Architecture and Utopia
Visions of the City in our Century

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INTRODUCTION

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The nature of 'Utopia' is such that it defies definition.
Even though it is an everyday household term, it stands for
many centuries of ideas and experiment in the form of such
disparate media as novels, political tracts, actual states,
manifestos and blueprints.   The term shows people at their
most imaginative as well as at their most pedestrian.

Any attempt to define it would be hopeless, unrealistic,
impractical, impossible, doomed to failure, in fact Utopian.
Yet, for a great many people the word has meant (and still does)
quite the opposite: a source of hope, a guide to action, the
embodiment of reason, the solution to social problems, or the
path to happiness.

Utopias do, however, make assumptions about human nature, equality,
happiness, fulfillment and work which will hopefully be borne
out by the chapters to follow.

Some Utopians assume that people are inherently bad, and that they
need a 'state' to prevent society from breaking down in chaos.
Others maintain that people are inherently good and it is only
the existing 'state' that prevents them living in peace and
co-operation.   Some see the solution to social problems in the
pursuit of material prosperity, whereas others see it in austerity
and simplicity with equal status for all people.

Utopias generally reflect a social period or movement and are
frequently associated with times of social upheaval and therefore,
in many cases, they are based on the implicit correction of a
problem from a given period.   Furthermore, various versions,
themes or models can be seen to be put forward for solutions to
one particular social problem.   Thus, Utopia curiously is
rarely a very pleasant place to live for all.

But whatever the variety and confusion of Utopias throughout

the centuries, they all seem to be concerned with three main
relationships. Firstly, people's relationships with each
other, secondly, relationships with nature and finally, relation-
ships to their work.

In my opinion, the most decisive expression of Utopia in the
20th century has come from the medium of architecture.
Architecture already exists - it is tangible and therefore
people can relate to it. They can readily see how the archi-
tecture of our cities can cause social problems and therefore,
can readily see how new architectural solutions, visions or
Utopias can solve these social problems.

Hence, in the 20th century, Utopias can be better understood
and appreciated by the layman through the medium of architecture
than through that of a literary philosophy or manifesto.

Apart from the purely Utopian social or political ideas that are
conveyed through visionary architecture, artistic creativity
exists here in architecture's purist form - visions unfettered
by compromise unfold freely. Released from reality, the archi-
tects are no longer bound by the constraints of economics or by
the 'tastes' of their commissioners.

This creativity, as we shall see, can reside in a precise and
detailed drawing or in the vaguest most bizarre sketch or doodle.
Technique, manner of presentation, format, composition and handling
of line are all revelationary aspects of the visionary's intellectual
intent and to convey this I have felt it necessary to include some
buildings which exist outside the realm of the urban environment.

It is my intention, therefore, to discuss the nature of the visionary,
what the visionary has contributed in our century and just what
'paper architecture' is and can be.

Hopefully, the wide range that comes under 'urban visionary' will
be demonstrated. Moreover, it will be shown how, in our century,
many movements or periods, (architectural or otherwise), may be

better understood in terms of the aspirations and drawings of their visionary exponents.

CHAPTER 1

THE AESTHETICS OF REASON

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The history of the visionary is marked by independent thinkers
on one hand and by cohesive schools or doctrines of thought on
the other.

One would have to start with Tony Garnier (1869 - 1948) whose
Cite Industrielle (1904) set the stage for much visionary
architecture in subsequent years.

Garnier, a Beaux Arts student, spent much of his time at the
Academie de France in Rome, not studying antiquity but designing
the "Cite Industrielle".   The idea of architecture and urban
design as one unit, in the service of the modern industrial city
was in itself innovative enough at the beginning of the 20th
century.   Even more so was the way in which the young socialist
solved his self-appointed task and presented it.   (Fig. 1)

The clarity and rationality of Garnier's drawings reflect the
clarity and rationality of the concept.   The dominant elements
are the use of logic and reason apparent from the simplicity,
sobriety and lack of ornamentation of the buildings.   The
drawings, of a very high quality, are the result solely of the
need for factual communication: realism in the service of man.

"La Cite Industrielle" was published in 1917, and had Garnier been
as ambitious a self-publicist as some later visionary architects,
it might well have provided the model for planning in this century.

The city is designed 'realistically' in the sense that it is
related to natural topography and resources, and assumes contemporary
agriculture, industry and resources.   It has links with a national
rail and road network and the buildings themselves are in reinforced
concrete (then a realtively new material) and the designs are
buildable.
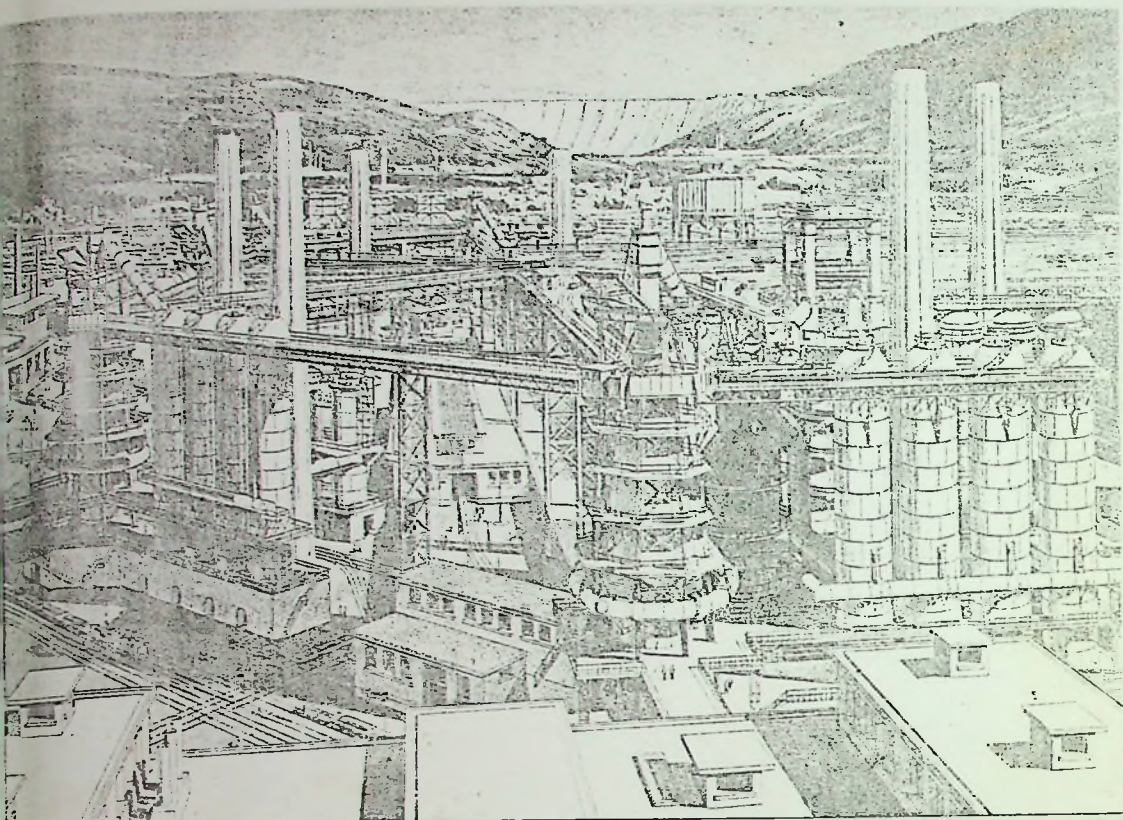
Fig. 1

However, instead of the confusion of functions in the 19th
century city, the Cite Industrielle is zoned into three main
areas.   These are an administrative area, an industrial zone
and a residential area, surrounding a cultural and sports centre.
Schools, in which boys and girls receive the same education,
are distributed among the housing, and the city has several
hospitals situated on higher ground.

Instead of the tension and competition of the old cities, Garnier
presents an image of order and relaxation, but not in an authori-
tarian or brutal fashion.   He has assumed that a socialist
revolution has come about which has made coherent logical planning
possible.   Moreover, he assumes that

> *a certain progress in social order*

has resulted in

> *an automatic adoption of rules for road use,*
> *hygiene etc. so that actual laws are not*
> *necessary.*

The city contains no law courts, prisons, churches or police
stations, because the new society, governed by socialist law,
would have no need of churches, and with the passing of capitalism,
there would be no more thieves, cheats or murderers either.

Garnier's city has all the facilities to be expected in a modern
city, concert halls, museums, libraries, exhibition halls, fire
stations and hotels, all publically owned and open to everyone.

One of the most striking features of his drawings though, are
that the city is inhabited, i.e. he depicts people, a concern is
shown for people and not just for buildings.   (Fig. 2 and Fig. 3).
By this he tries to show that alienation and ugliness are not the
inevitable consequences of industrialization, and that

> *the modern world was not incompatible with urban grace.*
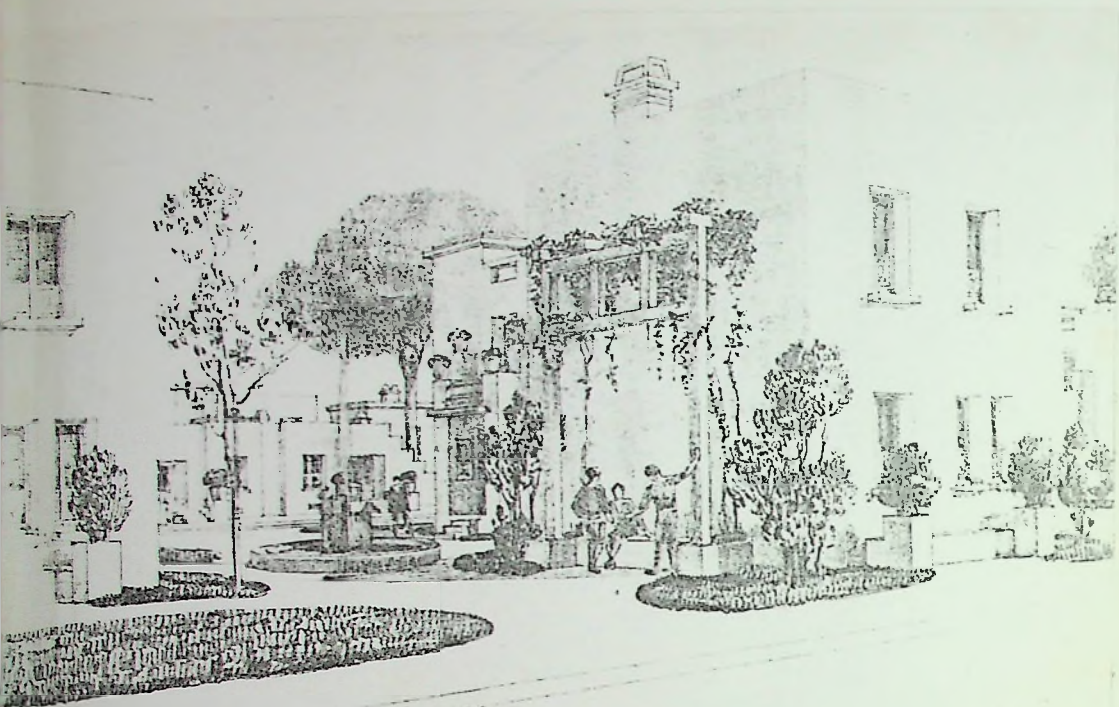
Fig. 2

Fig. 3

However, whereas Garnier sought to banish the alienation of the city, the Futurist architects in Italy seemed to have been inspired by it.

CHAPTER 2

THE METROPOLIS AND FUTURISM

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The Futurist movement was founded, propagated and financed
by the rich Italian poet, Filippo Marinetti.   The movement
proposed the total physical annihilation of traditional Italy,
to allow the emergence, through a 'universal dynamism', 'the
absolute force of matter' of a new modern, industrial and
pioneering Italy.

Futurism seems to have been characterised by cults of speed,
youth, movement, excitement, danger, aggression, energy and
chaos.

> *The world's splendour has been enriched by a*
> *new beauty, the beauty of speed,*

wrote Marinetti, in the Foundation Manifesto of 1909.

> *There is no more beauty except in strife.*
> *No masterpiece without aggressiveness.*
> *Poetry must be a violent onslaught upon the*
> *unknown forces, to command them to bow before*
> *man....*
> *Time and space died yesterday.   Already we*
> *live in the absolute, since we have already*
> *created speed, external and ever present.*
> *We wish to glorify war - the only healthy giver*
> *of the world - militarism, patriotism, the*
> *destructive arm of the anarchist, the beautiful*
> *ideas that kill, the contempt of women.   We wish*
> *to destroy museums, the libraries, to fight against*
> *moralism, feminism, and all opportunist and utilitarian*
> *meanness.*

The Futurists particularly disliked traditional cities: Venice,
Florence and Rome were 'three festering sores' but they praised

modern cities like Milan, and immersed themselves in the
fragmented and transient experiences of city life.

> *We shall sing of the great crowds in the*
> *excitement of labour, pleasure and rebellion;*
> *of the multi-coloured and polyphonic surf of*
> *revolutions in modern capital cities; of the*
> *nocturnal vibrations of arsenals and workshops*
> *beneath their violent electric moons; greedy*
> *stations swallowing smoke snakes, of factories*
> *suspended from the clouds by their strings of*
> *smoke; of bridges leaping like gymnasts....*
> *of broadchested locomotives pracing on the rails*
> *like huge steel horses.*

At the end of the first decade of the 20th century, it seems
that Futurism brought about the first definite shift in the
focal point of cultural and aesthetic production, away from
nature and the home, to the 'Metropolis'.

Futurists took the city as a point of reference, visualizing it
as a structure open to modification. Here, the active surface
of structures acted as a technical and social scenery for a now
irreversible segment of society. The Metropolis would be the
only real setting for an experimental existence for a way of
life based on a heroic existentialism.

Although the literary and artistic imagery of the Futurists was
inspired and generated through the Metropolis, it was not until
1914 that Marinetti gained the recruits capable of creating an
architecture for their 'Metropolis'. Antonio Sant'Elia and
Mario Chiattone were introduced to Marinetti after they exhibited
a series of drawings for a 'New City' (Cite Nuova).

The text for the designs was published by Marinetti a few months
later, thus establishing a relationship (only partly conceptually
justified) between the 'Cite Nuova' and Italian Futurism. (Figs. 4,5).
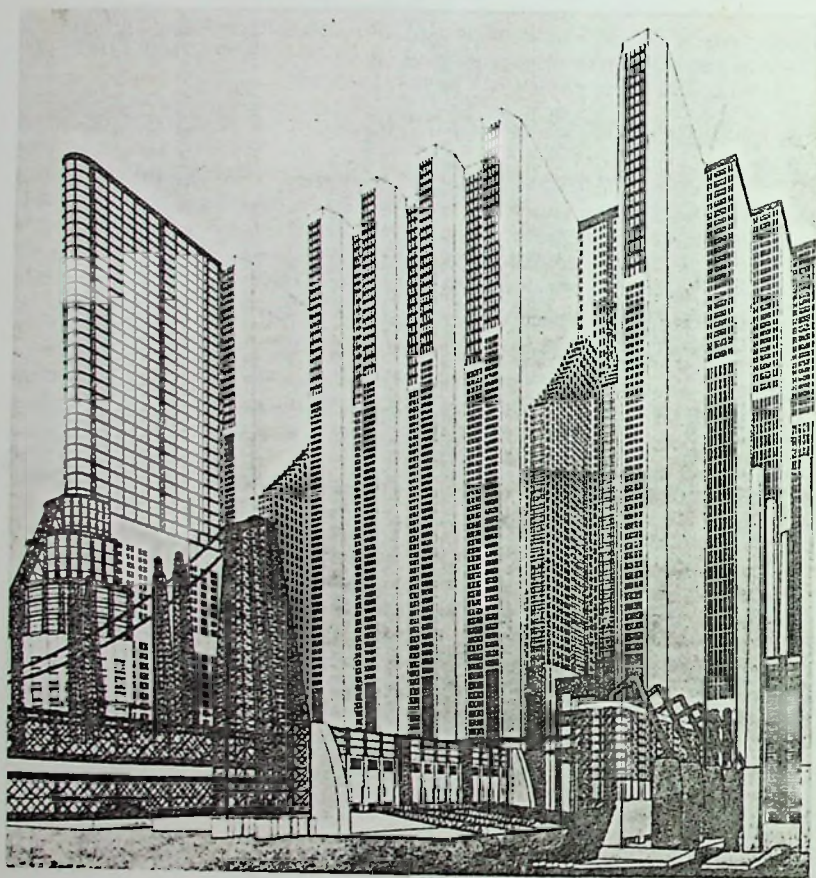
Fig. 4
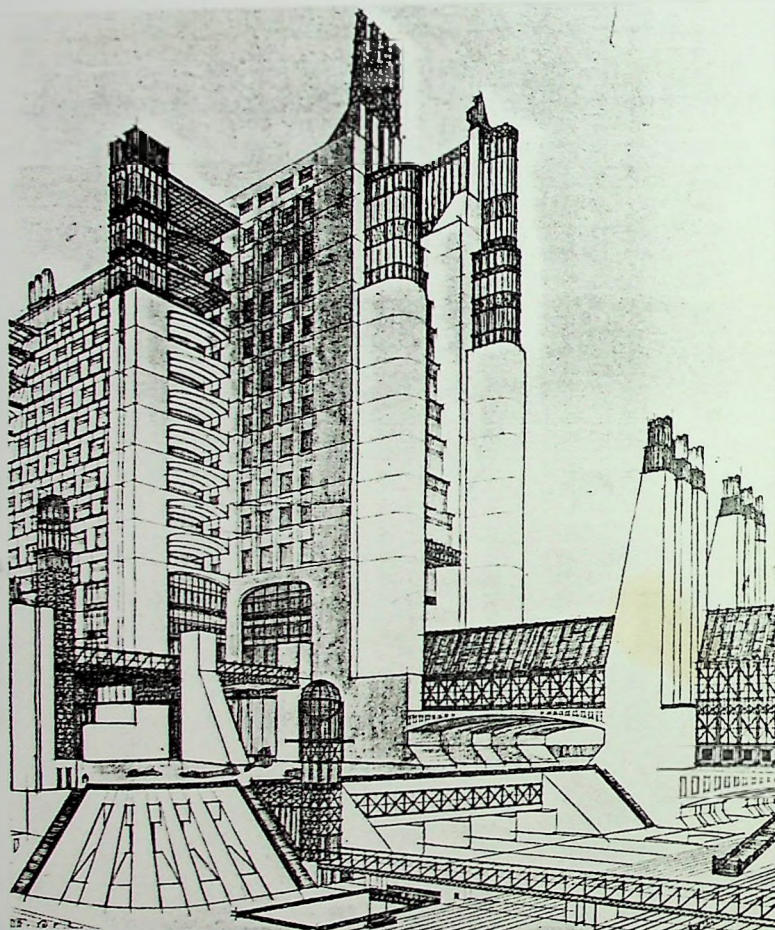
Fig. 5

Nevertheless, despite the loose idealogical connection, the
urban visions of Sant'Elia, especially are affected by the
cultural ambivalence of Futurism.   The trend at first seems
to be severely rational and functionalistic representations
are clear, factual and reduced to the bare essentials.   Still,
the "Citte Nuova" on a closer examination has undeniable romantic
and irrational elements.   'Modern life' acted out between bold,
towering skyscrapers on huge streets, with traffic routes
crossing on up to seven levels is nothing else but a heroic
myth of speed and the machine.   (Fig. 6).   The technical functions
of the buildings are given merely as aesthetic representation,
often the functions are totally supressed.   Flat rational perspec-
tives composed of thin strokes drawn with a ruler in a cold
objectivity, make no attempt to disguise their disturbing sensibility.

