Füeg

Limits and degrees of architecture

(pages 306—312)

Subject

Perhaps it is paradoxical to wish to talk of "limits" at a time of "limitless possibilities." Nevertheless the diversity of techniques, theories and hypotheses is such that the question of limits does not seem an idle one to us. Quite the contrary, these problems concern architecture very closely.

There are many small-scale constructions that bear generally the name of architecture. This building is unpretentious and is only to be distinguished from other architectural creations by its quality.

Similarly the chapels of Le Corbusier and Mies van der Rohe are "architecture." It it not apparent that such comparisons demand an explanation of the "limits and degrees" of the art of construction?

However, our subject can only bear fruit if we distinguish "architecture" as thought of by the historian from the architect's idea of it. In so far as we are concerned, we shall deal here with the latter alone. In consequence we shall narrow down our question in the following way: "What are the limits of the creator, the architect?"

It is important to be perfectly clear about this restriction. In effect, the historian sees only the finished work. The actual creation of the work in its different stages scarcely interests him. The historian is, and remains, an observer; moreover, basically he addresses himself to observers. Neither aesthetics nor the history of art are developed for the creater. Our subject will therefore be "the limits of the architect and his work."

Architecture only appears in the "construct"

Functions and construction are the prerequisites of any building. This is not to say that they are sufficient to produce an "architectural work." We thus obtain the first limit. Obviously enough, the functionalists who claim that creation itself is "constructed" will not agree with us and will not suspect that there is any limit at this point. Nevertheless, functionalism cannot be rejected in so far as it is a work method. Treating construction solely as a condition and not as a means we remove one of the foundations of architecture. Architecture only appears in the "construct," and construction means: putting together piece by piece according to the rules holding for the materials and their static behaviour; construction means allotting the quality and quantity of materials and this purely for constructive reasons.

Of course, there are no absolutely objective criteria as regards the choice of materials. The architect can—at least theoretically—freely choose a construction principle, but once this choice has been made the materials will impose a highly specific procedure on him. Then, as we learn from the constructivists, the elements of architectural composition stem from pure logic. Yet, nevertheless, this form of logical determinism breaks down sooner or later; there is not always just one solution that is incumbent upon us. In addition, the architect often explains the logic of his choice after the event—these are realities that the constructivists do not wish to admit.

Techné

What, therefore, are the inherent conditions of architecture? Architecture is always constructed and always serves—directly or indirectly—the human species; it satisfies physical and psychological needs.

The building that merely expresses an idea is not architecture; it is a monument or statue. The limit between architecture and sculpture, though arguable, is absolutely necessary.

The "construct" can only be architecture if it is related to physical and psychological needs whitin the framework of a corresponding constructive approach. In this way we come close to the meaning of the word "architecture:" we are rediscovering today several typical characteristics held in common by "architecture" and the etymological meaning of the word: "archos" means the "first," the "head;" "archein" = "to be ahead," "reign;" "tektón" = "carpenter," "builder," later each "creative craftsman;" "techné" means "art," the root "tek" expressing birth and creation. Architecture therefore means "the art of building."

We thus see that architecture expresses "art" and "technique" at one and the same time. But we must not forget that "technique" is also "movement" and "activity," i.e., evolution, which architecture can never ignore.

The following anecdote is a good illustration of what we mean by "technique." On the occasion of his birthday, Martin Heidegger invited some of his former students, now philosophers themselves, to write a short essay on the word "techné." After scanning the sheets handed in to him, he said: "Gentlemen, I notice that you have remembered quite a lot of the things I told you in my lectures. But unfortunately you don't tell me what the word techné' means. The word 'techné,' you see, is this . . .' Heidegger pulled out his table drawer and then closed it again before continuing: "Techné, gentlemen, is not only a means, but a movement as well. 'Technique' is an activity of man and this activity is not only a necessity, but man's contribution to the creation of structures."

"Architecture" and "utilitarian sculpture"

The architecture of the past has always been constructed and this construction is visible to the naked eye. Each column has its own dimensions, and even if it seems too thick to us, it corresponds exactly to the technical knowledge possessed by the 17th century.

This does not hold for the 20th century. Here the eye is no longer enough. "Sleek, jointless" structures require the slide-rule and a knowledge of economics if they are to be evaluated correctly.

In one way or another the elements of composition can only be evaluated by their construction.

As a matter of fact, nothing is easier than to "paper up" a steel skeleton till it looks as if it is a building in worked stone! On the other hand, nothing is harder to achieve than the constructive clarity of the same steel skeleton, this time without any "papering."

The Mies van der Rohe chapel is "constructed," Ronchamp is not: one of the walls is 2.76 m thick at the base without this being necessary. The "suspended" ceiling is not suspended, it is supported by hidden girders!

