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Revner Banham

"Clip-on" Architecture

(Pages 166-179)

In a study devoted to the potentia-lities of technology in America, which was published in a special issue of the Architectural Review, Gerhard Kall-man writes, under the title "Men Made America": "The question can now be raised as to whether, in view of the new trends, with anonymous planning, all the procedures tending toward cen-tralization are having to give way to new methods".

new methods. That was written in 1950. History has shown that no one in the USA at-tached any importance to this idea, and the Americans have continued to resolve architectural problems in accordance with the methods of the old world, in this way bringing about a revival of the monumental style. The rare examples of anonymous architec-ture, "non-centralized" building, which were created in the USA towards the Fifties are at the present time among the most severely criticized buildings, such as the long elevations of Eero Saarinen's General Motors Technical Center (III. 1).

The idea of the infinite

The idea of the infinite Although the question posed by Kall-man was without issue in America, it did inspire a number of ideas on the other side of the Atlantic. Kallman's conception fits into a long range de-velopment of ideas of indeterminate architecture. Under different designa-tions, this idea has turned up in Eng-land in several places over the last fifteen years. The famous prefab school buildings in Hertfordshire constitute an excellent example of indefinite re-petition of standardized wall elements, which are glazed and thus form an unlimited repetition of identical unities. Six months after the appearance of the article by Kallman, Richard Lle-welyn Davies, in an address delivered before the Architectural Association of London, summed up most of these ideas which were still vague or ob-scure. Davies was always an expert in the interpretation of conception having to do with architectural design and construction methods. Under the title 'Infinite Architecture'', he pre-sented not only his own ideas but those of a group including, in parti-cular, Leslie Martin and John Weeks. They devoted their time to the inter-pretation of the architecture of Mies van der Rohe, pretation of the aesthetics of the ar-chitecture of Mies van der Rohe, taking as examples the buildings of the Illinois Institute of Technology in

the Illinois Institute of reciniology in Chicago. At Pantin and at Bobigny, near Paris, Emile Aillauds built infinite residence blocks, which are indeterminate, "non-centralized", in serpentine form. The same indeterminate architecture oc-curs again in the projects of Smith-son These conceptions were realized son. These conceptions were realized

son. These conceptions were realized in the famous Park Hill agglomeration in Sheffield (III. 2). In the meantime, toward 1951, a new type of composition makes its ap-pearance. In fact, British architecture tends in the direction of an infinite manner, which is indeterminate and shapeless, in which each part is as important as any other part, and can be replaced by any other part at all. Alison and Peter Smithson, the re-newers of British architecture during the Fifties, created, in 1955, a design of a plastic house (III. 3). In the same year there were realized a plastic house by lonel Schein for the Exhibi-

tion of Household Arts in Paris and a plastic house at Monsanto, which was finally installed in Disneyland (III. 4). Smithson's version, however, was more subtle than the plans by the other architects. Gradually the Smithson brothers be-

gan to develop in another direction. lonel Schein and his partner Jacques Ionel Schein and his partner Jacques Coulon, nevertheless, went on, to the end of the Fifties, with their studies on the potentialities of an infinitely repeatable cell unit. They created a series of plans of residence elements, which increasingly resemble industrial products and less and less architec-ture as we know it. This cell is fur-nished with all ducts and mains so that it becomes almost an independent hished with all ducts and mains so that it becomes almost an independent residence capsule. With the addition of supplementary parts to the cell, it was possible to create points allowing for the attachment of other capsules and so to create a house of any de-circle disc. sired size.

The "Clip-on" idea

The invariable basis of this idea is the

The "Clip-on" idea The invariable basis of this idea is the tent, the dome or the balloon, of syn-thetic material, this unit composing the main living tract. All the capsules which are added to this basic unit represent the "Clip-on". The Smithsons' house and the unit-motel of Schein/Coulon have the characteristics of "Clip-on" archi-tecture, but, as soon as the cells are attached, the "Clip-on" idea vanishes. With the adjoining of 2 or more cells the problem of an entirely new factor comes up. Service mains, telephone and other elements ought in principle to be created at the same time as the unit itself. To resolve this problem, the creators of the scheme reversed the usual set-up: The upper house be-comes the source of power and services. It carries the entire structure, and the "Clip-ons" become residence units. That is why the Archigram group employe the term "Plug-in" instead of "Clip-on" for its urban plans. Never-theless, from the purely technical point of view, the two methods are often employed in one project, and the design tradition transcends the sub-tleties of the mechanical differences. The "Plug-in" city