In Tony Garnier's opinion,

> *Industrial requirements will be responsible for*
> *the foundations of most new towns in the future.*

Garnier's understatement indicates his less radical and more
respectable position as a visionary architect.   His industrial
city differed from Sant'Elia's totally artificial environment
in that it was to preserve both a low-level intimacy of scale
and the inclusion of green spaces.   This is a concept that is
certainly closer to our taste now, and a far cry from Sant'Elia's
deliberate exclusion of any reference to nature and it is signifi-
cant that the drawings of the new city usually exclude any suggestion
of human presence.   When tiny figures do appear, they are merely
an indication of the huge scale of the buildings rather than as
human measure.

The apparent similarity between Sant'Elia's statement of intent to
invent the Futurist city like a gigantic machine and Le Corbusier's
phrase

> *une machine a vivre*
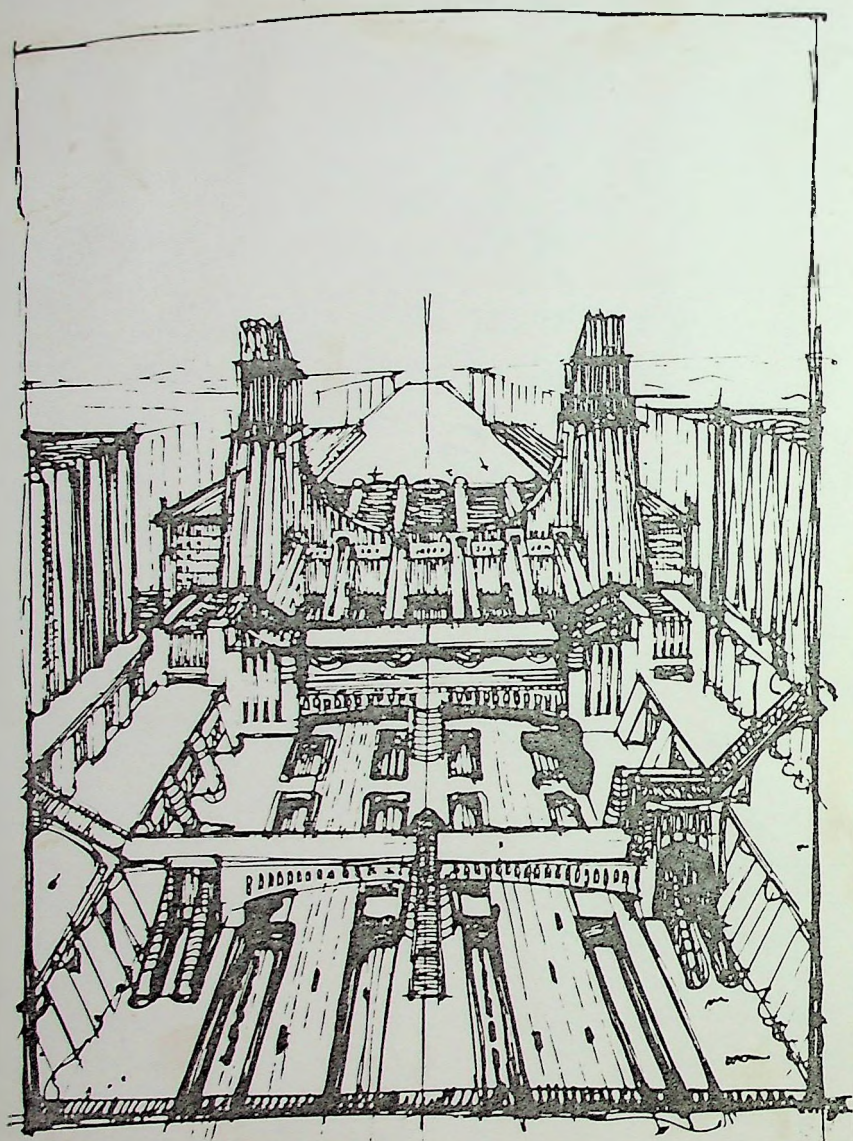
Fig. 6

has been seized upon with rather too much alacrity, Le Corbusier's machine was to be based on the smooth running and convenience, while for Sant'Elia, the habitation was to be an extension of the sensory bombardment of factory life and of the excitement of the city. This was to be high density living. Every bit of space was to be utilized and more space gained by raising transport levels, underground and roof top buildings.

Special attention was given to the Sci-fi concept of airport atop railway stations, sophisticated underground rail networks. Lifts too, were elevated into status. They were no longer to hide in stairwells but

swarm up the facades like serpents of glass and iron.

No ground plans exist for the New City and Sant'Elia gave no indication of how the interiors of his gigantic machines were to be arranged. This reinforces the impression that even for him the 'New City' was a dream and not a practical reality.

Futurists' architecture was to experience a crisis in its function and message. Faced with the impossibility of containing urban growth within a unity for form (its propogation) and at the same time incapable of conceiving a city without its 'architecture', Futurists resorted to the creation of a sort of point system of conventional architectural signs within the urban system, that no longer have any real continuity with their original concept of the city.

Therefore, the theoretical limitations of the Metropolis (space, limit and judgement) became an impediment for a new solution to the problem of the city, which was urban growth.

Futurism left a political and social legacy that contributed, through its leader to the growth of Rationalism and Fascism. Marinetti fostered Sant'Elia's and Chiattone's reputation in the hope that their work might be the foundation for a Fascist architecture.

However, the drawings have exerted their influence, not as symbols of Fascism, but as symbols of the 'machine age' and the images of Sant'Elia and Chiattone have haunted devotees of high technology to the present day.

CHAPTER 3

A MEANS OF EXPRESSION

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At the end of the war in which St. Elia died, the visionary
flowered in Germany in a burst of architectural expression
that derived, ambiguously from both the optimism and despair
that marked the years, 1918 - 1923.   It could be maintained
that, although the movement was comprised largely of architects,
whose projects ranged from monuments to vast terrestial and
even extra-terrestial planning, the thrust was primarily a
literary one as if the drawings (often, like paintings)
were meant to be illustrations of social, political or
literary manifestos.

Expressionist architecture which emerged largely independently
in a number of places, found a rrystallization point in the
Arbeitsrat für Kunst, formed in 1918 under the leadership of
Bruno Taut.   In March 1919, they published their manifesto in
Berlin:

> *Art and the people must form a unity.*
> *Art shall no longer be the enjoyment of the*
> *few, but the life and happiness of the masses,*
> *and they must aim at the alliance of the arts*
> *under the wing of a great architecture.*

Taut's 1919 book "Alpine Architektur" was dedicated to his friend,
Paul Scheerbart, whose glass architecture was a major Expressionist
influence.   Glass for Scheerbart had mystical and transcendental
qualities, including the power to transform the world and generate
a new morality.   He wrote,

> *A person who daily sets eyes on the splendours*
> *of glass cannot do wicked deeds.*

In his book, Taut suggested an 'Alperbau' to transform the entire

chain of mountains from the Northern Italian lakes to Monte
Rosa into a fairy tale landscape of glass sanctuaries and crystal
monuments.   He then proposed to extend the action to every
continent and even into the cosmos.   (Fig. 7)

His drawings are a striking mixture of clumsiness in detail
and expertise in creating a particular mood and general impression.
In this regard, a comparison can be drawn between Taut and
Sant'Elia.   Sant'Elia's renderings also lacked detail but the
impression that they create is overpowering, albeit very different
from that of Taut.

The insistence that

> *art should no longer be the pleasure of the few,*
> *but the happiness and life of the masses*

makes the drawings intelligible to the layman.   They are logically
close to the bubble cartoons which had been popular in the United
States since the turn of the century.   But Taut's 'noble cartoons'
never give way to pragmatism at the expense of artistic quality!
The lively sheets and delicate colours radiate a refreshing and
magical image in a true expressionist sense.

The circle around Taut, which had already formed by the end of
1919 in the Utopian correspondence of the 'Glaserne Kette' (The
Glass Chain), included many painter-architects, who throughout
their lives never built at all.   Among them were Wenzel Augest,
Hablik, Hans Scharoun and Hermann Finsterlin, the most prominent
creator of purely utopian fantasies among the Expressionists.

Finsterlin was not so much interested in function or construction:
he was concerned with the primary aesthetic visions of an
'imagery architecture'.   A painter rather than an architect,
Finsterlin attempted to evolve forms of the earth in order to
create a second artificial nature.

> *Forms which lie between the crystalline and the*
> *amorphous.*
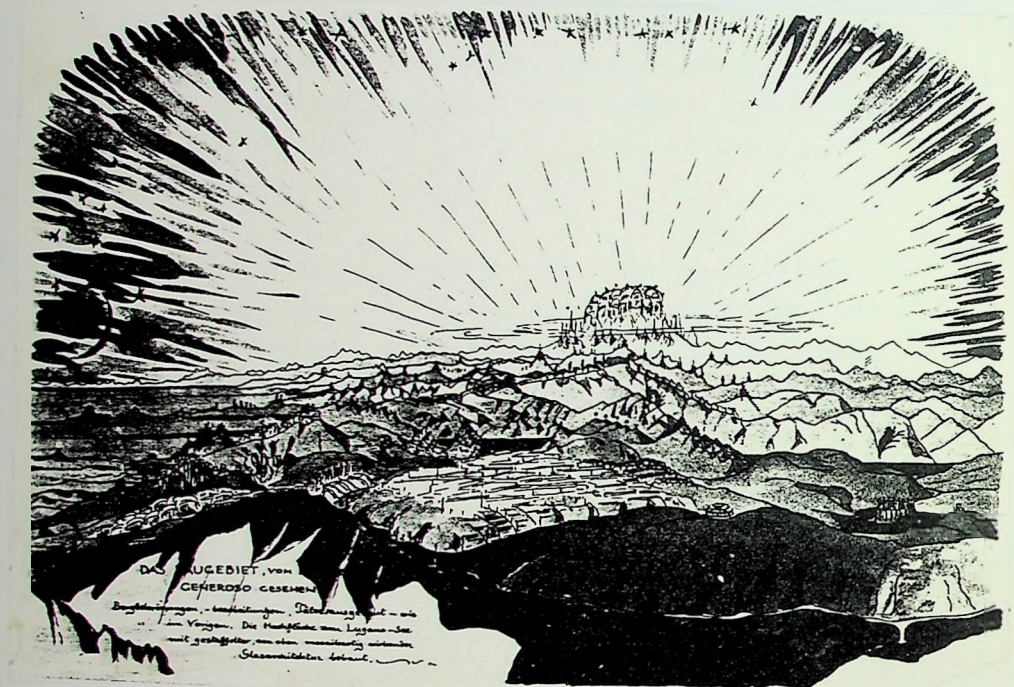
Fig. 7

In his drawings, most of which date from between 1916 and 1923, outstanding are the gentle watercolours which help to display a fantastic variety of organic forms (reminiscent of Salvador Dali). Characteristically, the more frequent themes include isolated artists' studios or religious buildings. Some of the early drawings are related to mythological subjects such as 'Atlantis'. Illustrations (Fig. 8, 9) indicate that his forms exist outside the realm of functional practicality and are purely expressive.

Hablik, like Finsterlin, was fascinated with nature and also had nothing built! His work reflects a preoccupation with an inner self and his illustrations evoke a metaphysical image. (Fig. 10).

In his 'Schaftende Krafte' (Flying Colonies) an amalgam of fantasy and reality, where technical problems were solved in his dreams, he proposes a means of 'enlightenment'.

> *This*, he says, *is more possible in a physical journey than in a spiritual one.*

Not unlike other Expressionists, Hablik envisaged an environment that would stimulate the creative force of man. This could be erected, he maintained, by an army of workers almost instantaneously, by putting technology to positive use.

> *May a new spirit in architecture emerge and the accompanying etchings, resprentative of my life's work, rouse those of similar conviction and reach those without.*

Among the Expressionist architects of post World War I, Hans Scharoun is notable in that he was able to carry out important large buildings after World War II in the same city of Berlin that was the setting of so much fervour and visionary dreaming around 1920. In Scharoun's buildings, the organic architecture of Expressionism comes full circle after the shattering years of political dictatorship and war in Germany.
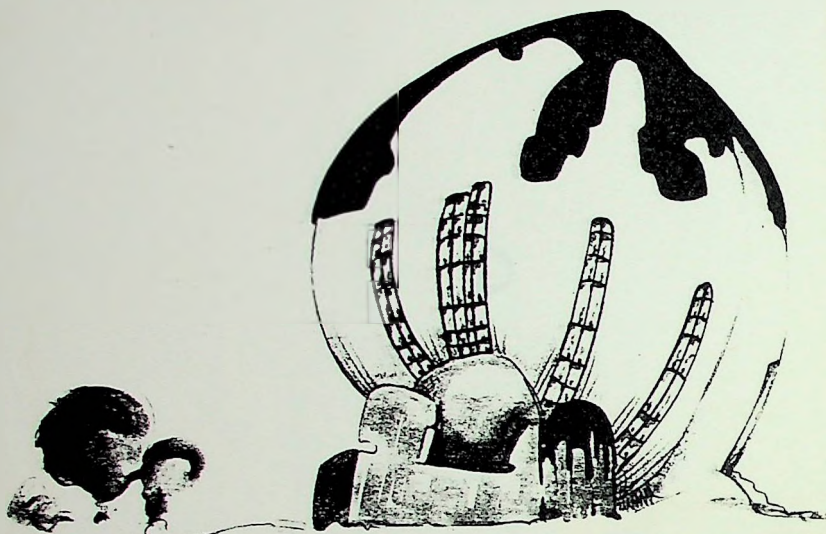
Fig. 8
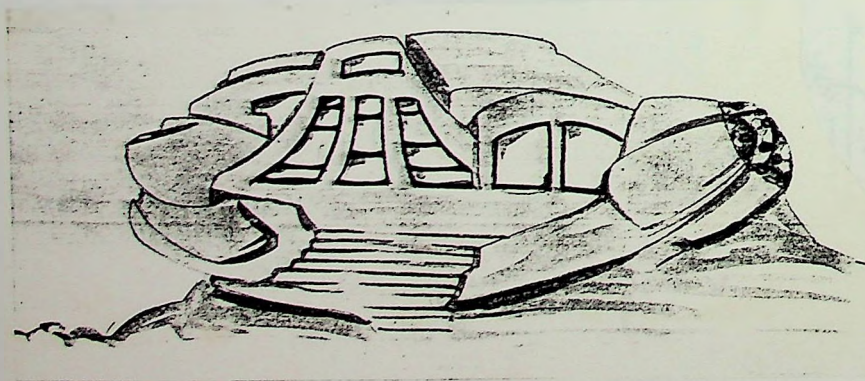
Fig. 9
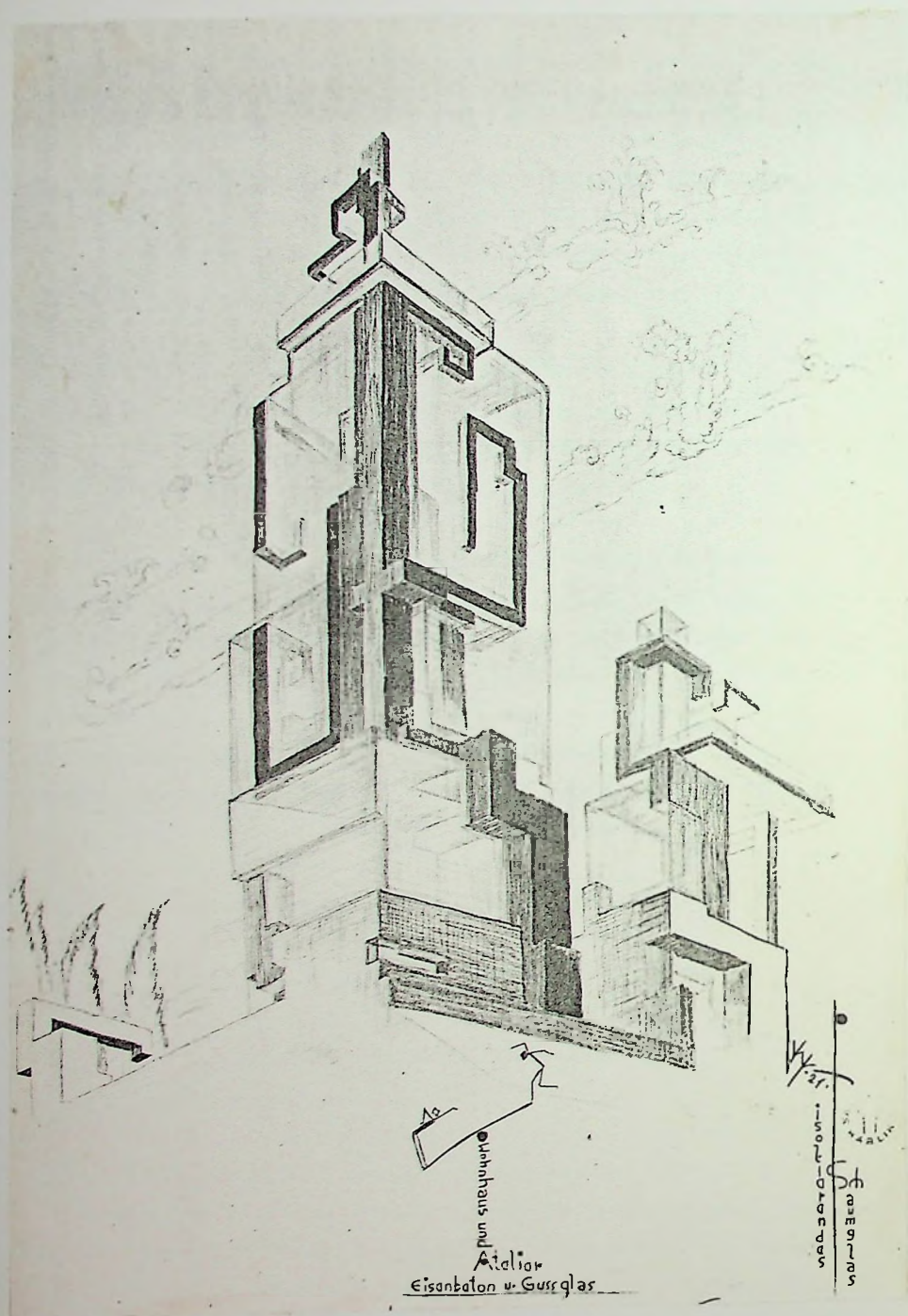
Fig. 10