Construction and form do not correspond. In this instance the material quantity and quality have gone beyond the limits of "architecture," which becomes sculpture, to put it in a word, "utilitarian sculpture;" it is no longer a matter of the accurate use of technique.

It can be said, therefore, that when construction and form correspond—to be sure, in such a way that formal quality is at its highest—an architectural work will result. On the other hand, when they do not correspond, the limits of freedom will be exceeded giving way to anarchy.

The organic and constructed sculpture

The smallest alteration made to a truly logical plan entails the alteration of the total structure. Any honest architect knows how many of these modifications are important; they can lead to basic construction changes which will even influence the foundations of the idea in mind. The principle of interdependence can without any doubt be considered as something "organic."

The unity of use, construction and form

We have said that the architect is free to choose the appropriate type of construction; but this freedom is limited for the choice imposes certain principles. Moreover, the building's function only permits a relatively limited technical margin for that itself depends on use, place and cost. What will be our behavior in the case of an old town? The reply is simple: "Build according to our own means!" Those in the past did not act otherwise. Architecture is organic and therefore dynamic; it exceeds its own bounds in leaving that which is "living" behind; the architect-historian cannot be a creator.

The ancient Flemish town of Bruges has remained untouched by the ravages of time. Not only is its port silted up, but its economic life as well. Life nevertheless goes on and architecture expresses this life. When architecture gives up serving such a purpose, it has lost touch with immediate reality: it has touched one of its boundaries. Old cities must certainly retain their personality, but there can be no question of architecture when the attempt is made to imitate old styles. Unless, of course, architecture becomes mere imitation and can be abused at will. In that case, however, nobody has the right to subject it to criticism.

The limits of the past and the future

With the help of modern materials it is possible to give rise to certain forms from past styles without the construction being false for that reason. Construction can therefore be "honest" even though it leads to "old designs." The architecture of Auguste Perret, certain works by Saarinen, Rudolph and Johnsons (U.S.A.) show that this constructive "honesty" is not enough. What is necessary to know how to create the form appropriate to the new materials. The contrary can arise, at Ronchamp, for example: here the architect creates a form without the corresponding materials existing (for example, some synthetic substance)! It is in this sense that we refer to the limits of the past and those of the future. Obviously enough, those of the past cannot be exceeded, what has been exists no longer and will never come into existence again, whereas the forms of the future (Ronchamp) can be the starting-point for new techniques; they represent "progress."

Immaterialization of building technique

Up to now it has for a large part been a question of construction, but it must not be forgotten in the future what are the needs that guide architectural activity. Technique is leading us in a straight line towards immaterialization: certain apparatuses are able to produce invisible "protective curtains;" it is, therefore, possible to shield oneself from the cold and warmth, from light and rain, without having recourse to walls! Furthermore, the use of these forms of apparatus can be modified from one second to the next practically; the curtains of air, for example, can be suddenly interrupted. It can be said, therefore, that "solid matter" does not facilitate a rapid metamorphis of a building, flexibility, whereas invisible energy, the "immaterial," on the other hand, leads us to an almost perfect flexibility.

Achieving one's goal without materials and constructions

As we have just seen, architecture is leading us to the immaterialization of building technique, towards the goal and without the assistance of "solids." And yet, however, only the "material" is perceptible! Here we reach a new paradox in architecture and, at the same time, a basic problem: that of the necessity for an "aesthetic reality."

In effect, architecture must fulfil certain physical and psychological conditions simultaneously. Being only perceptible by way of design it must in one way or another satisfy certain formal, i.e., aesthetic, conditions. For this reason it becomes a "work of art."

Let us recapitulate:

1. The more flexible the building is the more it will answer the needs of human beings.

2. The flexibility of the building demands a technique that is no longer a "building technique."

3. At the very limit of the "construct" we arrive at apparatuses that produce curtains of air.

4. At this limit "architecture" no longer exists for architecture is only perceptible by means of solid shapes.

5. Being guided by needs means losing architecture, the "material" and the "construct."

6. Part of the problem—that of needs—can therefore be solved without the other part—construction—being involved.

Such considerations could easily set the architect on the wrong track. It is obvious that he could easily fall into the trap of ignoring the utility factor and giving free rein to his ideas. But to ignore utility means missing one of architecture's essential aims. That, in other words, would mean overlooking architecture itself!

Visible order

The foregoing remarks are not without certain dangers. The abstraction and "immaterialization" of architecture make us lose our sense of the "perceptible" and the "organic." The organic is not simply technical; it is both form and structure. One of the main tasks of architecture is to make organic structure and construction perceptible and "organic" means a spatially logical sequence or "visible order."

The menace to architecture cannot be avoided by conventional means of form and construction. As long as there is some material profit, we can give free rein to technique and "immaterialisation." But we must see to it that "utility" and "resultant structure" reveal an inner harmony. The observer, whether pedestrian or neighbour, will then have a chance to discover "the profound reasons" of architecture, i.e. he will have the opportunity to sense that there is something "organically appropriate." This implies that dweller and observer will feel that architecture has been raised to the level of art, i.e. that it has gone beyond utility and materials to enter the sphere of pure aesthetics.