The "Plug-in" city

The "Plug-in" city The Archigram group are not in a position to say with any certainty whether the "Plug-in" city will ever be able to function. The group, how-ever, can give certain indications show-ing what such a city would look like. In 1964, "Archigram" became inter-nationally famous as an architectural review with Issue No. 4, which con-tained nothing but a "Space Comie", showing a city floating in space. It offered the world, which is keen on pictorial images, a new vision of a city of the future, made up of ele-ments attached to scaffold structures by means of cranes. Naturally, one is free to accept or to reject Archigram's vision of the hovering city, the city of ordinates, the "Plug-in" city. Never-theless, it has to be admitted that Achigram's installations, with inter-changeable residence cells and sup-porting scaffolds, seem to constitute the first plausible image of an archi-tecture determined by technology since the geodesic domes of Buck-minster Fuller fascinated the world 15 years ago. England's contribution to indeterminate architecture has reached such a point that it deserves our most careful

architecture has reached such a point that it deserves our most careful attention at the present time

Rudolf Doernach, Hans Joachim Lenz, Eckhard Schulze-Fielitz Urbanization System, Association for

Research and Development

Urbanization System (Pages 176-178)

The importance of prefabrication in light materials is uncontested. At the present time, nevertheless, it is leadsolely for flat constructions. The prob-lems of traffic and the shortage of building sites are increasing the risks of solid-wall production. A system of industrially prefabricated

urbanization ought to allow for any given kind of design (III. 1). This system entails the expansion of the building project and the division of the assign-ment into a neutral urban structure

system (III. 3) and a filler procedure (III. 8). As technical means with a view to modifiable designs, there are being proposed steel skeleton frameworks. This type of structure contains all the ducto and maine suph as works supply. ducts and mains, such as water supply,

As for the filler elements, there are re-ducts and mains, such as water supply, sewers, electricity, heating, etc. Spa-tial cells of plastic are installed in the macrostructure and tied in with the network of mains. As for the filler elements, there are under consideration spatial construc-tion parts (dimensions 2.8, 3.6, 7.2 meters). They have the advantage of a higher degree of prefabrication. In this way, construction costs are re-duced, and there is an increase in productivity. In order to get a large diversity of apartment types, there is added to the spatial elements a coordinated system of panels as well as supplementary elements for special cells, roof, stairs, balconies, loggias,

For the spatial cells and the panel For the spatial cells and the panel elements, new materials are employed, e.g., FERSOTON, which is a thin polyurethane, light (400 kg/m³), heat-insulating (0.7 kcal/m²), resistant (10-20 kg/cm²), not liable to strain thanks to the steel fireproof bracing. FERISOTON, the new construction material, protects the steel from cor-rosion and from fire, permits assembly-line production and replaces costly sandwich constructions.

Fritz Haller

An urban system (Pages 179-181)

Extracted from a lengthy work which will appear in August 1967, in book form, Walter Publishers, Olten, and the title of which will be "An Urban Svetem".

the title of which will be "An Urban System". Preliminary Remarks The word "city" is not intended to designate in this connection a limited agglomeration which is densely built up, but rather a vital space in the broadest sense of the term, construct-ed for the use of man. Nearly all the sciences and nearly all the research work being done at the present time are directed toward the creation of a new vital space for man

present time are directed toward the creation of a new vital space for man and for our industrialized society. However, few groups are truly at-tempting to resolve similar problems. The reason for this is that they lack the time and the necessary means to conduct large-scale research. Ex-perience as well as imagination have failed to place these human researches failed to place these human researches at the service of a concrete assignment.

ment. The present work seeks to define this assignment, which is still slumbering in obscurity. The resolution of the problem presented here is called "supercomplex invention". The result of this work could be taken as a technical model for the description of the idea of a supercomplex inven-tion. No one will construct a city in accordance with this procedure, for it is not mature enough. Nevertheless, it is an attempt showing what extrait is an attempt showing what extra-ordinary efforts ought to be made until the point is reached when detached rooms constitute the totality of a supercomplex invention. The first extract from the work in events of a superconstance of a super-

question presents plans and explana-tions of the 4th grade unit. This unit comprises 60 million inhabitants; it is Nevertheless, there are to be found in the text indications bearing on 5th in the text indications bearing on 5th grade units and more, with popula-tions running into several hundreds of millions. The fact that no one has yet ventured to sketch out such giant units proves no doubt that our ideas are still insufficient to embrace the total planning of our entire vital space. The brief extract entitled "4th grade uint" is a prior indication of a much uint" is a prior indication of a much larger work.