Although he never seems to have thought himself as anything but
an architect, he chose a medium and style to express his
scheme for buildings in a Utopian future that had little to
do with the drafting room.   (Fig. 11)   His visionary work,
while being a member of the 'Glaserne Kette' is indicative of
a latent organic tendency, with forms striving dynamically in
all directions and unfolding crystalline structures.

It seems that Scharoun was turning against the 'Botanical
Labyrinths' which Finsterlin, among others, was cultivating,
when he joined 'Der Ring' in 1926, to which Mies van der Rohe
and Erich Mendelsohn also belonged.

Generally referred to as an Expressionist, Mendelsohn never
applied the term ot himself, seeing it as an extreme (which he
rejected).   Nevertheless, the sketches which Mendelsohn made
between 1914 and 1917, and then suppliemented with a new series
after 1919, have an abstract and symbolic force which is hard
to surpass.   (Fig. 12).   The various themes: factories,
observatory, religious buildings always have a dynamic quality
and the spontaneity of line embellishes the form.

Unlike some other Expressionists, Mendelsohn thought,

> *The primary element is function,*

although

> *function without sensibility remains mere*
> *construction.*   (Fig. 13)

Thus, the 'Einsteinturm' which he built between 1917 and 1921
in Postdam as a literal translation of the architectural language
of his 'Visionary' sketches, remains unique, for it was the only
'Visionary' work of Expressionism to be realised.   (Fig. 14).
Mendelsohn stated in 1926:

> *Architectural visions, having no real existence,*
> *they are mere notes of space and time, three-*
> *dimensional and rhythmic expressions of our age's*
> *material and mental propensities.*
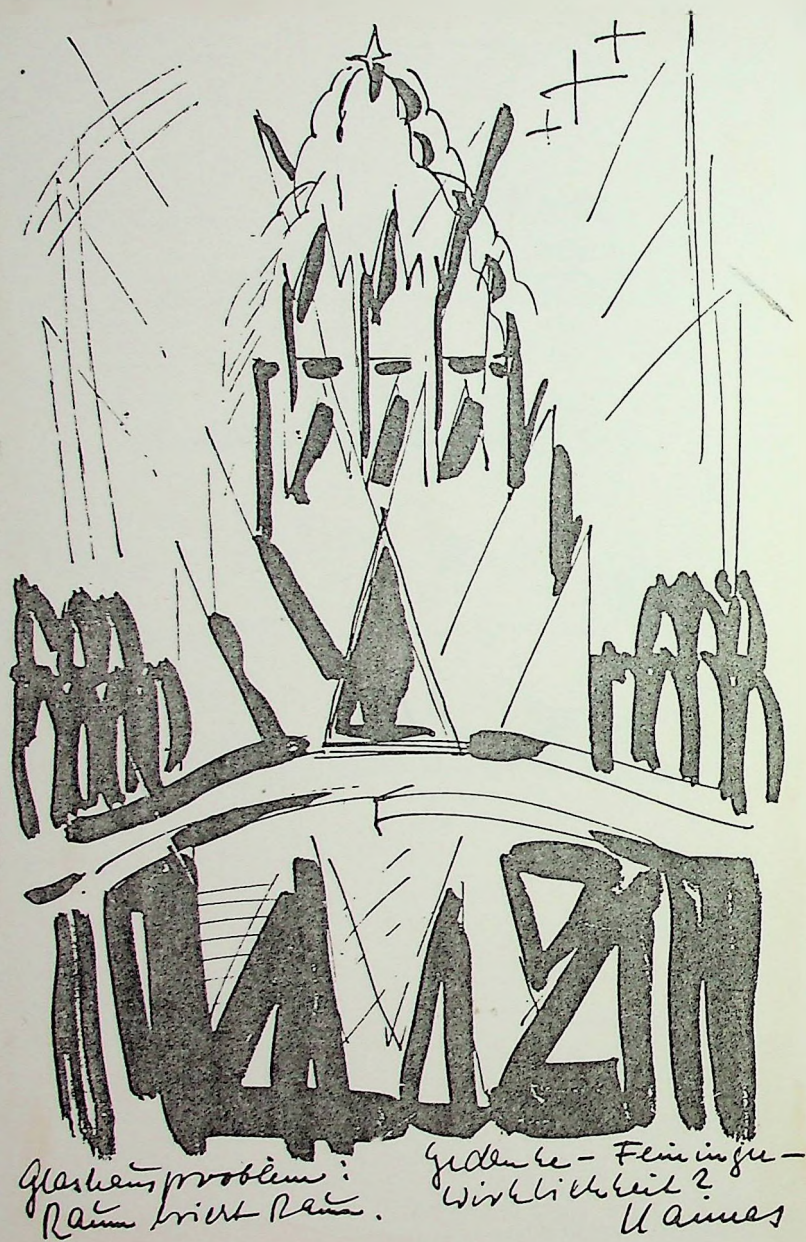
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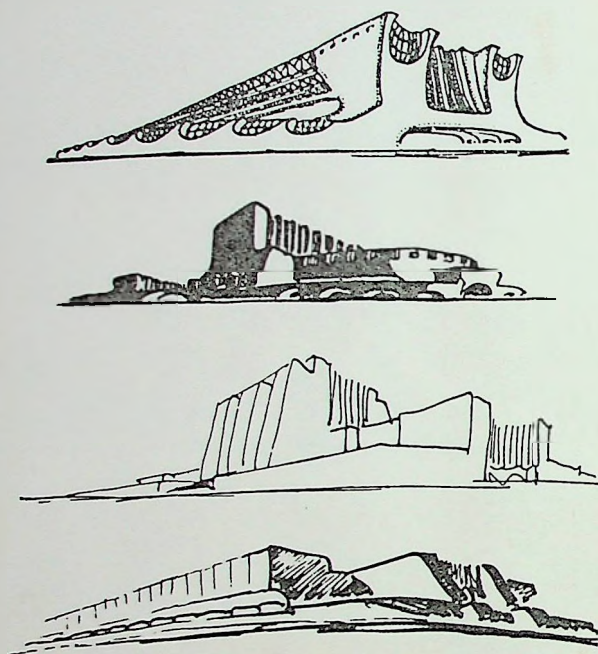
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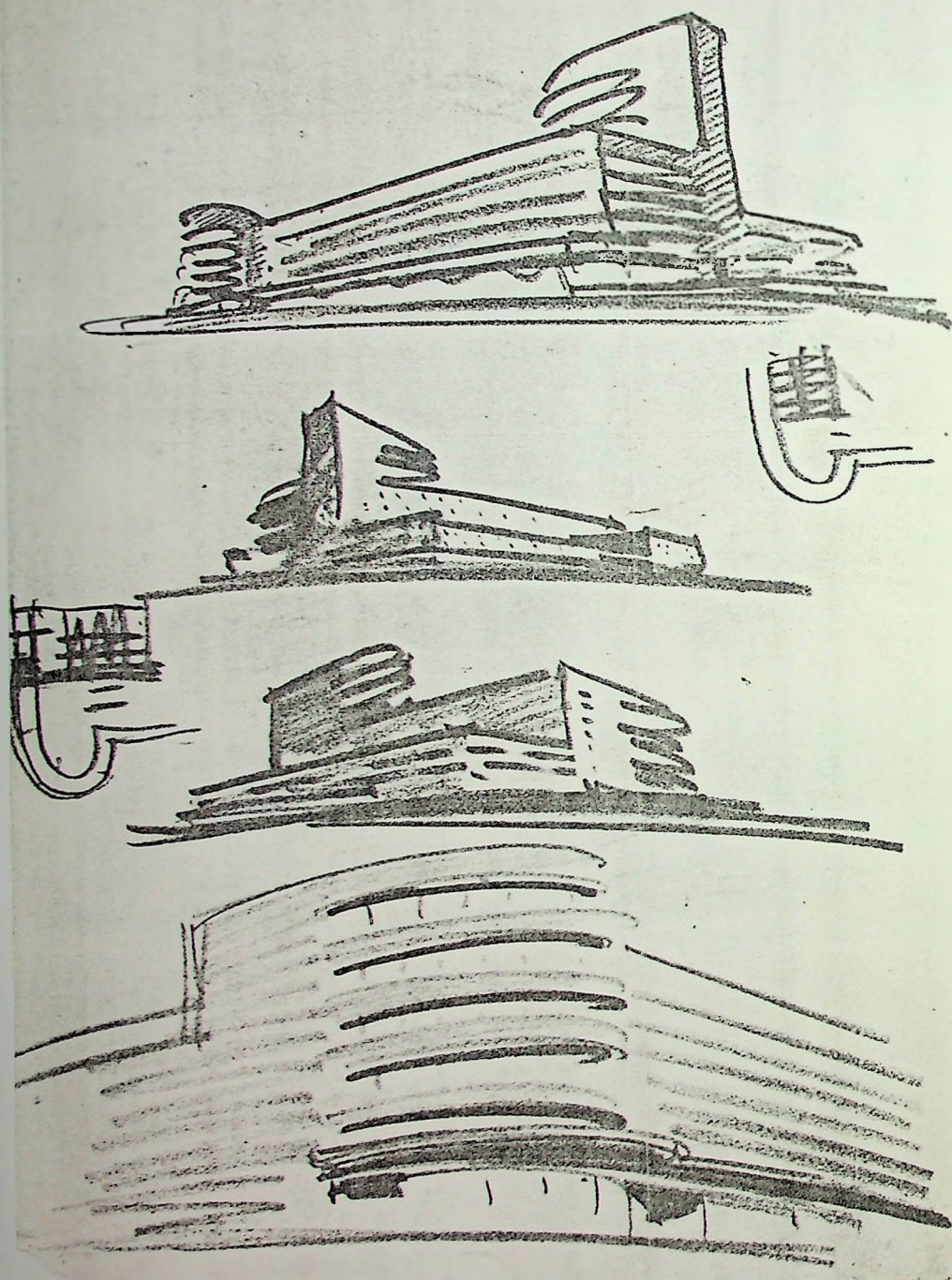
Fig. 13

Fig. 14

Ludwig Mies Van Der Rohe, in the early twenties, could be con-
sidered an Expressionist by virtue of his sheer obsession with
glass in his visionary drawings, even if they were more practical
proposals.   (Fig. 15).

Mies himself described the intention of the 'Glas-Hoch-Haus'
(Glass Skyscraper) in Bruno Taut's Magazine "Fruhlicht", 1922.

> *Skyscrapers reveal their bold structural pattern
> during construction.   Only then does the gigantic
> steel web seem impressive.   When the outer walls
> are put in place, the structural system, which is
> the basis of all artistic design is hidden by a
> chaos of meaningless and trivial form.   We can
> see the new structural principles most clearly
> when we use glass in place of the outer walls,
> since in a skeleton building these outer walls
> do not actually carry weight.*
>
> *The use of glass imposes new solutions...*

Mies' drawing for 'Glas-Hoch-Haus' (1921 -22) was then perhaps
the most prophetic of what the urban skyline would look like in
the late 20th century.   (Fig. 16)   But it should be stressed
that Expressionists were not so much interested in prediction
as they were about perception.

More than almost any other architectural movement, Expressionism
was a feature of its age, limited in time, which soon burned
itself out.   But again, almost more than any other, it was and
still is determined by its protagonists and personalities so that
the short-lived passionate outbreak is overlaid by a coherence
and continuity.   It found a wide variety of exponents, including
Paola Soleri and Peter Cook, whose work will be studied later.
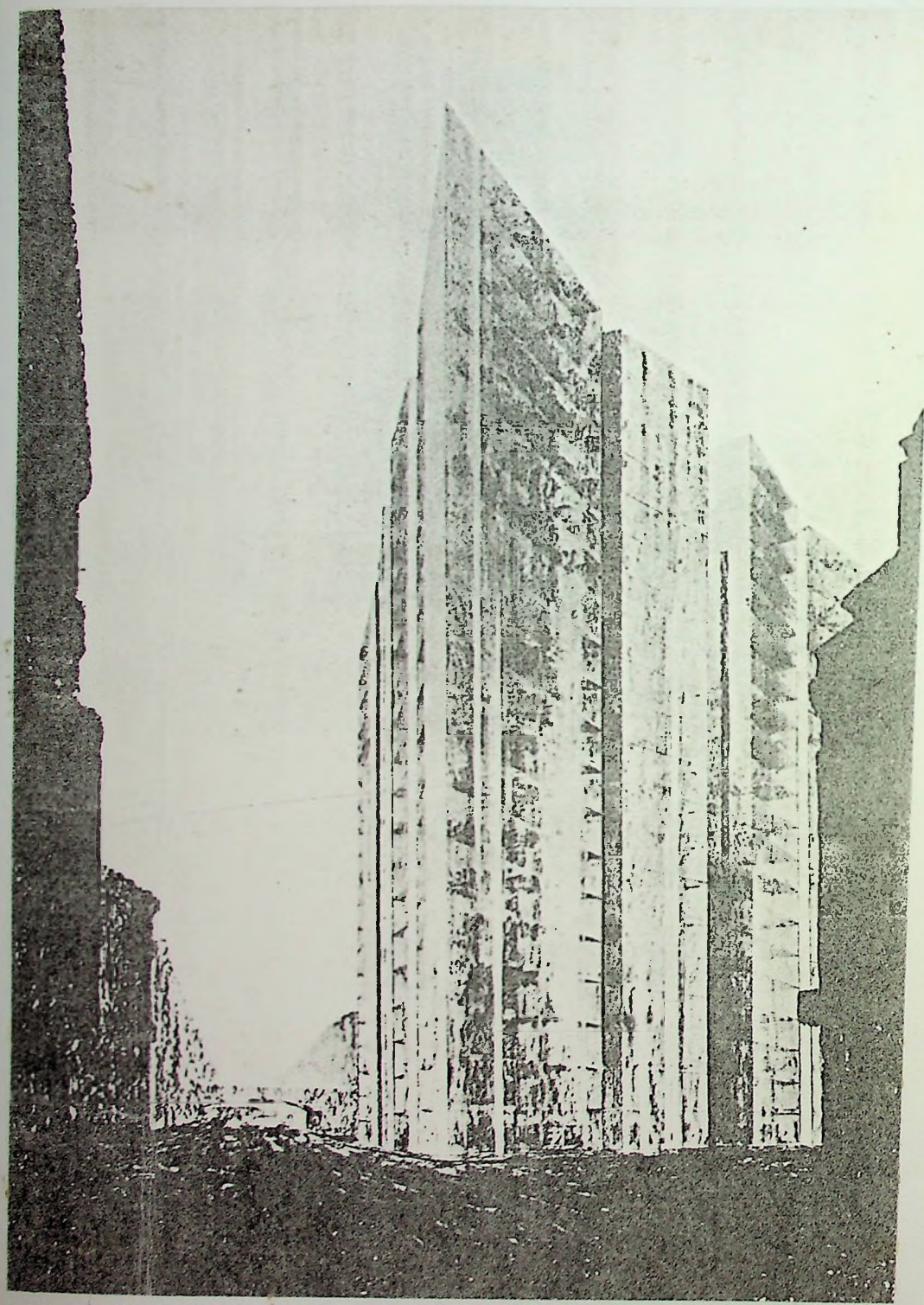
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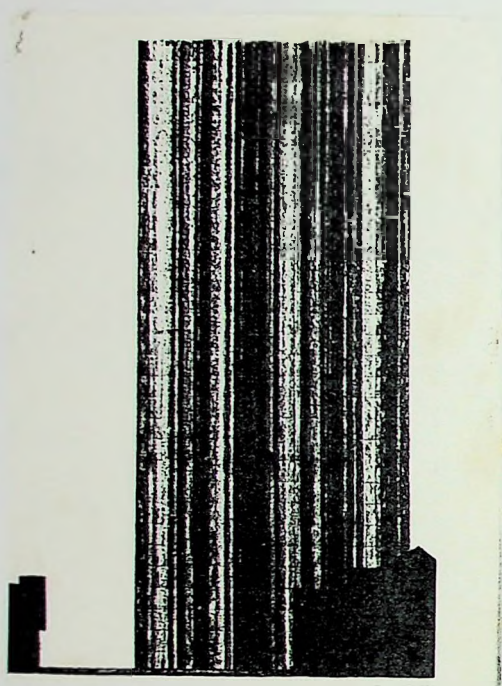
Fig. 16

CHAPTER 4

CONSTRUCTIVISM WITHOUT CONSTRUCTION

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CONSTRUCTIVISM WITHOUT CONSTRUCTION

Following the October Revolution, Soviet architecture of the
1920s emerged in a post revolutionary atmosphere, encouraging
dogmatic assertions about the supposed 'truth' of the modern
city to the new social order.   Creative individuals were faced
with the awesome task of formulating an architecture which was
supposed to express not so much the values of an existent order
but one that ought to emerge from the progressive attitudes of
the Revolution.