The value of architecture

Having come to this point in our reflections, we must touch on some more characteristic traits of architecture. It is our claim that an architectural work must correspond to a visible organic order and that in this way it achieves its aesthetic goal. Does this mean to say that any building whatsoever—hospital, villa or public convenience—can attain the same artistic excellence. Far from it! It is true that as regards the architect each task merits being carried out honestly. The construction of a bathroom is quite as important as that of a church, for—in the last analysis—both are at the service of human beings, but the scope of the assignment is not the same in the two cases; and this scope is absolutely decisive. A small object does not have the same range as one that is large. Details are not as essential as the unitary whole. Is it not a fact that twentieth century architecture is lost in a forest of details? We have no knowledge of any general example of town-planning or regional layout where the quality is comparable with that of the best of our buildings.

The value and range of the architecture are therefore two vital factors.

Summing up, we can say:

1. Not all that is built is architecture; architecture depends on the range of the problem. Utility and constructivism are necessary but not sufficient.

2. Nevertheless, each problem that is set architecture deserves serious study, whether it be great or small.

3. The great problems of architecture are the index of the necessity for a certain moral hierarchy. Not every building has the same range. The concept express a non-material value.

4. Each building requires an evaluation of its ideal cope.

5. This evaluation obviously depends on our sense of "true value" and this value cannot be measured with the help of mathematical tables; an absolute currency does not exist!

We have already said that each construction requires to be evaluated in terms of its ideational content, and that this evaluation depends on our feeling for "appropriate values." What is it that takes place when we set out to determine such values? On the one hand it is impossible to imagine there is such a thing as an "absolute hierarchy" of values. Politics and ethics, for example, introduce elements of relativity. But this does not prevent us from creating a certain "order of values," if not a hierarchy. How are we to evaluate the relationship between values and constructed object? Absolute values will play very little part where a Vespasian is concerned. As for the hospital, ideational and material values will just about balance each other out. In the case of the church, absolute values will play a much larger role than the material. To get a better grasp of the "idea—object" relation, we can draw up a simple formula where V = value, I = the ideational content of the value, F = the function of the material object. The result is an equation that, of course, should not be taken too literally:

$$V = I/F$$

The quantity factor is neglected, for which reason we adapt the formula as follows:

$$V = I/F + I + F$$

We therefore reach the following table of values:

Vespasian:
$$V = {}^1/_5 + 1 + 5 = 6,2$$

Hospital:
$$V = {}^{1000}/_{1000} + 1000 + 1000 = 2001$$

Church:
$$V = {}^{2000}/_{400} + 2000 + 400 = 2405$$

It is relatively easy to evaluate F. It corresponds to the various "classes" of construction (or objects) which determine the architect's fee. I, on the other hand, fluctuates considerably depending on the moral and social import of a society. Some would give nothing to the ideational value of the church, whereas others would consider it to be 5000.

Architecture as a model

Often we build for "others." Our client wants such and such a detail so as to satisfy public opinion. It is in this way that society imposes certain patterns on us that we are unable to escape from. And the architect must bear this mind as he works for society. But what is this society, our society?

Let us conclude these observations by summarizing some basic topics that have emerged in the course of this commentary:

1. The architect must take part in intensifying human contact without failing to pay attention to the possibility of isolation.

2. The constructed forms must be structured within the framework of a visible order.

3. The diversity of the human species must be physiologically and psychologically expressed in a work of architecture.

4. Buildings must show their value and standing in society.

5. The human needs expressed by architectural ordering will make of architecture a model expressing in its turn the creative forces of society. Architecture will thus become a creator of patterns of life.

In this way "modern" architecture will attain the highest aesthetic goal by expressing in terms of reason and order a path of conduct to be followed. It is obvious that no single building or detail will suffice to carry out this programme. Only the general scope of architectural activity can do this.

Pier Luigi Nervi

Two Arenas Constructions in Rome

(pages 313—317)

In Nervi's arenas the constructive element is predominant, which is easily understandable since what is mainly involved is the problem of span.

In the two arenas Nervi obtains the desired span by means of a dome, the shape of which varies according to the employment of the prefabricated roof elements. Nervi has already on many previous occasions had the opportunity to experiment with ribbed domes, as, e.g., in Turin.

Nervi, thanks to these constructions, has proved that the use of prefabricated concrete elements is possible, and even, in this case, much cheaper than construction on the site, especially when double-curved "canopies" are involved.