Construction of the urban system (III. 1 and 2)

(III. 1 and 2) The urban system is made up of iden-tical cells disposed one above the other. The smallest element of this series is a 1st grade (e1) unit. A sum of such units forms a 2nd grade (e2) unit. A quantity of these units consti-tutes a 3rd grade unit (e3) and so on. Each unit consists of several units of smaller dimension, a centre (c) and one or two peripheries (p). In the centre (c) there are located all the

supply, production and service instal-lations, with distribution to the entire unit.

In the periphery (p) we have the welfare services, educational facilities, research plant, etc.

e4 4th grade unit (III. 3 and 4) 61,000,000 inhabitants

16,700 sq. km. of land

16,700 sq. km. of land Movement in the direction of the planning of an agglomeration system for 60 million inhabitants and more has entailed many problems, the reso-lution of which is of crucial importance for the realization of smaller units. What are the potentialities of the automatic train above the plane of the 3rd grade unit? What are the con-ditions of transport for systems of a higher degree of magnitude? What about the recreation area (week-end area, vacation region)? How is food production to be incorporated in a total system? What rights and functions are allotted to the centres and peri-pheries of 4th grade units and above? pheries of 4th grade units and above? The 2 4th grade units (e4) presented here are each made up of 4 groups of 3rd grade (e3) units, of a 4th grade (e4) centre and of 4th grade (p4) peri-pheries. Depending on the geograph-ical, economic and political conditions of the smaller units, a unit of the 4th grade can also consist of more or fewer 3rd grade units.

The centre of the 4th grade (c4) unit is the "capital" of the 4th grade unit. In the capital there are accommodated In the capital there are accommodated all the services, such as public au-thorities, administration, the business centre and communications facilities as well as amusement centres and information and orientation, etc. Aside

information and orientation, etc. Aside from apartments and hotels in the residence towers of the urban centre, there are, in the 4th grade centre, 24 2nd grade units for around 3 million inhabitants. The 4th grade (p4) peripheries are designed for large-scale research centres devoted to special projects. These 4th grade peripheries also pos-sess supplementary residence units of the 2nd grade for around 4 million inhabitants. inhabitants.

The green zones outside or between the 3rd and 4th grade peripheries and the 4th grade centre are intended for recreation, with parks, lakes, motor roads and forests.

Depending on climatic conditions, un-occupied surfaces in the vicinity of the industrial zones of 3rd grade cen-tres are reserved for agriculture or stock-breeding.

Transport systems in the 4th grade unit (III. 5)

unit (III. 5) The automatic train moving passengers and goods in all 3rd grade units is tied in with the centre and the peri-pheries of the 4th grade. The main communications in the elements of the 4th grade unit are effected by means of a network of express trains with speeds of up to 800 km/h. To cross one half of the network takes half an hour to an hour, including stops. The same express trains effect connections with other 4th grade units and with any centres and peripheries of 5th grade units that may be planned in the future. The transport of goods is likely to be effected on the express network, but

The transport of goods is likely to be effected on the express network, but during the slack hours. Heavy ship-ments, express goods and emergency consignments are effected by heli-copters, between the centres and the 3rd and 4th grade peripheries. The helicopters also handle the connections with the 4th grade centre, where trans-fers to the intercontinental air net-work are made. All these main transport networks in the 4th grade units, tied in with the systems of larger units, would have to be developed further, especially within the framework of a "planetary plan".

plan'

Friedrich Achleitner

Urban Fiction in Austria

(Pages 181-183)

Since the exhibition of Hans Hollein and Walter Pichler at the St. Stephan Gallery in Vienna (May 1963), there has been a lively discussion on the subject of town-planning for the future, in Austria. Another exhibition has just been held in the same gallery. Under the general thematic title "Urban Fiction", this show brought together,

for the first time, all the current tendencies. Except for Hollein and Pichler, who present their old ex-pressive cityscapes, there are in Austria mainly two groups, in the institutes of technology of Graz and Vienna Vienna

Vienna. The principal feature of the work of Hollein and Pichler is the attempt to express in an exaggerated dramatic fashion the forces underlying urban life. Pichler's architectural manifesto indicates a certain relation to futurism. We find in the work of both Hollein and Pichler the idea of the liberation of architecture of a return to its prijel and Pichler the idea of the liberation of architecture, of a return to its origi-nal values. Hollein's manifesto dec-lares: "The design of a construction is not determined by material condi-tions but by man alone. At the present time when for the first time in the history of mankind a developing science and perfected technology are placing their resources at our dis-posal, we are building what we want, we are creating an architecture which is not determined solely by engineer-ing, it is pure, absolute architecture. Man is becoming the master of space."