The period after 1917, therefore, presented new possibilities of
expression which could be seen most clearly in the projects of
the Constructivists.   It was a time of frenzied visual experi-
mentation in which ideas tended to exist more on paper than
anywhere else.   This was natural, given the confused economic
circumstances of the years up until 1924, in which building was
all but impossible.   It was a time which encouraged impractical
Utopianism.   The need to destroy all links with the revolutionary
past brought problems for the architect seeking a visual language
of expressionism appropriate to ideas.

A sense of the new orientation in Russia is to be gleaned from
Vladimir Tatlin's paper project for a "Monument to the Third
International".   (Fig. 17)   The vast spiral tower, taller than
the Eiffel Tower, was to be functional as well as symbolic.
It contained chambers, one above the other.   By means of special
machinery, they were to be kept in perpetual motion, but at
different speeds.   The lowest chamber, a cube, for legislative
purposes, was to turn on its axis once a year.   The chamber above
this was a pyramid, made one revolution a month and was for meetings
of assemblies and executive bodies.   Finally, the third and
highest part, a cylinder, turned once a day and would be used chiefly
for administration and propaganda, forming an early multi-media
communications centre.   The diagonal spiral of the enclosing
structure was intended to be 'symbol of the modern spirit of the age.
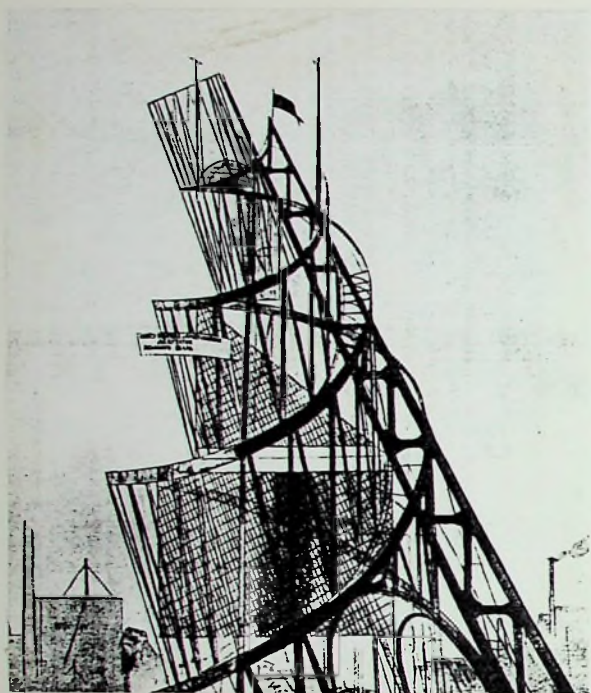
Fig. 17

On the one level, Tatlin's Tower was a monument to the constitution
and function of the Soviet state.   On the other hand, it was
intended to exemplify the Constructivists programme of considering
'intellectual materials' such as colour, line, plane and physical
materials, such as iron, glass and wood as thematically equal
elements.   In this respect, the tower was not only a utilitarian
object purely, but a monumental metaphor for harmony and social
order.

In the early 1920s many of the Constructivists made their work
known through architectural competitions.   The most important
of these in relation to the emergence of Constructivism was the
competition for the 'Palace of Labour'.   Held during the years
1923 - 24, the competition was the first to involve a building
that would not only be the country's main public edifice but
would also help to determine the path of Soviet urban architecture.

However, official taste prevailed and the prize was given to a
Soviet entry by B.M. Iofan and N. Zitotrovsky.   (Fig. 18).
This was an ostentatious and banal 'wedding cake' building in the
form of a stepped mausoleum, surmounted by a colossal statue of
Lenin.   The result of the competition had obviously pointed to
severe problems of communication between the perceptions of the
Constructivists and the values of a mass culture as envisaged
by a centralized state.

Of far more importance was the entry submitted by the Vesnin
brothers.   (Fig. 19)   The development of Soviet architecture
throughout the ten year period from 1922 - 1932 owes a great deal
to the Vesnin originality.   Their 'Palace of Labour' stood out
from the rest because of the freshness of its exterior, the
clarity and rationality of planes and composition in space and
volume and the bold use of state-of-the-art construction materials.
The project was later classified as

> *The first milestone of true Constructivism.*

As with many of the Vesnin brothers' competition entries, their

Fig. 18

Fig. 19
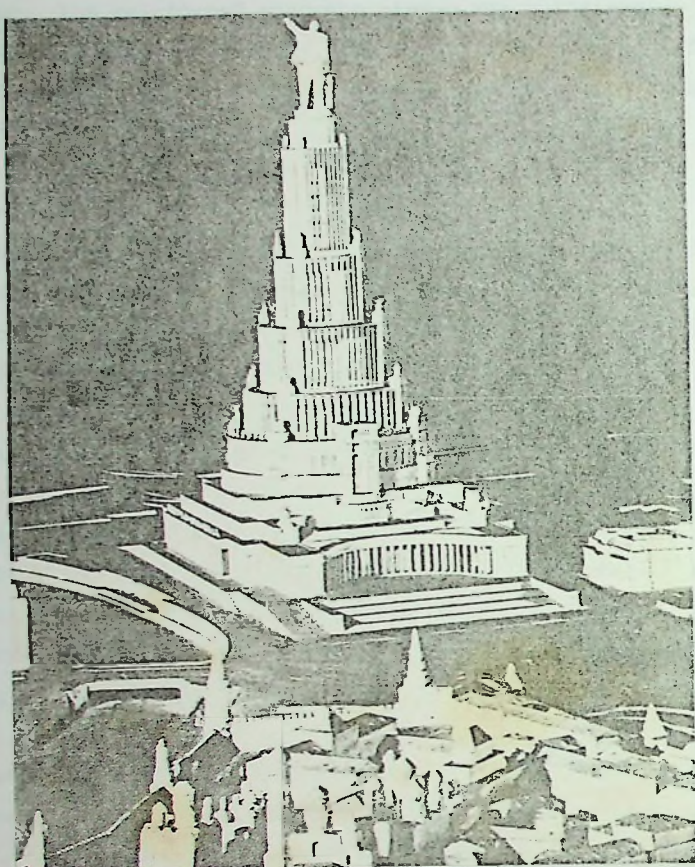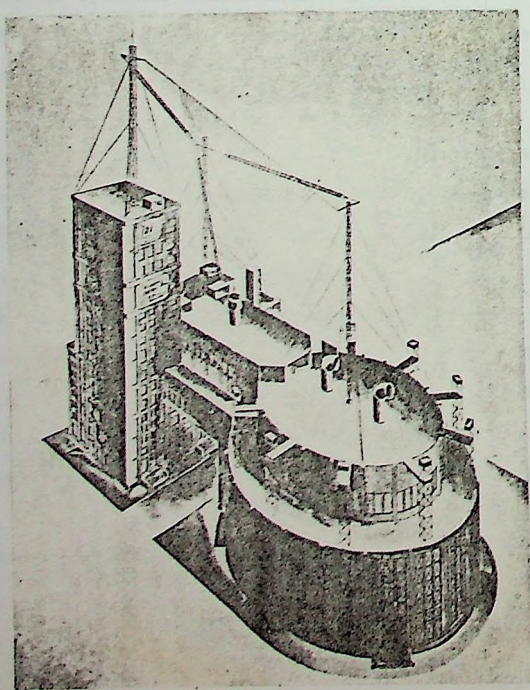
work expresses, again and again, a communal building, brutal
sometimes, the reinforced concrete giving the buildings a
'massive' prescence.   However, their work tried to identify
the underlying meaning of the new, social programme by translating
it into aesthetic forms.

Lissitzky, another major contributor to the Constructivist
movement in post-revolutionary Russia, constructed many models
for a new kind of weightless architecture.   His most dramatic
attempt at an antigravitational form was his 'Wolken Bougal'
or 'Cloud Hook' proposal of 1924.   (Fig. 20).

In comparison to the American skyscraper, the innovation here
resides in the fact that the utilised space which is horizontal
is clearly separated from the "service and support" space, which
is vertical.   Therefore, he perceives an anti-skyscraper which
was designed to be read and understood from many different aspects.
The structures were to be elevated above the main thoroughfares
leading to the Kremlin.

The concept as a whole constituted a so-called suprematist-
elementarist composition, kinetic syntax being a fundamental
aspect.   The suprematist elements of Lissitzky's work, therefore,
attempted to combine utilitarian components with abstract forms,
unlike the Expressionists, who seem to have been preoccupied
with the latter.

One of the major proponents of true architectural fantasy at
this time was Ivan Chernikov.   His illuminating buildings and
constructions (which rarely went beyond the drawing board) were
based on the idea of instinctiveness.   This instinctiveness,
although seeming unsystematic, was believed to be crucial to
constructive principles.   (Fig. 21).   His compositions are
complex, both spatially and volumetrically, steeped in abstraction
with particular attention given to colour harmony and they have
a similarity to Erich Mendelsohn's Expressionist works.

Chernikov applied his talents to a full range of social buildings
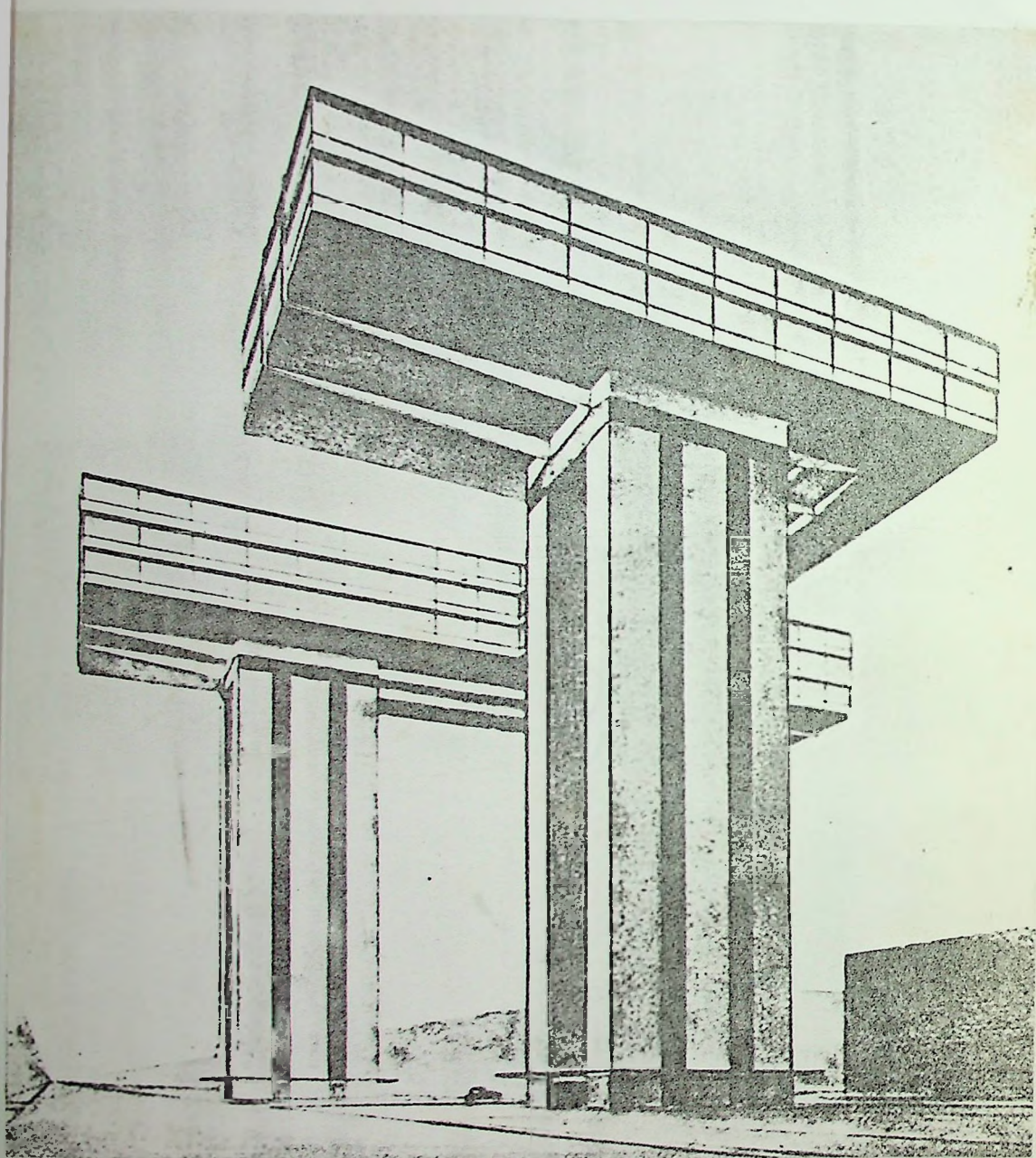
Fig. 20
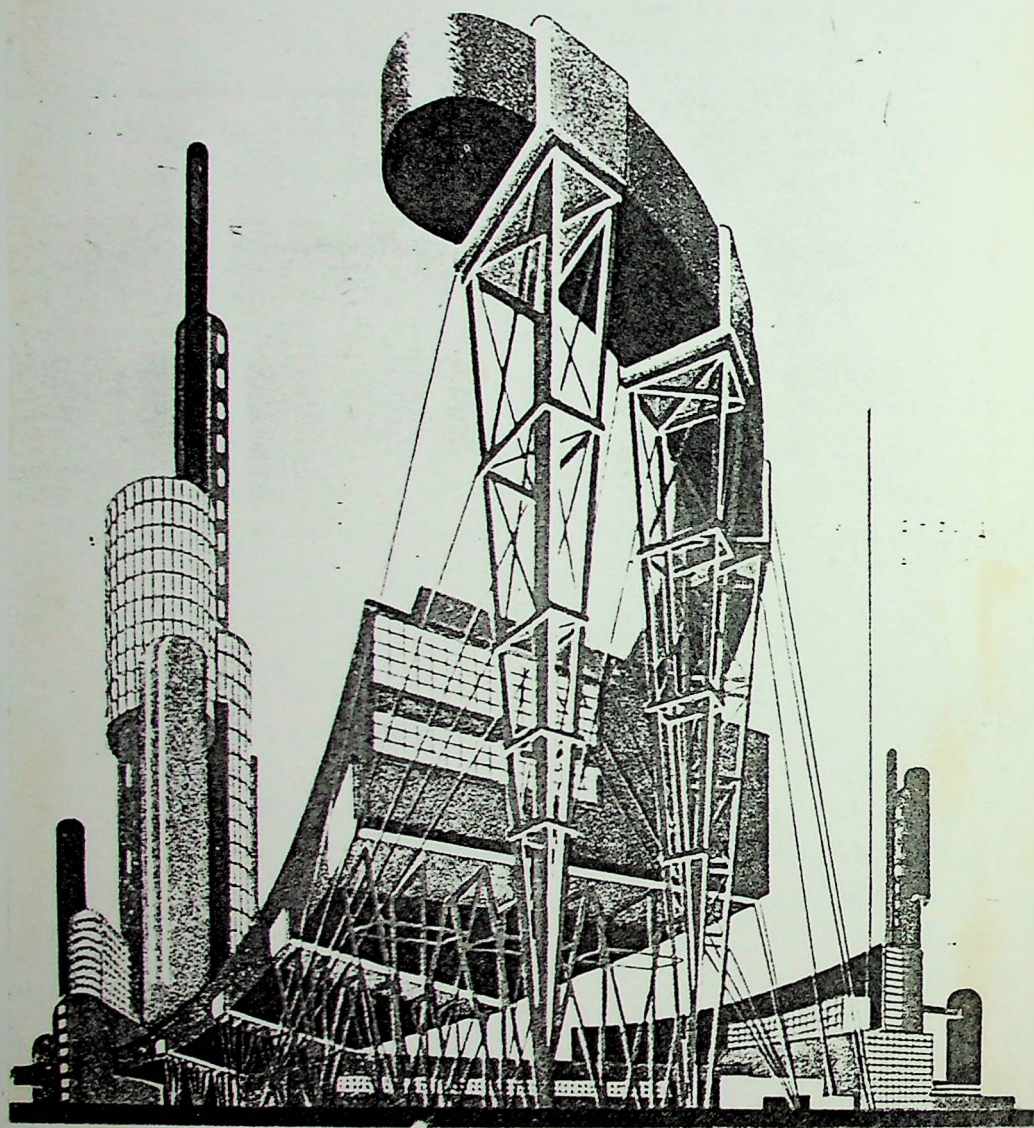
Fig. 21

as well as designs on an industrial theme. His artistic
imagination tried to work hand-in-hand with economic re-organisation
in the generation of a new visual and spatial culture. Again,
one is left guessing how Chernikov might have translated these
fantasies into material form, especially when (unlike the
Expressionists) he stressed importance on the practicality of
construction. (Fig. 22).