Van den Broek and Bakema.
Associate: J. Stockla

North-Kennemerland. The planning of a Region

(pages 318—323)

Several considerations regarding contemporary planning and architecture

Kennemerland, in the north of Holland, is a huge area where villages and towns can still be distinguished at this time. That will hardly be the case any longer when, in 35 years' time, 200,000 additional inhabitants have been housed there Large uninterrupted agglomerations will cover the region, all the houses will be alike, the plans of these will also be the same

At the large conferences of architecture there is talk of prefabrication and interchangeable elements, which so it is said, are to allow for a wide range of variations Nevertheless an ever-increasing monotony is making itself felt.

Democracy allows each man to choose his home, his clothes and his food and, from time to time even his way of life. The use of machines should increase the range of choice and not the contrary.

In our towns one should, above all, build for those with slender purses. Everyone has the rigth to be housed decently in such a way that he can lead the sort of life that suits his tastes. Nowadays, however, we are building flats that render it impossible for the individual to open out.

Only one aspect of life can be studied and standardized. The other—the ineffable—is of greater value. Unfortunately it has not been considered by the building industry. Democracy ought to know that men have the right to organize their lives as seems suitable to them. In 1948 the experiment in the repeatable and horizontal "unité d'habitation" was launched. In spite of the mechanization of building methods the idea was to stress the notion of a living architecture. In 1956 several types were studied regarding this subject (see issue No. 3/1959) In this connection it is interesting to note that the Americans —technically the best equipped (automatic kitchens and cars, etc.)—from time to time amuse themselves by cooking a piece of meat over a wood fire! Our democracy must foster the idea of "high rate of automatic production," on the one hand, and that of personal freedom and responsibility, on the other. It is thus that the happy medium is reached.

North Kennemerland Planning Order

The order was given in 1957. The communes of Alkmaar, Akerslot, Bergen, Castricum, Egmond, Egmond-Binnen, Heiloo, Koedijk, Limmen, Oudorp and Schoorl, and later 1959, St. Pancras took part in this regional planning, which was as follows:

a) Preliminary sketches for new housing complexes and "elongated dwelling."

b) Regional disposition of these housing complexes. Adaptation to existing agglomerations, etc.

c) Calculation of utilizable surfaces: building, amusement, traffic and social services.

d) Economy and different types of construction (prefabrication).

e) Social aspects of the suggested construction designs.

Present state and future of North Kennemerland

The 11-communed region in question is 210 km². From the geographical point of view the following regions are distinguished:

1. The long strip of dunes to the north.

2. The neighbouring marshland. These two regions form a unit.

3. Another region, with no specific character, between the marshland and the agricultural country to the east of North Kennemerland. In this section building is concentrated on the communes of Castricum, Limmen, Heiloo and Alkmaar. It is here that national highway No. 9 is envisaged.

At the present time the entire population of the region amounts to 100,000; this is divided in the following way:

	Number of inhabitants	Agglomerated centre (ha)
Alkmaar	43,000	425
Akersloot	2,700	42
Bergen	10,000	240
Castricum	11,600	128
Egmond	7,400	99
Heiloo	12,000	190
Koedijk	2,200	—
St. Pancras	1,600	—
Limmen	3,200	95
Oudorp	2,200	15
Schoorl	3,600	165

Division of the active male population:

22% work in the marshes
30% industrial work
13% other activities
35% active outside the region studied.

The present population lives in houses but according to the plans agreed upon a large number 3 and 4-room flats will be built. These complexes will be built around the existing centres.

The population will increase very rapidly: In 1995 300,000 people will live in the region, that is to say, 200,000 more than today! This population will be largely industrial in character.

The No. 9 national highway project will play a leading part. This road will link the southern provinces with the north of the country. No particular changes will be made to the road and river networks, except perhaps in the region of Alkmaar. The parcelling of the land will be standardized. The current agglomeration is with 3 to 4 storeys; only 3—7% of the agglomeration will have several storeys (point blocks).

Form of housing today and the idea of a "unité d'habitation"

There are three main housing groups (see issue No. 3/1959, p. 94):

a) Individual flats (villas) and terraced flats.

b) Maisonnettes, some with from 3 to 6 storeys.

c) Point blocks with from 8 to 15 storeys.

Present ideas point to the housing of large families in individual flats (group a). Each type of house demands a particular way of utilizing the land. The idea of repeatable and horizontal "unités d'habitation" (1948) is an embodiment of types a and b (see also issue No. 10/1959).

In the case of North Kennemerland the increase in population by 20,0000 will necessitate the intensification of the use of type c. 30% of the population will live in point blocks.

The "unités d'habitation" in question will have 950 flats. They require an area of 20 ha, of which 10 will be built on in fact. The total length of their roads will amount to 2,300 m, and to this must be added 800 m of pedestrian paths. A current town-planning scheme of the same size comes to 25 ha, of which 13.5 are built on and where the roads amount to 5,000 m in length. Each "unité d'habitation" has schools, shops and other services.