Man is becoming the master of space." For its part, the group of architects at the Institute of Technology of Graz is protesting vigorously against the predominance of form. Although there can be noted in their plans the same tendencies towards plastic and spatial attractions, the background remains functional, that is, constructive design is considered to be the result of a coming to terms with diverse realities. This debate, as it were, is the trial of This debate, as it were, is the trial of the plan. This group also shares a certain optimism regarding possibili-ties in landscaping and the importance of this factor.

of this factor. Bernhard Hafner is one of the mem-bers of the Graz group. Many of his ideas can be considered characteristic of his group. "The task of art is not the interpretation of realities but, rather, procreation, the conception of realities requiring a much vaster in-sight. Total architecture is more im-portant than 'architectures', i.e., ar-chitecture is becoming town-planning, that is to say, the expression of the needs and of the mentality of society, of the tension between personal liberty and social dependence as well as and social dependence as well as between individual will and the requi-rements of the community. Hafner, in his project, develops a communal structure and an individual structure with the following charac-teriotics.

teristics:

The municipal structure regulates the life of the community and in this way moulds a network of constructions reserved for public installations, as well as service mains.

well as service mains. The community structure ought to guarantee to society enough space to permit its development and growth. The flexibility, the adaptability of the urban structure will be ensured by the concentration of service mains as well as by archigrams for residence struc-tures and their servicing, including social, cultural, educational and ad-ministrative facilities. The individual structures are specific

The individual structures are specific The individual structures are specific constructions which represent the dependence of all on the community structure, the expression of private wishes and of personal imagination. The Vienna group (seminar of the students' club in the architecture field, with Günther Feuerstein) expresses an emotional and non-rational con-ception of architecture which also

ception of architecture, which also accepts the preponderant role of for-mal design. As for the ideas of Lau-rids Ortner, they are the most radical of all

of all. Hans Hollein has already discussed the problems of adaptation of designs in his "aircraft carrier cities". In the Feuerstein group, attention can be drawn to the attempts, based on in-tuitive insight, to create a spatial equivalent to social situations (e.g., the construction of a vacation village for children). Here too, application is made of forms of organization deriv-ing from the biological realm, which are then adapted to the exigencies of ing from the biological realm, which are then adapted to the exigencies of architecture. Despite its non-rational and subjective point of departure, this group, like all the other groups, is, in the last analysis, seeking to develop the image of a city which reserves enough space for the activi-ties and the capacities of man. Although the projects of these groups often possess an exclusively provo-

often possess an exclusively provo-cative character, there are in Austria very few proposals being made that

formulate an idea in all its details. There are, however, two projects which reveal, albeit in a very different manner, new housing designs. One of these projects we owe to Josef Lackner and the other to the Graz group of Günther Domenig and Eil-fried Huth. Lackner is working together with a Swiao anterpriser and a hasm with a Swiss enterpriser and a team of experts from the Biotechnical Re-search Association. What is involved search Association. What is involved here is an anti-urban type of housing, the ideas underlying which are not revolutionary. The other project has the aspect of a highly urban type of housing. The supporting structure (secondary system) does not concern merely the building site, but it also comprises the entire distribution system. The individual resident can design his own apartment as he desires. desires.

These two projects are discussed, in this issue, in greater detail by their authors.

Günther Domenig, Eilfried Huth

Propositions (Page 184)

For the future a quest is being made for an individualized type of housing in which the private sphere will be so vast that it will permit the expansion of an apartment within the free volume of the whole structure, thus keeping pace with the growth of the family and depriving week-end touring of some of its attractions. Educational reforms and the use of teaching machines are undering

teaching machines are rendering superfluous the construction of school buildings.

The standard of living pyramid will be parallel to that of education and creative effort.

creative effort. Apartments are living volumes that are individually installed and finished, often furnished with terraces and roof gardens. The volumes of buildings are external skins, and the arrange-ment of rooms inside is effected in-dependently, aside from fixed instal-lations. lations

Observations on the subject of townplanning

The question of the definition of the future property will constitute the essence of the problem. If no solution is forthcoming for this problem, all plans will remain disjointed projects.

It will prove necessary to draw up structural plans, plans that are publicly financed. Individual expansion within the volume of the city ought to depend on the needs of each. It will therefore be necessary to envisage residence volumes in reserve in order to allow for the creation of the "modi-fiable residence". The spatial order ough to take into account the follow-ion forthere. ing factors:

houndaries

concentration of building site,

grouping of recreation areas, wooded areas reserved as vacation zones and for forestry,

d)

e) intensive agriculture,f) construction of detached houses strictly prohibited.

Proposals for an urban type of housing We are trying, in our projects, to transform the expanded fashion of living into types of urban agglomer-ation that would avoid the building of detached houses.