Not all Soviet architects were concerned with the construction of
monuments and buildings alone, during this period. Architects
were faced with the real problems of socialist building on a
massive scale. The problem of an ideal Communist city pre-
occupied Russian architects in the 1920s. Many gave thought
to town planning or even the spatial re-organisation of the
countryside. Of the various models adapted from the West,
the Le Corbusier Linear City is perhaps the most pertinent
because it fused together the means of production with networks
of power and circulation.

Social condensers and family dwellings could be distributed evenly
in parallel bands to the main routes. The linear non-hierarchal
character of such a city was felt to be particularly appropriate
to the aspirations of its inhabitants, which were that all people
should be equal. (Fig. 23). This linear form was adopted in
the design of the new city of Magnitogarsk in the early 1930s.

We can see now that very few Constructivist constructions were
built and remain as two-dimensional Utopias. When building did
finally commence, the problems of state interference continued.
Even Iofan's design for 'The Palace of Labour' was modified
by Stalin himself.

By 1932, many of the Constructivist architects left , were
marshalled under state control and either left architecture altogether
or else immersed themselves in the official but uninspiring doctrines
of realism. Stalin ensured the reversion to eclectic, overscaled,
monumental neo-classicism.
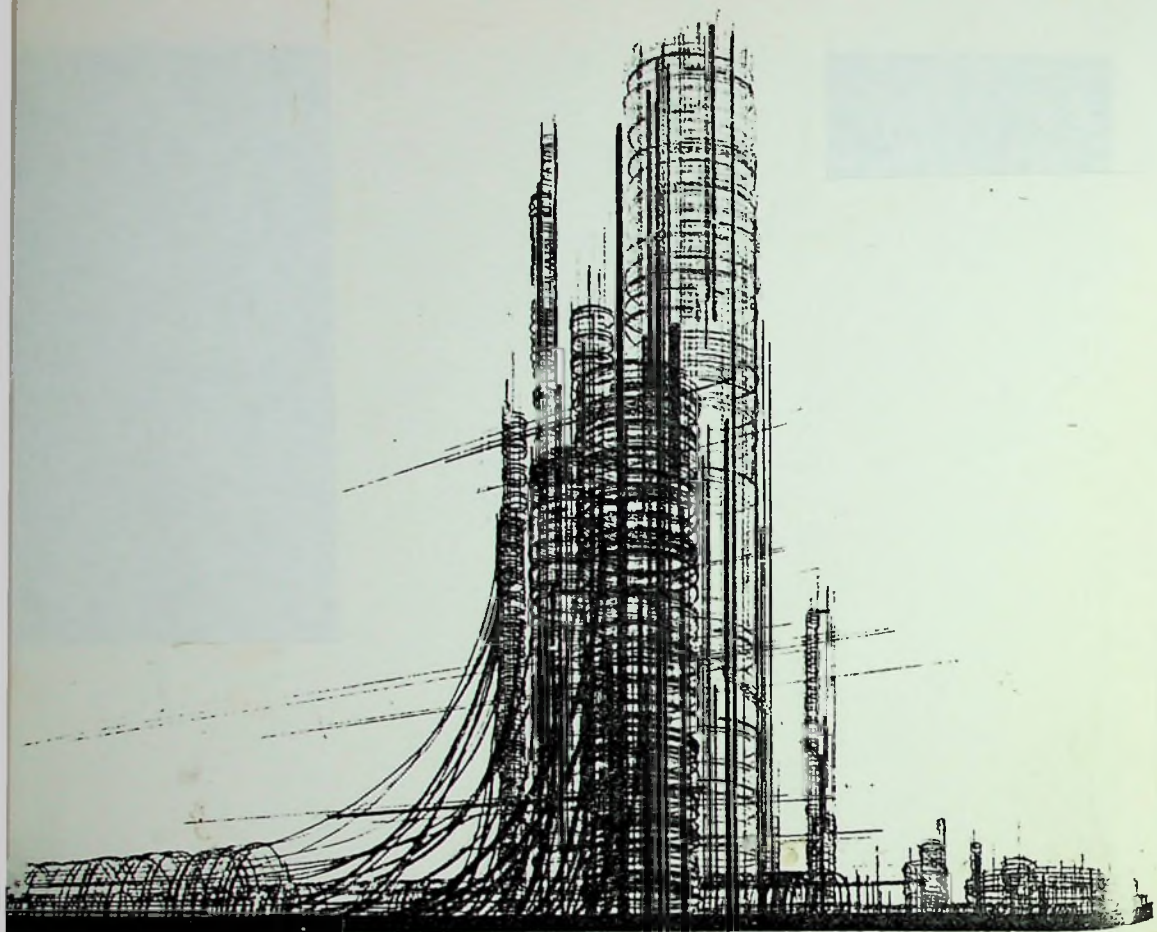
Fig. 22
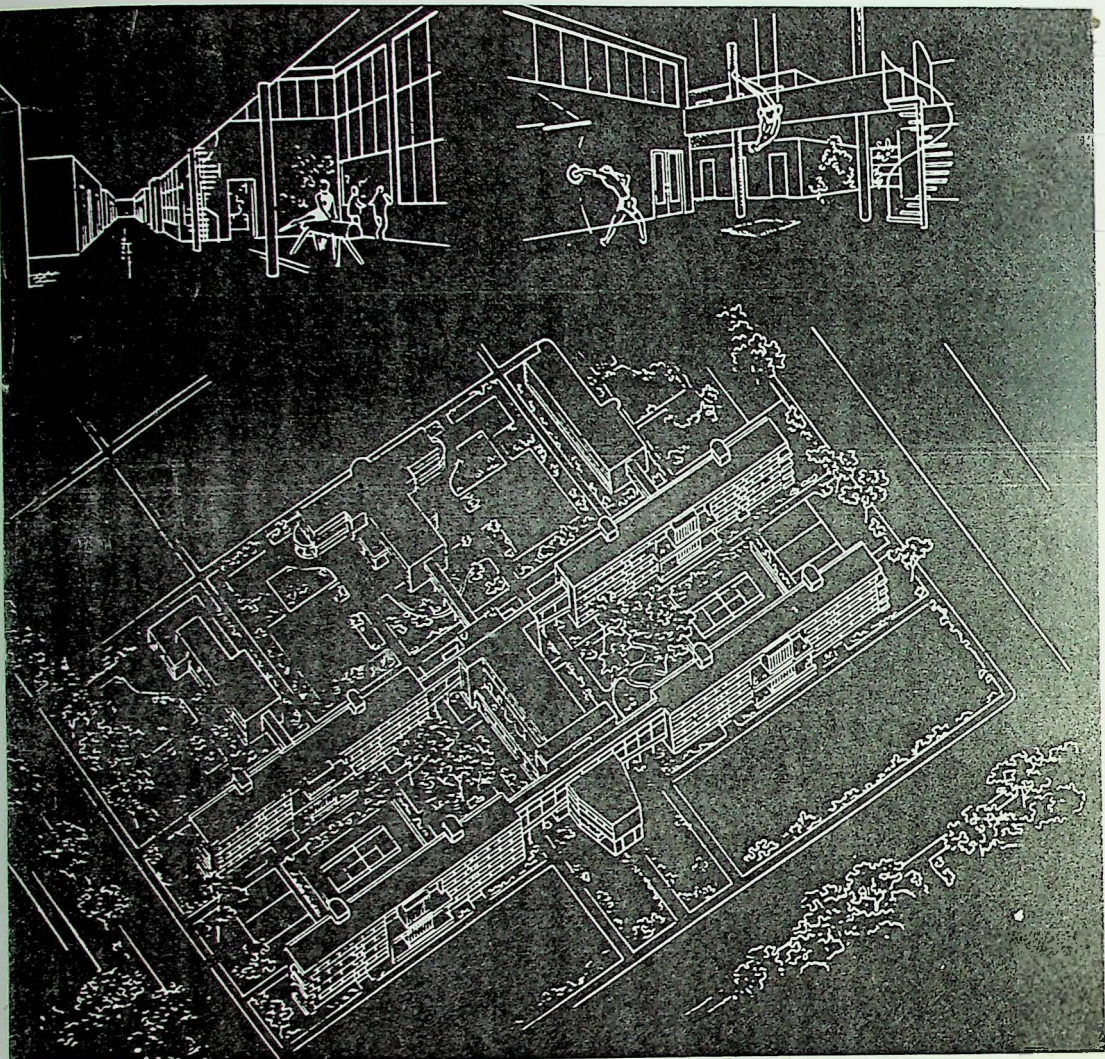
Fig. 23

CHAPTER 5

A MACHINE FOR PRODUCTION

CHAPTER 5

A MACHINE FOR PRODUCTION

> *The question of building is at the root of*
> *social unrest today because everyone has a*
> *primordial instinct for shelter and the*
> *various social classes no longer have dwellings*
> *adapted to their needs.   The choice is architecture*
> *or revolution.   Revolution can be avoided.*
>
>   (Le Corbusier, "Towards a New
>   Architecture", 1920)

With political instability throughout Europe and the Russian
Revolution fresh in people's minds, this was a tactful way to
sell a logical architectural programme.   Le Corbusier applied
himself to this programme in a massive scale in 1922, with a
visionary project, 'Ville Contemporaire' and a more refined
version later in 'Ville Radieuse'.

> *Modern architecture should be appropriate to the*
> *machine age.   A chair is a machine for sitting on,*
> *similarly a house is a machine for living in.*
> *Houses, like cars should be mass produced, standardized*
> *industrial products.*

Le Corbusier's plan was aimed at people who were fully adapted to
industrial society.   Just as a house was a machine for living in,
so a town was a tool for

> *ordered, stratified, efficient modern living.*   (Fig.24)

Le Corbusier envisaged the city as

> *the grip of man on nature*

a human operation directed against nature and for protection
against nature.

There seems to be a hierarchal organisation in the functions of
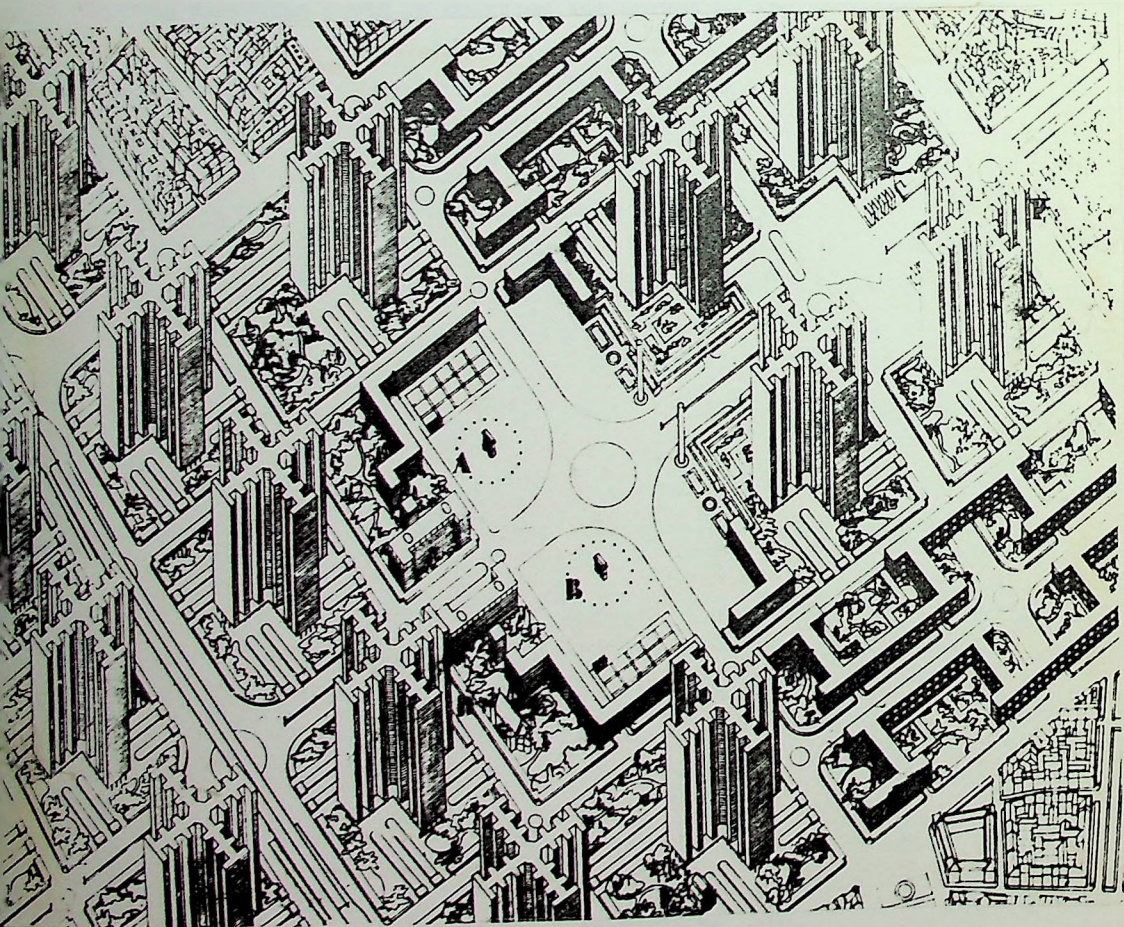
Fig. 24

the Ville Radieuse (1930), which Le Corbusier expresses in a
biological analogy. He had become preoccupied with the analogies
of geometric and organic, both offering systems of structured
(and hierarchal) ordering. In the plan for 'Ville Radieuse'
a geometrical order of a grid system is played off against the
organic order expressed in the biological analogue. The business/
administration centre is the head and nerve centre. Its 24 gigantic
cross-shaped skyscrapers, containing the city's brains (the brains
of the whole nation). Likewise, the residential areas form the
lungs, the heart is the cultural centre and the feet stand for
heavy industry.

The factories would be operated and worked by the proletariat who
would need standardized mass housing and they would be administered
by the intellectual elite who would be located in the adminis-
tration centre.

The 'radiant city' is therfore dedicated to authority and it did
not particularly matter to Le Corbusier whether it was the authority
of a Communist government or that of industrialists and bankers.
What mattered was that the authority would be strong enough to carry
out his plan. Therefore, as long as the plan contained the
ingredients laid down by Le Corbusier and if politics are just a
matter of who holds authority, then it is true (Le Corbusier
maintained) that the 'plans' are not politics and the solutions
of the planners are independent of the ambitions of the politicians.

In the factory (or the urban equivalent of it) the stages of manu-
facture are separated into discreet parts. In turn, the parts
are standardized - administration into skyscrapers and housing
into slabs - because standardization too was seen as a characteristic
and beneficial result of mass production.

Through it, Le Corbusier maintained that the city would be a
place of order, with a universal standard and complete uniformity
and under such conditions the mind would be calm.

Thus, the radiant city represents the division of labour on a
metropolitan scale, as a city planning technique with the
transportation system acting as the assembly line that brings
the fragmented 'parts' together as a finished product.

However, it has proved more difficult to draw together a frag-
mented life than it is to assemble an industrial product.
The radiant city divides the life of the city dweller into
standardized parts, with housing in one place, work in another
and leisure somewhere else.

Therefore, this model of the ideal city, which had become
orthodox by the end of World War II was based on the myth
that industrial mass production could be applied to everything
and that this would lead to untold benefits for all.   During
the sixties a similar myth about the benefits to be gained from
automation led to an image of a visionary city based, not on
production, but on consumption.

CHAPTER 6

TWO VISIONS OF AMERICA

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TWO VISIONS OF AMERICA

The metropolis in the East Coast of the United States was a
highly personalized vision and a quintessential expression of
the twenties prosperity.   In the post war decade, America
became the world's pre-eminent economy, business boomed and
skylines erupted into taller and taller towers.

The 1920 Census figures confirmed that the United States had
evolved into a predominantly urban nation and to most Americans,
the metropolis seemed the inevitable arena for the future.

An architect, who addressed these new realities with all the
energy and ambition of the era was Hugh Ferriss.   Fired by the
country's unbounding faith in capitalism, unquestioned confidence
in technological progress, Ferris produced his heroic visions
of the future.   (Fig. 25).

Curiously, through his drawings Ferriss gives the image of being
a combination of romantic and realistic and could be described
as a romantic pragmatist.   Amidst all his dreamlike renderings,
he is said to have had a strongly practical sense of economics,
technology and planning.   Ferriss rejected the 'Miesian' box
(that became post war vernacular) in which seventy storey sky-
scrapers were located side by side for miles, forcing out space
for sun, light, air and traffic.