Friedrich St. Florian

The vertical city and its elements, 1967

(Pages 187-188)

The second half of the 20th century The second half of the 20th century has sprung a surprise on the town-planners, a surprise that gives their task an added dimension: the city of 10 million inhabitants. This city will not come into being simply through an expansion of the city of 1 million inhabitants. The new size, the new scale, do not exist yet. Nevertheless, various attempts are currently being made with a view to giving new inspi-ration to town-planning and a shape ration to town-planning and a shape to the city of the future. The project dealt with here is an ex-

periment which has incorporated the new needs. Basing itself on the ex-ample of Boston, which for the last

4 years has been realizing one of the boldest urban reorganization plans in

boldest urban reorganization plans in the USA, this project gives an advance view of the future city: the vertical city and its elements. Its principal elements are, first of all, immense transfer stations which re-gulate the traffic flow on different means of transport. These transfer stations represent important fixed points in the draughting of future town plans. Three different transfer stations could be sufficient. Inter-change 1 regulates all surface traffic (cars, monorail, underground). Inter-change 2, installed on top of the city, transforms the different system of air transforms the different system of air transport (helicopter, vertical take-off planes). Interchanges 1 and 2 are tied in with Interchange 3, which for its part handles long- and medium-distance transport.

Vertical systems of transport and service built in between the transfer, service built in between the transfer, or interchange, stations, as well as horizontal bridgeheads, constitute the general framework. Within this frame-work we have all the institutions that represent the core of the city (ad-ministration, hotels, banks, restau-rants, shops, visitors' flats, cultural institutions, etc). The highly developed transport and communications system is justified only if the uninterrupted activity of the core is guaranteed.

the core is guaranteed.

Noburn Kawazce

From metabolism to metapolis Project for a city of the future (Pages 189-192)

How ought the cities of the future and their detached elements be realized in practice? How are the architects to proceed? In Japan it is Prof. Tange of the University of Tokyo, and a group of architects, town-planners, designers and critics, a group styling itself "Metabolism", which is combin-ing its efforts and research projects an attempt to reply to these ques-

The "Tokyo Plan 1960" (published in Building+Home 1/64) by Prof. Tange is widely known, but since then Prof. Tange bee not come out with any new Tange has not come out with any new plan. The "Metabolism" group, set up in 1960, has concerned itself with joint in 1960, has concerned itself with joint projects. A major proposal for the building of a new city was published under the title "Metabolism 1960". Since that date, a few members have sporadically brought out their pro-posals, but the second joint report has yet to come off the press. It is impossible to furnish an inter-pretation of all the proposals put for-ward by the group. Nevertheless, we can sum up the common ideas which constitute the basis of individual pro-

constitute the basis of individual pro-

Rapid urbanization and industrialization, these hallmarks of our age, can be compared to metabolism in nature. be compared to metabolism in nature. It is therefore up to the architect to mark out the paths to follow for our evolving society faced with its mani-fold problems. At the same time, the architect concerned with this meta-bolism should strive to stabilize and sustain human life. Several methods for achieving these ends have been put forward, methods in part deriving from members of the "Metabolism" group.

from members of group. Metabolic urban systems seek to develop an overall plan which reflects the desires of the masses of the po-pulation. Metabolism, for the archi-tects, is a purely technical concep-tion. These architects do not raise meetions concerning problems of pre-set to what dition. These architects do not raise questions concerning problems of pre-sent-day civilization, as to what di-rection it will develop in, what meaning it has for people and whether it is good or bad. The "Metabolism" group has chosen, for the years after 1965, the theme "metamorphosis". That means that the group has reached a stage allow-ing it to point out the future road. If "Metabolism" launches an appeal to architects requesting them to be-

If "'Metabolism" launches an appeal to architects requesting them to be-come aware of their responsibility, "Metamorphosis" indicates that the group aims to trace out the route to be followed by whole civilizations. All the continents ought to form an organic body so that future genera-tions can rule over nature by means of technology. Mankind has still to overcome many obstacles before the process of transformation leads to a universal culture. Such a civilization

will not for long remain an urban civi-lization as in the past. The members of the "Metabolism" group decided to call the future mode of living "Metapolis". Mankind will be obliged to pass through different stages of development before arriving at "Metapolis" 'Metapolis'

at 'Metapolis'. During the last few years, it has been possible to observe, in a number of Japanese cities, a phenomenon that is quite characteristic but previously with unknown. There have been is quite characteristic but previously quite unknown. There have been constructed, for instance, polyvalent buildings, called "Kaisan". On the outside, they do not differ from an office building, but, on the inside, there are theatres, cinemas, a chain of shops, hotels and offices. Another phenomenop, the undergrand characteristic or snops, notes and onces. Another phenomenon: the underground shop-ping centers, first realized in Nagoya. Now these are to be found in all the principal cities of Japan. These shop-ping centers are tied in with railway stations, terminals, amusement cen-ters, etc. Soon the "Kaikan" will no longer suffice. It will therefore be necessary to build "superstructure" capable of covering the entire centres of cities.

of cities. A "Pair-City" plan, elaborated by Ki-kutake, envisages the construction of a new city on the outskirts of Tokyo, a city having centralized functions and multi-storey residence units (III. 1). This process is called "base develop-ment". Kikutake goes even further, and he has come up with the idea of the "ocean city", which renders an entire continent independent of the outside world.

The "Metabolism" group has decided to exploit the future of contemporary ivilization under the aspect of meta-morphic force. However, what does such a civilization mean for mankind? such a civilization mean for mankind? The reply to this question will pro-bably be the theme of the period starting in 1970. This theme will be called "Metempsychosis". In fact, after 1970, it will be necessary to examine the human race on the basis of the Eastern philosophy of metem-psychosis. psychosis.

Jürgen Joedicke

The Utopians of the Twenties in Germany

(Pages 193-197)

Introduction

Introduction The founding manifesto of Bauhaus' in April 1919 is decorated with a wood-cut by Lyonel Feininger. This woodcut symbolized the conception of Gropius, an idea formulated in the manifesto, according to which artists and crafts-men ought to form a new guild. "Ar-chitects, sculptors, painters, we must all return to the craft tradition". Such is the leading idea of this document. In 1923 Bauhaus put this new ideal In 1923, Bauhaus put this new ideal on its program, and this trend seemed astonishing to those who considered Bauhaus as the school that was pro-moting a reconciliation between techmoting a reconciliation between tech-nology and art. The characteristic tendency of this period is summed up in a phrase of the program for April 1927, where we can read that "the joint planning of utopian projects – con-struction of community and cultural buildings – is the aim to be achieved". At the present time, it is easy for us to criticize this period, whose imagi-nation exceeded the limits of con-structive reality and which believed that its ideas were capable of changstructive reality and which believed that its ideas were capable of chang-ing the face of the world. However, we must not lose sight of the fact that the impossible has to be imagined first if we are ever to realize the pos-sible. The architects of the Twenties, such as Gropius, Bruno and Max Taut, Wassili, Hans Luckhardt and Scharoun, who imagined utopian plans, realized real designs in the construc-tion of housing and of complexes when they were later on confronted with concrete assignments. concrete assignments.

Formations of groups

Formations of groups It is absolutely impossible to under-stand this. period in Germany and these artists if they are thought of in isolation from the political events of the period. The conception and the initiation of the realization of the new aims had greatly stimulated these artists. For the first time, artists in-spired by the same feelings came together with a view to realizing, in common, new tasks. The first of these associations was called "The Novem-ber Group" from the name of the

revolution which abolished the mon-

In December 1918, the group sent invitations to architects, sculptors, painters, writers, musicians and dra-matists, requesting them to join their matists, requesting them to join their association. A short time afterwards the "Working Committee for Art" was founded. This committee set forth in its manifesto: "Art and the people ought to constitute a unity, art ought not to be reserved for a privileged few, but it ought to participate in the hap-piness and enter into the life of the masses of the population". The "Working Committee" was dissolved as early as 1921, whereas the November Group continued to exist. It organized an exhibition in Berlin in 1926. In 1919, Bruno Taut, who played a

In 1919, Bruno Taut, who played a dominant role among the architects of his period, invited various archi-tects and artists to engage in cor-respondence in which each could express his ideas and announce his projects anonymously. This correspon-dence continued from the end of 1919 to the end of 1920. It enables us to form a more exact idea of the prob-lems confronting that epoch.

In a more exact dead of the prob-lems confronting that epoch. In 1914 Sturm Publishers brought out the work entitled "Architecture in Glass" by Paul Scheerbart. The author (1863–1915) evoked in his novels, which were utopian and fantastic, visions of a totally imaginary world. He too was a member of "The Storm" (Der Sturm), where he made the acquaintance of Bruno Taut. In the glass house by Taut exhibited at the Cologne Werkbund (III. 1-3), the rela-tion between the conceptions of the two men was quite clear. Taut's glass house, an advertizing pavilion for the glass industry, was modified under the influence of Scheerbart into a construction exceeding the limits of reality. reality.

The architecture in glass realized here did not represent only an aesthetic program but also a mural require-ment. Nevertheless, it is not neces-sary to compare Scheerbart's vision, as regards glass architecture, with the glass houses at the end of the Twenties. In point of fact, Scheerbart did not seek to create a concrete glazed architecture but, rather, fan-tortic architecture but, rather, fantastic spatial effects.