He believed that the primary trends that architects would have
to deal with in the future was centralization in the city, but
the guiding of this city towards a sensible shape was crucial to
Ferriss' ideal.   He believed in what can be called 'social
determinism', a theory that good architecture could improve social
behaviour and thus reform society.   Without sensitive design and
humanistic planning, he feared the city would become anti-social or
rebellious.   Le Corbusier's theme was
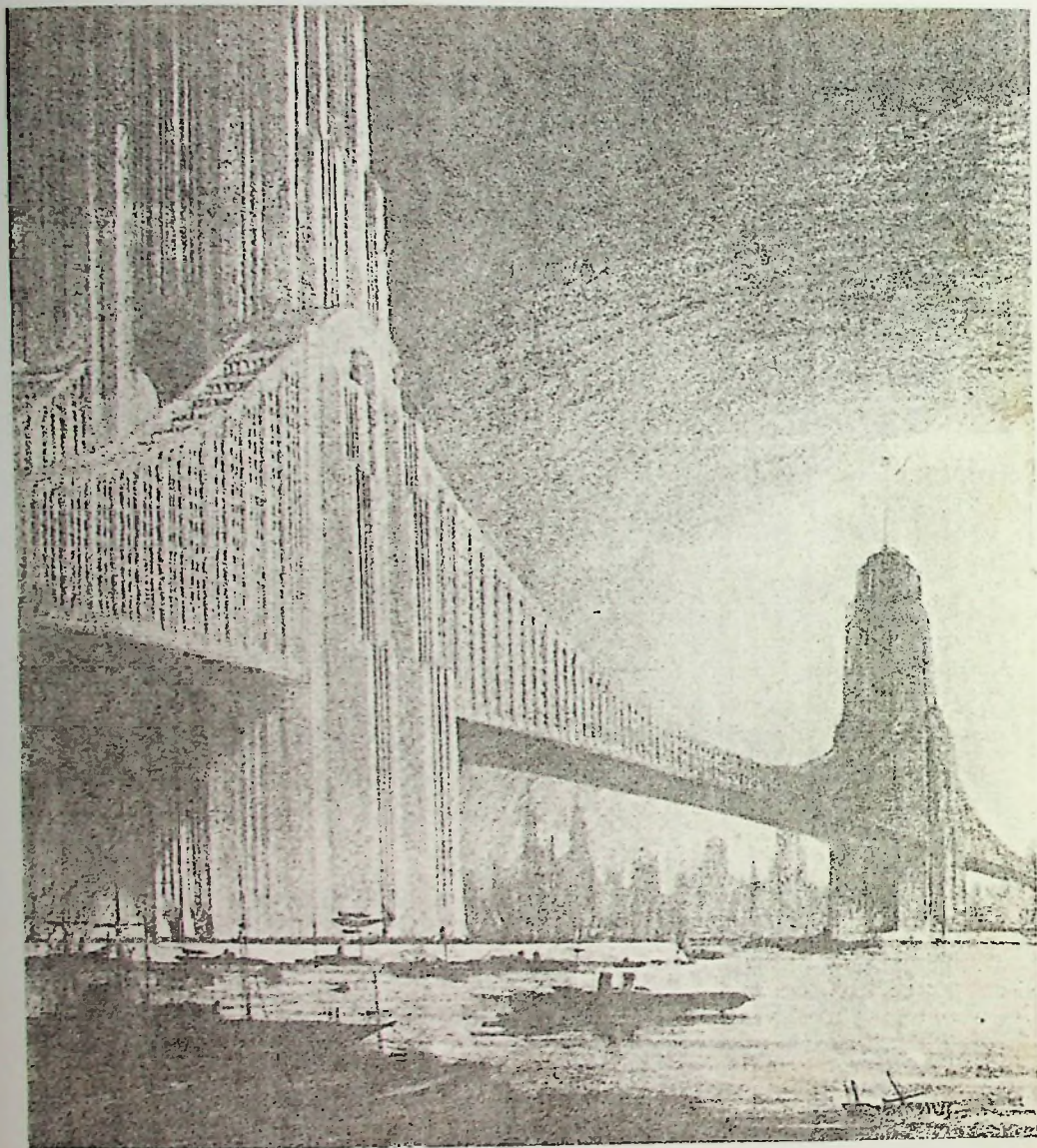
Fig. 25

*Architecture or Revolution.. Revolution
can be avoided.*

Ferriss, on the other hand, trusted the evolutionary process.
He assumed that technological progress and capitalist energy
(not architects) were the agents of change and that man must
determine the plan and framework that these forces would bring
about.

In his proposal for his 'Imaginary City', 1929, Ferriss' planning
is governed by a zoning law which was enforced in 1916.   This
was a formula which limited the maximum mass of a building that
could be constructed in a given site.   In order to preserve a
measure of light and air in the city's canyons, the code dictated
that after a fixed vertical height, a building had to be stepped
back in accordance, with a designated angle drawn from the centre
of the street.   A tower covering no more than quarter of the site
could then rise to an unlimited height.

For Ferriss, a new vision had been created by zoning, which he
embraced as a principle of planning and the inspiration of a new
urban order.

Ferriss' 'Imaginary City' was divided into three major zones:
business, science and art.   At each of the points of this major
triangle loomed a 'primary centre', a mini-city with centralised
functions of that zone.   Sub centres were located on the city's
radiating grid in relation to the principal triad.   For example,
at the mid point between the arts and business zones, rose the
building for the applied and industrial arts.   The centres would
be set far apart from each other, on an overall plan of great
formal, radial avenues.   Each avenue would have an architectural
identity to suggest its function.   The art centre's towers are
lighter, almost luminous, with roof gardens and sun terraces.
(Fig. 26).   The science and technology building is sharply
defined, 'art moderne' structure, whose lines resemble that of a
streamline locomotive.
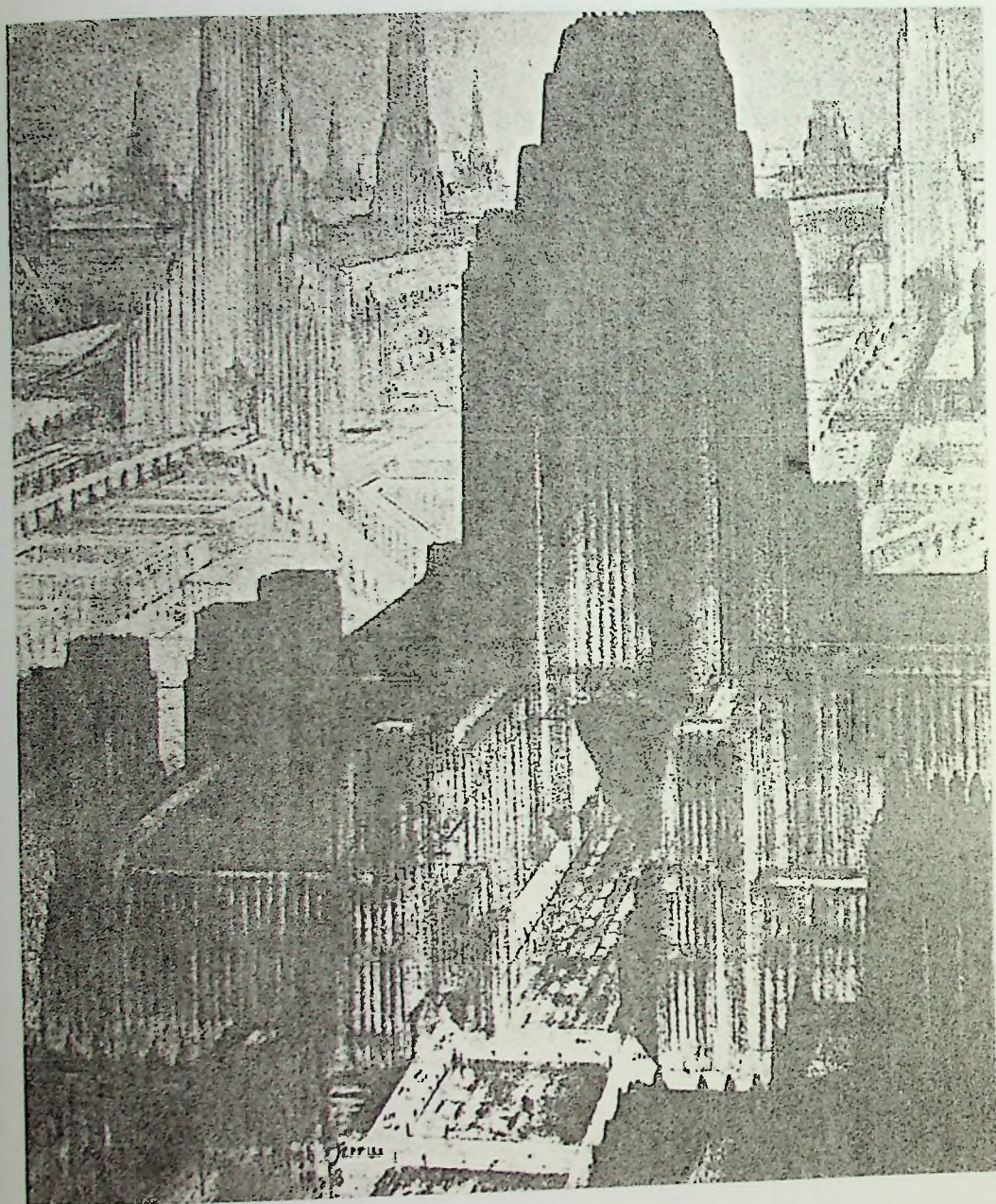
Fig. 26

This city, though, is based on a number of fallacious notions.
It is not difficult to observe that it requires a government
(similar to that portrayed in George Orwell's book, "1984",
and when Ferriss' further schemes for a single tower to house
all religious and for the centre of philosophy to be at the
inter-section of the arts and science centres are considered,
the plan seems very naive.

Hugh Ferris was a firm believer in the notion that God ranked
over Mammon and he thought this philosophy was a rational way
in which architecture would make the hierarchy clear and bring
a sense of order to the city.

Chaos is bad - order is good

These attitudes, more than anything else in Ferriss' work, date
him.   For all the concern about overbuilding and excessive
densities being expressed today, there is a far greater respect
for heterogeneity.   Generations raised on the urban theories
of Jacobs and Venturi tend more towards more tolerance of the
eccentricities of the urban environment and (scarred as they are
by the massively destructive urban renewal of efforts of the
fifties and sixties) towards a distrust of any environment that
claims to be a totally planned one.

That Ferriss could be so firm in his conviction that architecture
could bring about a social order to a city, is then more significant
than the actual form his visionary city took.   Today, the very
notion of creating an ideal social order through architecture
seems like an effort to improve a false order over natural
complexity, an effort that is at best quaint, at worst, dangerous.

But if today, Ferriss' visions strike us as being naive or
impracticable, we should remember that in the 1920s when flying
across the Atlantic made man a national hero, and when the thought
of walking on the moon was simply science fiction, the earthbound
ambition to rebuild the American city seemed to many, an achievable
goal.

Decentralization is often associated with the overturning of
capitalism and the reversal of contemporary industrial and
economic trends but it is not always so.   For the American
architect, Frank Lloyd Wright, the dispersal of the city was
the prerequisite for individuality and democracy.

> *Individuality is the functional integrity of*
> *the soul of man, and democracy is the very*
> *gospel of individuality.*
>
> (Frank Lloyd Wright, 1926).

Thus, in 'Broadacre City', 1926 - 27, Wright has the inhabitants
dispersed across the land on one acre plots.   But where the
Communists have their populations dispersed in small self-sufficient
communities, in Broadacre they are dispersed as separate nuclear
families.   His families practice subsistence farming, keep a cow,
but still have the advantages of the 'modern city' at hand,
including the chance to work in a factory.   For Wright retains
all the benefits of modern city and private enterprise industry,
linking them all up with the wonders of modern transport, on the
principal that the car has shrunk time and distance, making the
concentration of people in cities unnecessary as well as unhealthy
and undemocratic.

Rather than a city in any convential sense, Broadacre is a grid
of homesteads, facilities and factories within a huge network of
transportation.   Thus, Broadacre is the motorized American dream,
and in its design, Wright has reconciled his intense belief in the
individual with his equally intense belief in the inestimable
benefits brought to mankind by the assembly lines of Henry Ford.

Thus, the whole scheme would make it impossible without the motor
car.   The dispersed nature of the city makes its possession
essential, but to possess it, the worker would have to supplement
the food from his one-acre plot by a cash wage, earned by working
in the factory (presumably making the cars that are essential to
living in the city network).

Broadacre City is not just an 'ingenious' plan to get workers
into factories without driving them off the land, it is Wright's
ideal for an organic life for all: self sufficient, close to
nature, free and democratic:

> *Our free city for the sovreignity of the*
> *individual... the nature of democracy when*
> *actually built.*

Like Ferriss' 'Imaginary City' Wright's concept was one which was
purely American; but in a different sense.   It assumes wide
open spaces for the urban population to expand into (in 1932,
Wright calculated that there were 57 acres of good green land
per person in the U.S.A).   Such an idea was not therefore
universal in that it would not work in Europe where land was in
short supply, and large scale industry and the city were
inextricably linked.

CHAPTER 7

TECHNOLOGY

A GIFT FROM ABOVE!

CHAPTER 7

TECHNOLOGY: A GIFT FROM ABOVE

From out of the wide range of aesthetic, ideological and philo-
sophical ideas and contradictions which survived through to the
early part of this century, most of the architectural avant
garde chose rationalism.   This gave this a romantic intensifi-
cation and moulded it to the "Aesthetics of Reason".

A smaller group, however, decided in favour of the more pragmatic
components, split off and began to explore the possibilities of
the direct transformation of technology into architecture without
the use of metaphors or manifested imagery.

This vision arrived at its pinnacle when a new cult of the ideal
city flared up in the 1960s, under the influence of such disparate
phenomena as computers, transistors, space probes, automation
and miniaturization.   Psychedelic drugs, sexual liberation,
swinging London and San Francisco and the unbounded, if unfounded,
optism that tends to grip people in times of economic plenty,
were the visual signs.

The justification was that the contemporary form of settlement was
out of tune with the new situation.   The scientific and techno-
logical revolution demanded a new outlook and an artificial
urbanized future was necessary, beneficial and inevitable.

The answer lay in 'total planning' and a new vision - a new
technological Utopia, in which scientists and inventors were
joined by the 'designer'.

Where Le Corbusier, Frank Lloyd Wright and others had split the
city into several bits, the designers of 'megastructures' tried
to draw everything back together, if not into a single building,
then into a single system.   The results were so big that they
dwarfed the not inconsiderable renewal schemes of contemporary
planners.

All the fervour of this new technological Utopia owes a debt
to Richard Buckminster Fuller, who had begun to develop technical
'machines for living' as early as the 1920s.   (One of his
creations is the Dymaxion House of 1927).   His desire to achieve
constructions, which could be put up cheaply and quickly,
weighing as little as possible and covering as large an area
as possible,led him, not only to the development of the geodesic
dome but also to the realm of urban Utopias.

Fuller claimed that Utopia would be possible only if technology
provided more and more goods from fewer and fewer resources.

> *It was impossible when people thought that there*
> *was only enough for a minority to live in comfort.*
> *But Utopia is inherently for all or for none.*
> *Because invisible technology can do much less,*
> *Utopia is now possible for the first time.   Bodily*
> *needs must precede metaphysical contentment.*

During the 1960s Fuller inaugurated the World Design Science
Decade to stimulate the achievement of this Utopia, for he
believed that the state of society was such that a Utopia was
necessary to ensure survival.

> *For the first time in history, Utopia is at*
> *least physically possible of human attainment.*

Fuller's drawings range from pleasing 'handmade' sketches along
the lines of strip cartoons to full technical drawings built
on regular repetitions of basic geometrical elements.

Fuller designed several ideal cities of the megastructural class.
One of his most controversial ideas was the concept of 'space
ship earth' which he designed in 1962.   (Fig. 27).

Here, New York is rescued from pollution and climatic extremes
by the device of a vast air-conditioned geodesic dome.   The

Fig. 27

Fig. 28
The enormous space stations depicted floating over mountain
peaks would seem to be from the world of science fiction.   But
according to Fuller, these floating geodesic spheres could be
realised with today's technology.   (Patented by him in 1967).

As the sun's rays passes into the sphere the air inside becomes
slightly warmer.   Thus, the air inside the craft becomes
lighter exerting a buoyant upward pressure on the craft.
With such spheres, Fuller forsees creating floating
"Tetrahedronal Cities".

world is seen as a limited entity, with limited energy income
from the sun and limited reserves in the energy bank, and this
concept would also provide for efficient use of these reserves.

One of the most fascinating features of this dome was the way
in which its appearance changed with changes in the weather.
When it was bright outside, the dome was transparent, when it
was overcast, the dome turned opaque.   A controlled climate
within the dome would also be feasible.   However, Fuller's
scheme for a geodesic dome over Manhatten, would have to resolve
a number of problems, which call for practical experiment
(haze, condensation, tension etc.) and consequently could only
be tackled at a later stage.   We do not yet know whether in
the present state of our technological knowledge, these problems
could be resolved or not.

As a result of his unbounded faith and fascination with technology,
Fuller went on in 1966 to design the " Tetrahedral City" (Fig.29) which
could accommodate 300,000 families or one million people.   The
structure is based on the same principles as the geodesic dome
(using repetitions of basic geometric shapes).   The skeletal
frame of the macrostructure could be erected in layers until it
eventually reaches it optimum size, an important provision which
would ensure that the urban structure grew organically.   Apertures
could be fitted in the four faces of the pyramid, to illuminate
the otherwise enclosed inner areas.   The service and waste
disposal systems would be incorporated into the skeletal frame.

However, Fuller gives no details of the installations that would
be provided but what he does give is a completely convincing
demonstration of the principle of organic growth within an urban
structure.   This is the most important feature of the concept.