In his work, we likewise find sug-gestions on mountain illumination. His idea was to construct hotels on the sides of mountains which would resides of mountains which would re-semble glass palaces illuminated from the interior. This idea had already made its appearance in a utopian novel which came out in 1901. Taut took up this project in this work "Al-pine Architecture" (1919), in which, in 5 chapters, he described the fan-tastic transformation of the surface of the earth the earth.

In this work we find ourselves con-fronted by the phenomenon of a con-scious utopia. However, as in the case of Scheerbart, these ideas are based on reality. Taut takes as his point of departure the condition that the spi-ritual force of a people gets expressed in magnificent buildings. He considers a utopia a means for stimulating new ideals.

'Unknown Architects'' Exhibition in Berlin

In April 1919 the Working Committee for Art organized an exhibition unknown architects with a view unknown architects with a view to finding new unknown talents. In the catalogue of this exhibition Gropius, Bruno Taut and Behne wrote an article each, in which Angkor Wat, the Alham-bra and the Dresden Zwinger are cited as models of architecture. Taut's pa-thetic query: "Does architecture still exist at the present time?" is an in-dication of his rejection of utilitarian architecture. In his article, Gropius also expressed his desire to abandon reality as such in order to devote reality as such in order to devote himself to utopia. At this exhibition, there could be seen in particular works by the painter Hermann Finster-lin.

Glass Chain and Morning Light

At the end of 1919, it was again Bruno Taut who took the initiative in inviting laut who took the initiative in inviting 14 friends to exchange their ideas by correspondence. In these letters, the collection of which is known under the designation "Glass Chain", we can see once more the utopian ap-proach prevailing in this period. Along with this endeavour, B. Taut engaged in bringing out a booklet, complementing the review "Urban Architec-ture in Ancient und Modern Times", a booklet to which he gave the title "Frühlicht" (Morning Light). In Früh-licht he published the projects and ideas of the members of the "Glass Chain". Chain'

Conclusion

Conclusion All these sketches and projects have remained on paper only. One single plan was actually realized: the trans-formation of the old Schumann circus into a theatre for Max Reinhardt, a project carried out by Poelzig and inaugurated in November 1919. In 1923-1924, events took their course in Germany. Architecture returned once more from the utopian realm to reality. Bauhaus modified its leading idea "Art and Craftsmanship ought to constitute a unity" to "Art and Technology ought to unite". Some day in the future, no doubt, buildings will be put up in which the conceptions of this epoch are finally realized after having undergone a metamorphosis.

Heinz and Bodo Rasch, Wuppertal/ Stuttgart

Realization of a utopia

(Pages 198-200)

Preliminary Remarks

Suspended constructions, in which the resistance of steel cables to traction is utilized to hold the building up over empty spaces, are now parts of the usual idiom of modern architecture. The buildings at the Brussels World's Fair, the plans and buildings of Frei Otto and René Sarger demonstrate the potentialities of this construction procedure. The use of suspended con-The procedure. The use of suspended con-structions is not applied only to the erection of broad-span hall buildings, but also to superstructures. As early as 1927, Heinz and Bodo Rasch de-veloped a series of plans in which they explained the potentialities of this new type of construction. Neverthe-less, the honour of realizing their ideas in practice was reserved for our own time. In 2 competitions in 1955, Heinz Rasch proposed the crea-tion of suspended houses. In April 1956, he draughted a patent applica-tion for this procedure, this applica-tion being subsequently granted. Jürgen Joedicke

The Weissenhof agglomeration was erected, in 1927, in Stuttgart. The two young architects Heinz and Bodo Rasch were asked by the publisher Wedeking to analyze the construction systems utilized in the realization of the Weissenhof buildigns. In their analysis, they determined two types of construction: masonry buildings and skeleton buildings. These findings inspired them to examine and elabo-rade a "housing system". The work "Wie bauen" (How to build), which appeared in 1927, and signed H. and B. Rasch, presented a number of buildings in which there had been employed the potentialities of sus-pended constructions in superstruc-tures. Bodo Rasch

1. Plan for a freight station

Architects: H. and B. Rasch, 1927 The text for examples 1 to 4 is taken from the work "Wie bauen".

Glass roofs are suspended on steel cables. Below, and likewise sus-pended, there are offices, stairways and derrick installations. The offices are entirely glazed. On the loading ramps, between the tracks, there are wire mesh cages for freight, handled by means of derricks.

2. Plan for a stadium with suspended

Architects: H. and B. Rasch, 1927

(111, 3, 4, 5)

The stadium encloses a football ground (105×65 meters), a 400-meter track, several 100-meter tracks, facilities for high- and broad-jumping, for putting the shot, for pole-vaulting and for gymnasticsonapparatus, etc. The grand-stands accommodate 80,000 people. This entire surface is roofed over with a Cellon dome furnished with a layer of steel wire. The roof is sustained by a main cable held among 4 masts

and by a series of supporting cables and by a series of supporting cables branching off from the main cable and running up to the extremities of the grandstands on top. In the bracing, there have been suspended 3 floors, each having a diameter of 60 meters. These floors house cloakrooms, baths and massage facilities, the administra-tion, a restaurant, etc. In the centre of the floors as core there is located of the floors, as core, there is located the stairwell.

3. Apartment houses

Architects: H. and B. Rasch, 1927 (III. 6)

The floors are suspended from masts composed of riveted tubular steel. The masts intersect. Assembly of the whole structure is effected from the top downwards. The floors have a diameter of 12 meters.

4. Suspended houses

Architects: H. and B. Rasch, 1928 (111. 8, 9, 10)

12 residence floors 15 meters in dia-12 residence floors 15 meters in dia-meter are suspended from riveted tu-bular steel masts. These masts are installed on a zig-zag pattern. Access to the floors is via paths 4 meters wide. Thanks to their weight, the access walks regulate the bracing dif-ferential of the cables. Assembly is effected from the top downwards.

1. Mast for 12 floors, 49 meters high The diameter of the mast, at the widest point, is 1.50 meters and at the end 32 cm. The spherical surface (32.5 cm.) resting on the ground is of steel and affixed to a concrete foundation 9.50 meters in diameter.

2. The bracing

The masts are braced by means of insulated steel cables at a 45° angle. The cables are intended to support the equivalent of 104 tons.

3. Suspension of the floors

At the extremity of the mast, there have been suspended the floors on flat irons, at a 5-meter interval from the mast owing to an adjusting cone.

4. Residence floor

It is made up of a floor, partitions and a ceiling. It is suspended at the floor at only 6 points. That is why the residence floor represents a complete residence unit. The floor, in plan, is circular.

5. Access routes

Each is supported by 2 lattice trusses of steel 28 meters in length. These trusses are furnished with facing. They serve also as balustrades. The walks are made of planks resting on girders.

6. System

6. System One unit of these suspended houses is constituted by 2 series of masts, the interval between the series being 21.40 meters. Inside each series, the masts are at an interval of 30 meters one from the other. In the centre, between the series of masts, the access walks have been suspended. It is permissible to determine the distance between the suspended houses. They can be brought together as far as a point where the height of the construction is equal to the di-stance separating them. In this case, the counterweights are dispensed with, since in their place there would be the foundation of the next series of masts. H, and B. Rasch

Ionel Schein

France: Utopian Reality

(Pages 201-206)

"People who have become middle-aged judge contemporary situations by comparing them with what has been, which was often worse. Such become conservative, because they fear more than they hope. Youth jud-ges its own time by comparing it with what would have to be. It wants to change things, because it hopes more than it fears." (Françoise GIRAUD). This citation expresses wonderfully not only the present conflict between the generations on the old Continent and elsewhere, but also, with amazing precision, the situation in which young architects and town-planners find themselves in France and in other countries. countries.

What is shown on these pages is not a true and complete picture of the situation, but only an excerpt revealing a number of studies and finished projects. They all have the following in common: their isolation in their en-vironment and in society and their intellectual isolation. These studies and projects do not stem from a com-

projects up to stem from a com-prehensive philosophy of the urban architectural phenomenon. Thus, most of the young architects concerning themselves with social development studies arrive at solu-teception and ethers in a kind of

concerning themselves with social development studies arrive at solu-tions which end either in a kind of formalism or in the aridity of a "meta-physical" system, extreme cases of which are Friedman and the sculp-tor Schoeffer, who is even more ele-mentary and even less subtle. Others, again, assimilate architecture to the latest fashion rather too easily. The spatial presence of a design must fructify the vital rhythms of a community (production – distribution – consumption – exchange) and harmo-nize them with this design and with all other developments. What, after all, is the use of elevating the population of Paris in a three-dimensional structure 50 meters above the ground, if the living conditions of this population do not fundamen-tally change, if the relations between one person and the other remain the same? The architecture must not only be in keeping with the building pro-gram and satisfy the given require-ments (in the good old outmoded tradition of the Charter of Athens), but the architecture has to permit deve-lopment, has to pioneer ahead of it, indeed, even promote it. The following pictures express clearly the fact that a few have become aware of the problem. They do not all speak with the same power, with the same the problem. They do not all speak with the same power, with the same comprehensive sweep. However, we are only at the beginning.