The visions of Paolo Soleri bear a striking resemblance to that of
Fuller's "Tetrahedral City".   But whereas Fuller was concerned
with the conservation of the earth's energy resources, Soleri was
concerned with the preservation of nature.   It is interesting
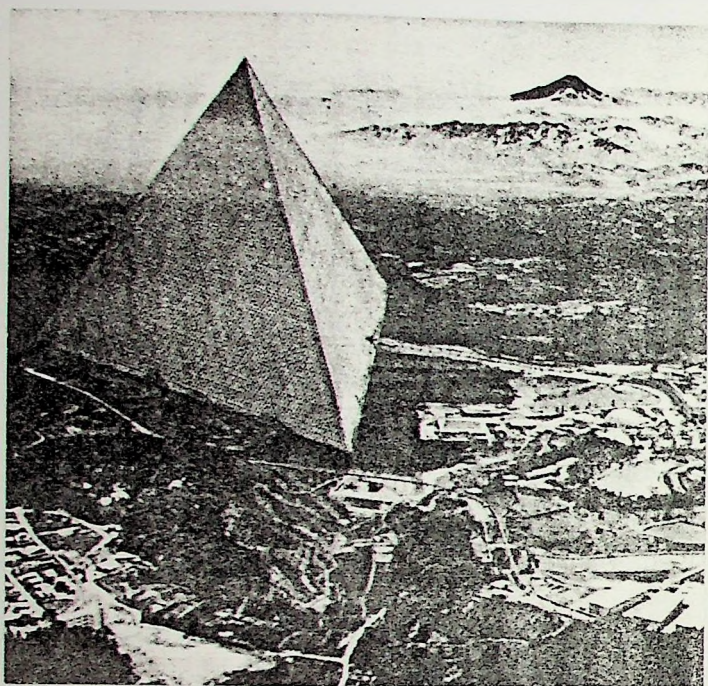then that technology is his answer.

Fig. 29

Soleri was distressed that the urban population of the world had spread out under the influence of the motor car (Wright's Utopia), into a

> *weak veneer of life ridden with blight and stillness.*

In place of urban sprawl and suburbia, 'Arcology' (ecological architecture) would compress all human life into huge structures containing hundreds of thousands of people per square mile.

> *Arcology, instrumented by science and technology, will be an aestho-compassionate phenomenon. Its advent will be the implosion of the flat megalopolis of today into an urban solid of superdense and human vitality.*

In his arcologies, Soleri has considered all aspects of society and its problems as he sees them. He proposes solutions for everything from 'medical care' to 'planned obsolescence'.

Arcology is the form of huge symmetrical structures that are intended to present, on the outside, a coherent contained image, at the same time, allowing the maximum personal variety within. Arcologies have immediate access to the countryside and thus give all the benefits of town and country as polar opposites. (Fig. 30).

But, Soleri states that arcologies were not just ingenious sculptural boxes into which people were crammed tightly, they were a new super-organism in which computers and other cybernetic devices tied together the brains of the citizens into a "higher consciousness'. Arcologies were to be biological organisms themselves as well as containers for biological life.

Soleri continues to work on the same themes that preoccupied him during the 1960s. He has designed over 30 arcologies with
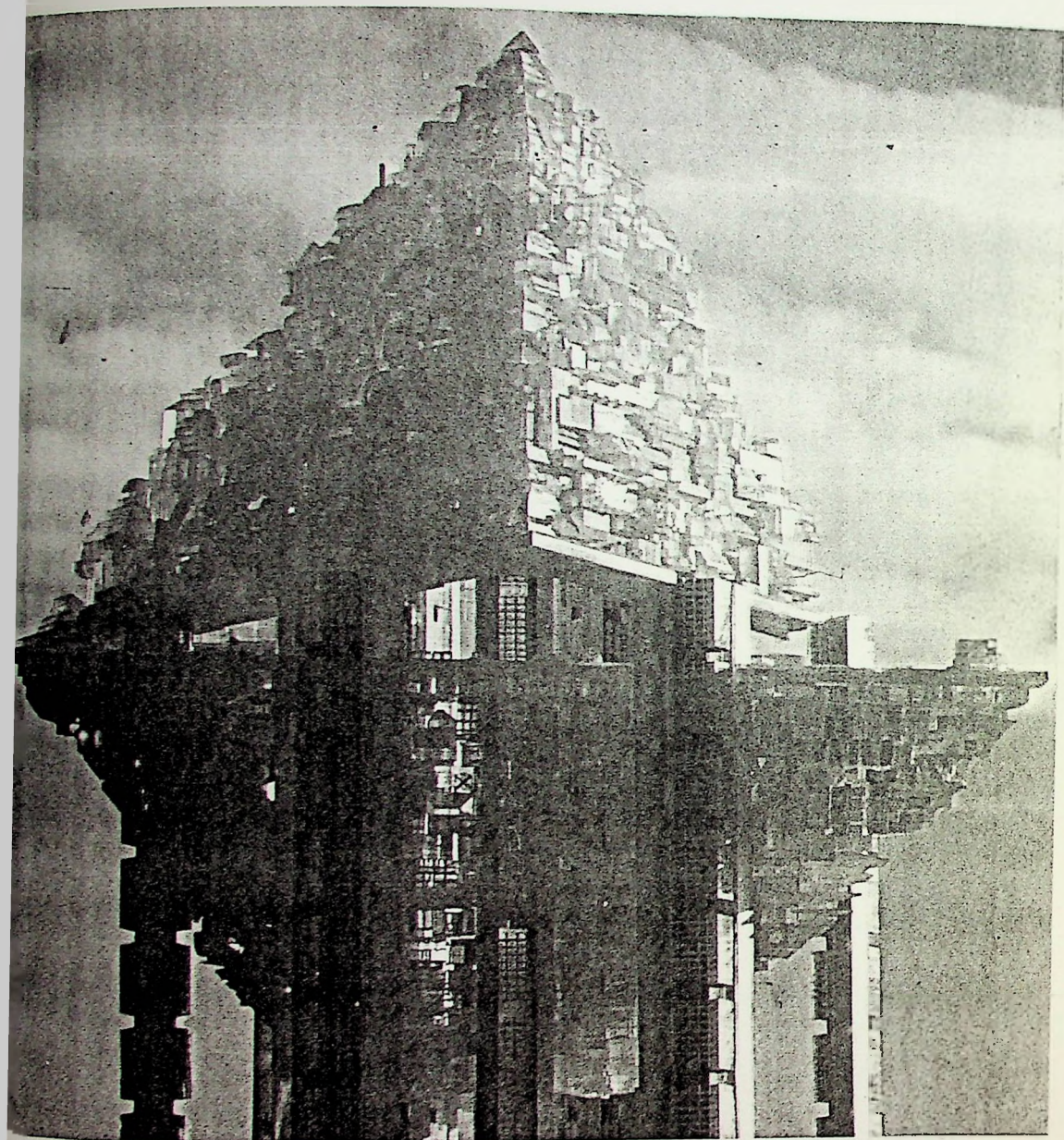
Fig. 30

extensive and detailed drawings for all,his most famous
being "Arcosanti".   His ideas have achieved greater longevity
than those of all the other megastructure designers of the
1960s.

The successful Utopian schemes of the 19th century were those
that possessed a strong, dictatorial leadership, demanding
absolute religious faith and engaging in a heavy building
programme.   Soleri's longevity is perhaps due to the fact
that he appears to have all three in abundance!

As early as 1960, ideas of a city being a single building, a multi-
level environment had already begun to emerge with influence
from earlier visionaries such as Hugh Ferris, Sant'Elia, the
ideas emerged first in the separation of pedestrians and cars
by using 'z' levels.   Then, in the further separation by extensive
use of elevators and escalators.   Then further in the fragmentation
with alternative levels for different speeds of vehicle with upper
decks for gardens and links between high rise buildings.   Notions
of connecting at many levels were also considered, i.e. not only
horizontally and vertically but also diagonally.

No-one contributed more to this type of vision than a group of
Japanese architects, including Kiyonare Kikutake, Kenzo Tange
and especially Kiro Kurokawa,   who formed the Metabolist Group.

The Group produced bold architectural and urban visionary designs,
fantastic and extreme but always logical forms of structural
expression.   These were an interpretation of the themes of
constant growth and change and Kikutake's statement in 1962
could have been taken straight from a Futurist manifesto:

> *The city of the future will have a scale and speed*
> *which will far surpass human measurement.   There*
> *will, for example, be mammoth edifices, super blocks*
> *and super speedways.*

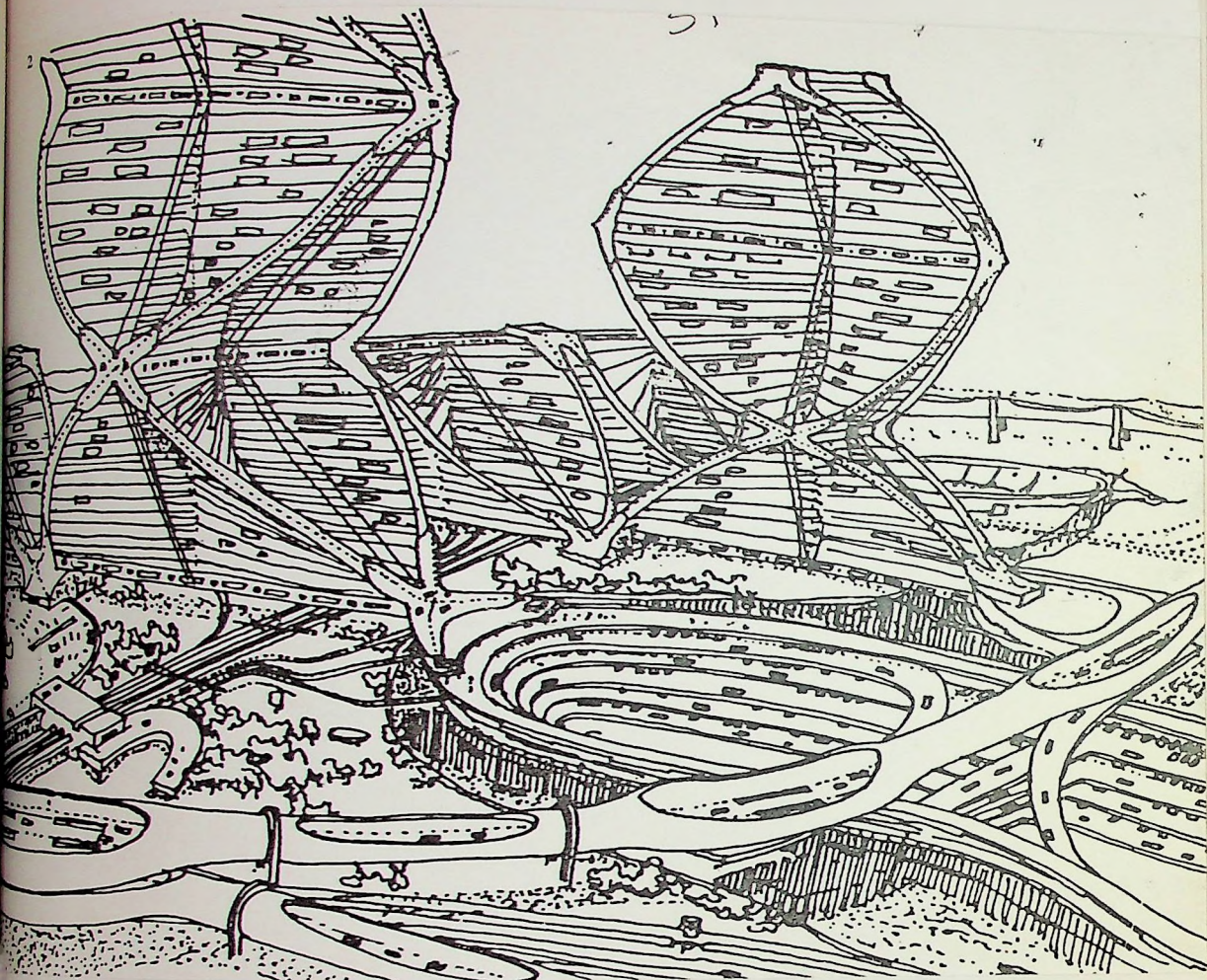Perhaps the most immediately recognisable of Japanese-Metabolist
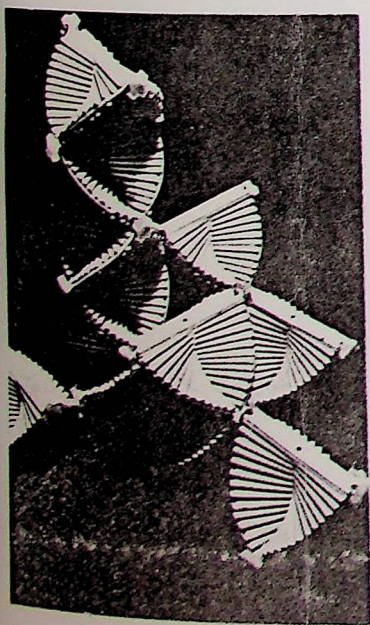
Fig. 31

Fig. 32

projects was Kiro Kurokawa's Helicoids Project of 1961.
This was originally intended as a proposal for the rebuilding
of the Genza district of Tokyo. Subsequently, however, it
developed an independent life in the magazines as the ultimate
symbol of the Metabolic vision. (Fig. 31, 32).

But of all the many projects evolved by the Metabolists, Kenzo
Tange's proposal for Tokyo Bay, 1961, has received the greatest
amount of publicity. Basically, it proposes the abolition of
the existing concentric urban structure and its replacement by
a process of linear development. This would involve the
construction of a wide urban axis extending right across Tokyo
Bay. (Fig. 33).

The blocks of terraced houses designed for the residential area
were to be organised as self-contained neighbourhoods with their
own local amenities after the style of Le Corbusier's "Unite
d'Habitation" (Fig. 34). As far as actually building these
houses, however, Tange proposes that the occupants should be
allowed to participate to a very large extent. Only the layout
of the concrete load bearing structure would be determined by
the architect: the design of the apartments would be left to the
occupants.

Tange's scheme is all 'megastructure', an enormous over water,
open-ended communications system, connecting megastructures,
served by megastructures and made of megastructures. (Fig. 35)
The potential of this scheme as Tange saw it, must surely consti-
tute one of the most heroic visions of urban planning to appear
in this century.

Tange's Tokyo Bay simply raised the megastructure in Japan to
a monumental vastness from which it could not get down again.
The other Metabolists who were already moving in the same direction,
could only pay it the sincere flattery of imitation, and in the
process, proved that they had neither the formal vision nor the
sustained capacity required. The Japanese movement consequently,
had only a very short life of genuine creativity.
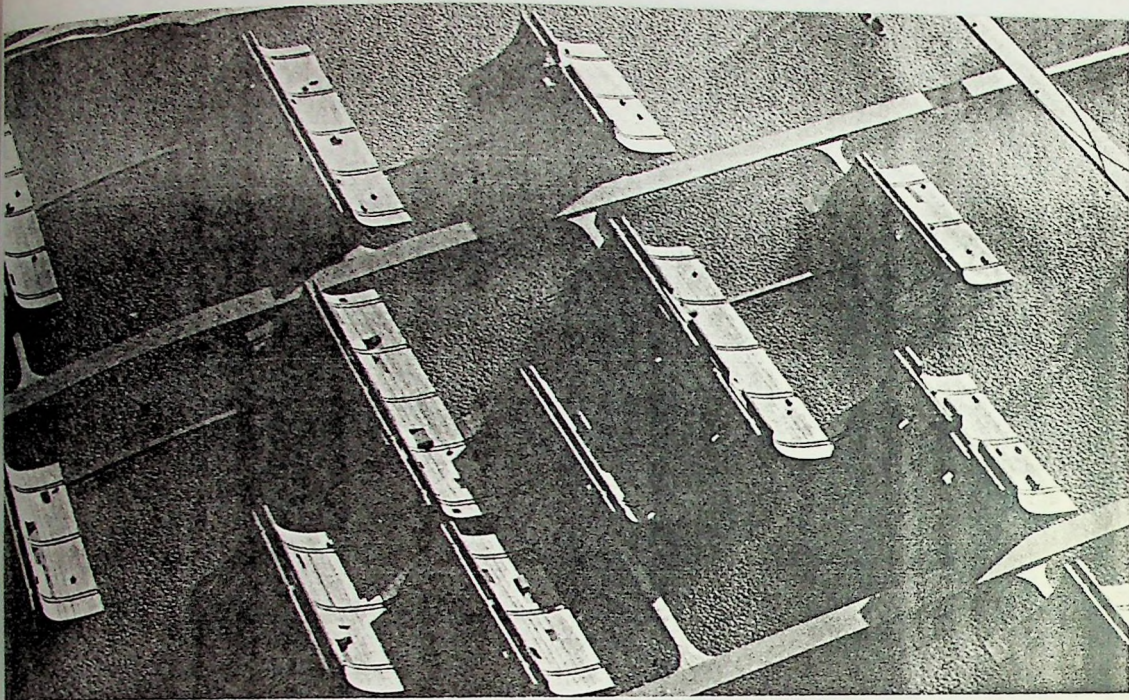
Fig. 33 Tange's proposal raised the credibility for urban visionary
        projects, by putting traffic works to entirely new use in
        creating form (each sub-section of the scheme is framed in
        a loop of freeways) and thus made Japan the font of inspiration
        for architectural and urban visionaries for the first half of
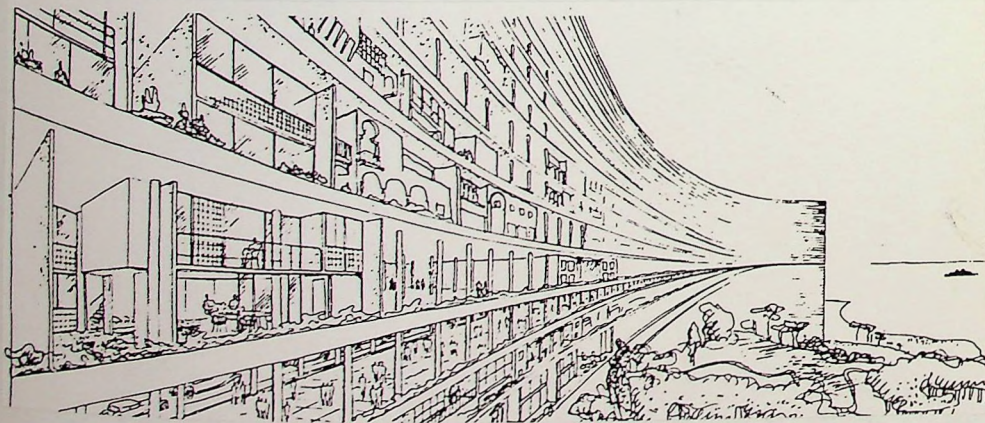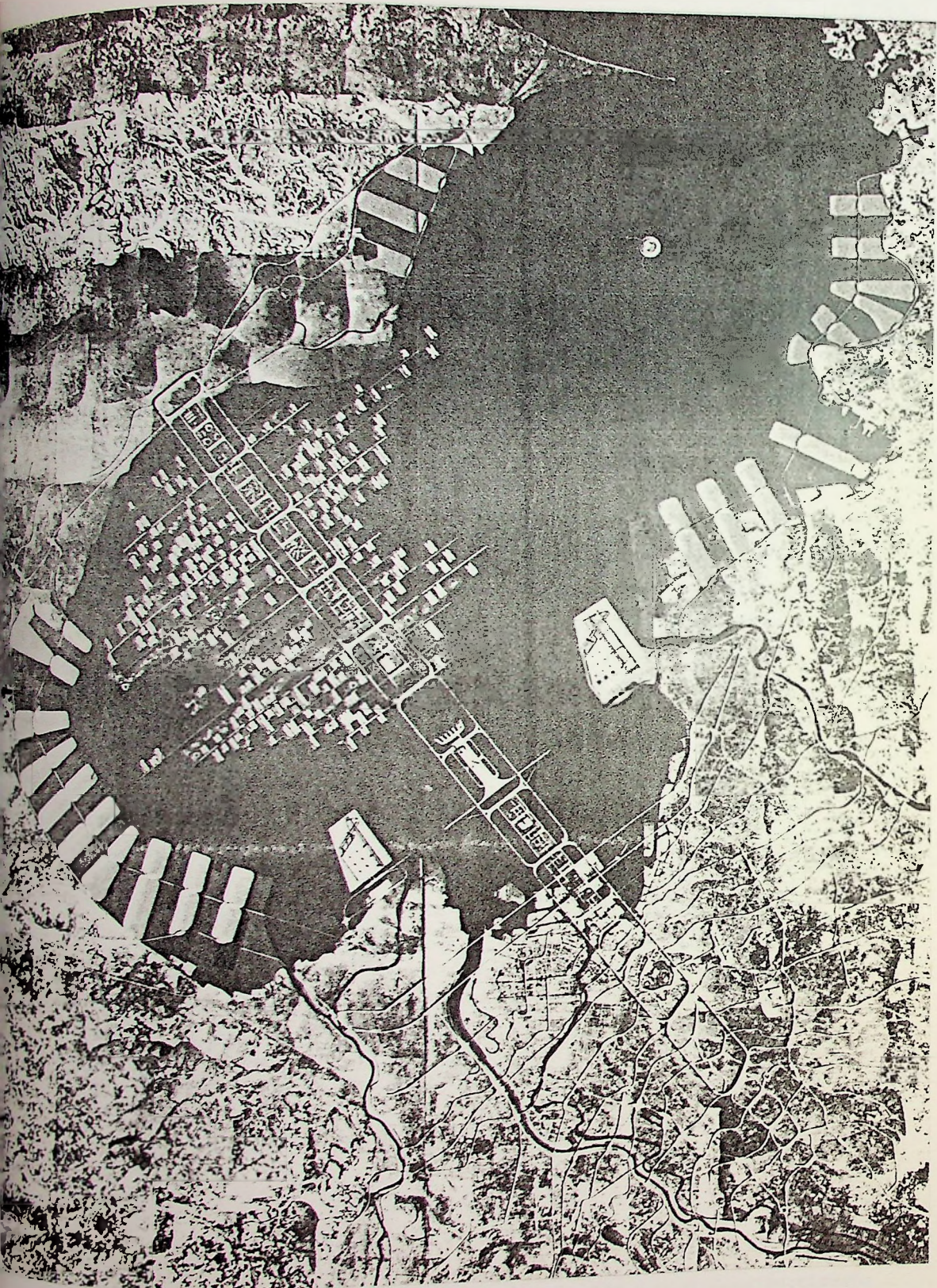   the sixties.

Fig. 34

Fig. 35

In the same year as the Metabolists Group, another formation
came into being in Great Britain, related to the Japanese
team but much more legendary: Archigram. The group was
founded by Peter Cook and Michael Webb. They were later
joined by Warren Chalk and Ron Herron. The partners were
bound by the belief that they were the intellectual heirs of the
Futurists. They used the most advanced cybernetic resources
of the time, space capsules, robots, computers etc. and combined
these into buildings. They designed the cities that every generation
was supposed to build anew, thus applying the laws of consumer
society with disloyal logic to architecture. Therefore, the
consumer society itself seemed to represent the apogee of human
achievement, and the exercise of consumer choice was the most
perfect expression of personal freedom.

In "Plug-in-City" by Peter Cook in 1963 - 64, the area of liberty
of consumer choice was thus extended from vacuum cleaner and other
household commodities, to the dwelling and even the city. (Fig. 36)

The megastructure of Plug-in-City consists of a diagonal frame-
work of structural tubes containing the necessary city services,
such as electricity, water and sewage, including passenger lifts
and the distribution of goods. It had a projected lifespan of
40 years, everything else, dwellings, shops, theatres, car parks
were plugged into the megastructure, so that the units could be
easily replaced when they became obsolete.

Plug-in units were to be mass produced in factories, exactly like
motor cars, with choice of colours, styling, standard optional
extras, new models each year, and of course, built-in obsolesence.
Plug-9n cities offered many opportunities for buying and selling,
and for leisure but took little account of production. Although
it had offices, laboratories and business centres, it was never
clear where the various 'plugs' were manufactured, or by whom.
They were, perhaps, immaculate conceptions of the megastructure.

Among the heroes of Archigram were not only the Soviet Constructivists
and Futurists, but also Dan Dare, Flash Gordon and Superman, a
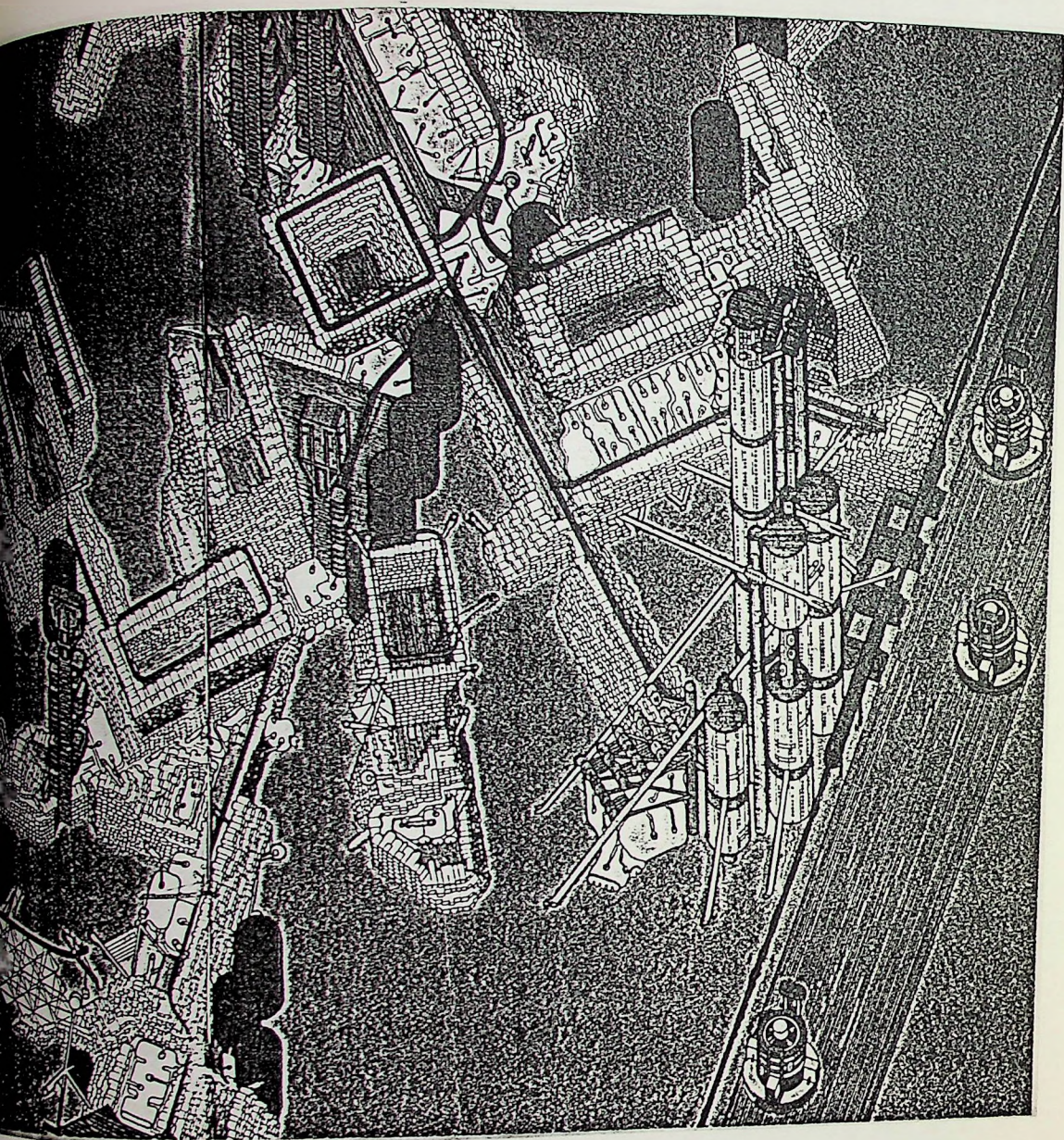
Fig. 36

result of the group's craze for science fiction as well as
their proximity to pop art.   These Archigram tableaux,
therefore, suggests a subtly cheerful throb of a 'beat' festival
in a Futurist Metropolis, and it is not by chance that many of
the images in the Beatles cartoon film "Yellow Submarine" are
not unlike the "Walking City" of Ron Herron of Archigram.

The orthographic rendering of a visionary megastructure, executed
in 1964, is typical of the work of Ron Herron.   This mobile
urban module is conceived to be one of an indefinite number of
such autonomous units which together form a "Walking City"
(Fig. 37).

In the Futurist world, envisaged by Herron, these complexes
would meander across the landscape like gigantic bugs, forming
aggregates with other megastructures and uncoupling after a
while to seek new configurations.

At first glance, the "Walking City" seems to be based on a
seemingly absurd contradiction: the megastructure embodies
the highest level of technology and social organisation, while
their aggregate, the "Walking City", resembles an insect colony.
But the contradiction is deliberate and characteristic of the
Archigram concept of modern society, dynamic, and ever discarding
the obsolete to embrace innovation.

In opposition to the purely formal Utopias of Archigram and
Japanese Metabolism, which clung to an idea of a machine civilisation
by proposing a mechanical architecture and Metropolis, the Italian
group "Superstudio" formed in 1966, conceived of a critical Utopia.

Their use of a Utopian system was purely didactic, metaphorical
and cognitive and they attempted to represent a level of clarity
and rationale beyond that of reality itself.

Therefore, up until 1971, Superstudio's projects were instrumental
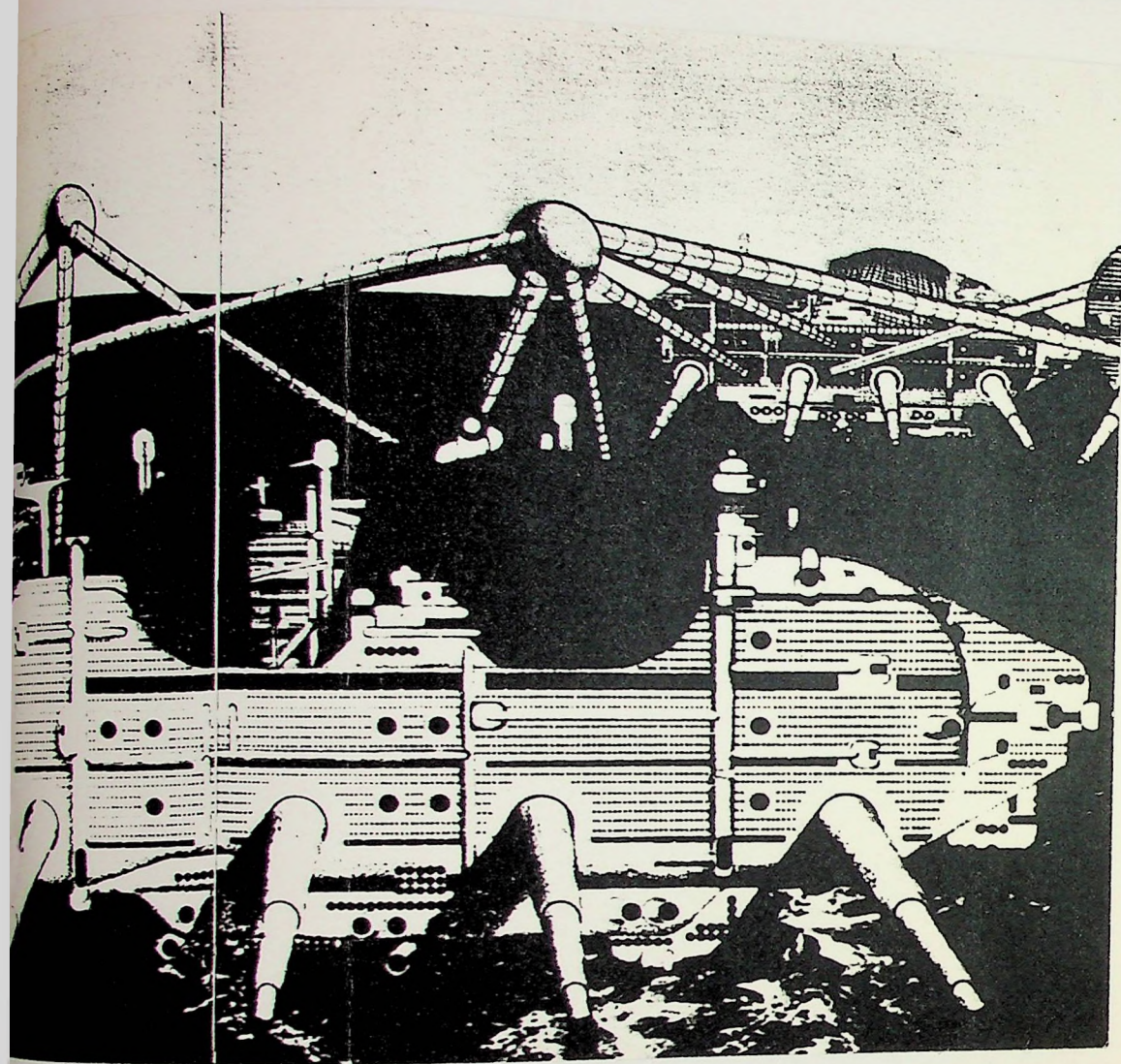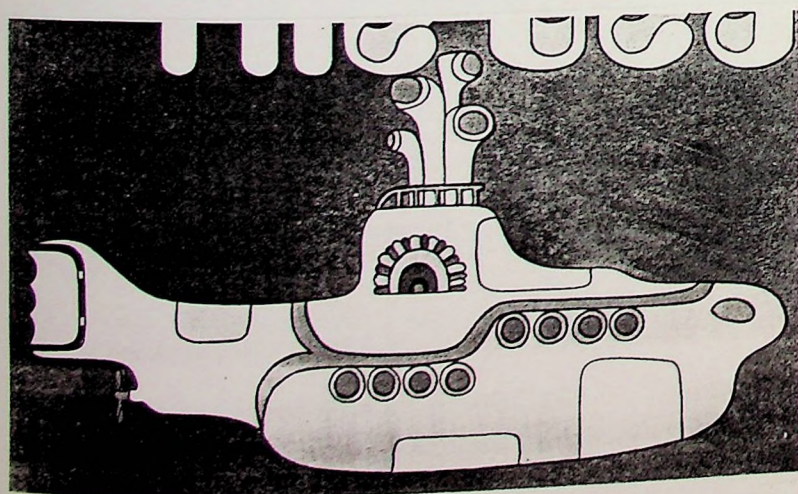and scientific Utopias.   They did not propose a different world

Fig. 37 (a)

Fig. 37 (b)

from the existing one at a more advanced level of cognition.
The work which stands at the mid point of Superstudio's creative
career is the "Continuous Monument" of 1970. Subtitled,
"An Architectural Model for Total Urbanization".

> *It is the result of a logical extrapolation.*
> *It is the extreme pole of an architecture*
> *orientation story. The history of the monuments*
> *which began with Stonehenge and passing onto the*
> *Kaaba, the pyramids and the Chinese Wall, found*
> *its completion with a monument capable of forming*
> *the whole world.*

                    (Superstudio, 1971)

The continuous movement is comprised of huge geometric shapes,
they stretch over entire cities and countrysides and would house
the world's population. Superstudio in its 'cognitive'
illustrations juxtapose the monument with various settings
from various parts of the world. These settings include lakes,
canyons, cities, towns and countrysides (Figs. 38 - 43).

In "New New York" it passes over Manhatten, embracing Wall Street
skyscrapers as souvenirs of the past chaos.

Even if its metaphorical imagery resembles more contemporary art
(Radicalism) than the architectural Utopias of its predecessors,
Superstudio's "Continuous Movement" achieves a greater degree of
visionary power than any previous Utopian linear city.

It was the architects who first presented the concept of mega-
structure to the world and they, who first rejected it. Its
worst meanings ultimately were in the eyes of the architects,
in some cases, the same architects who had most loudly proclaimed
its virtues when the concept was still new.

Megastructures were only ever likely to be taken seriously in
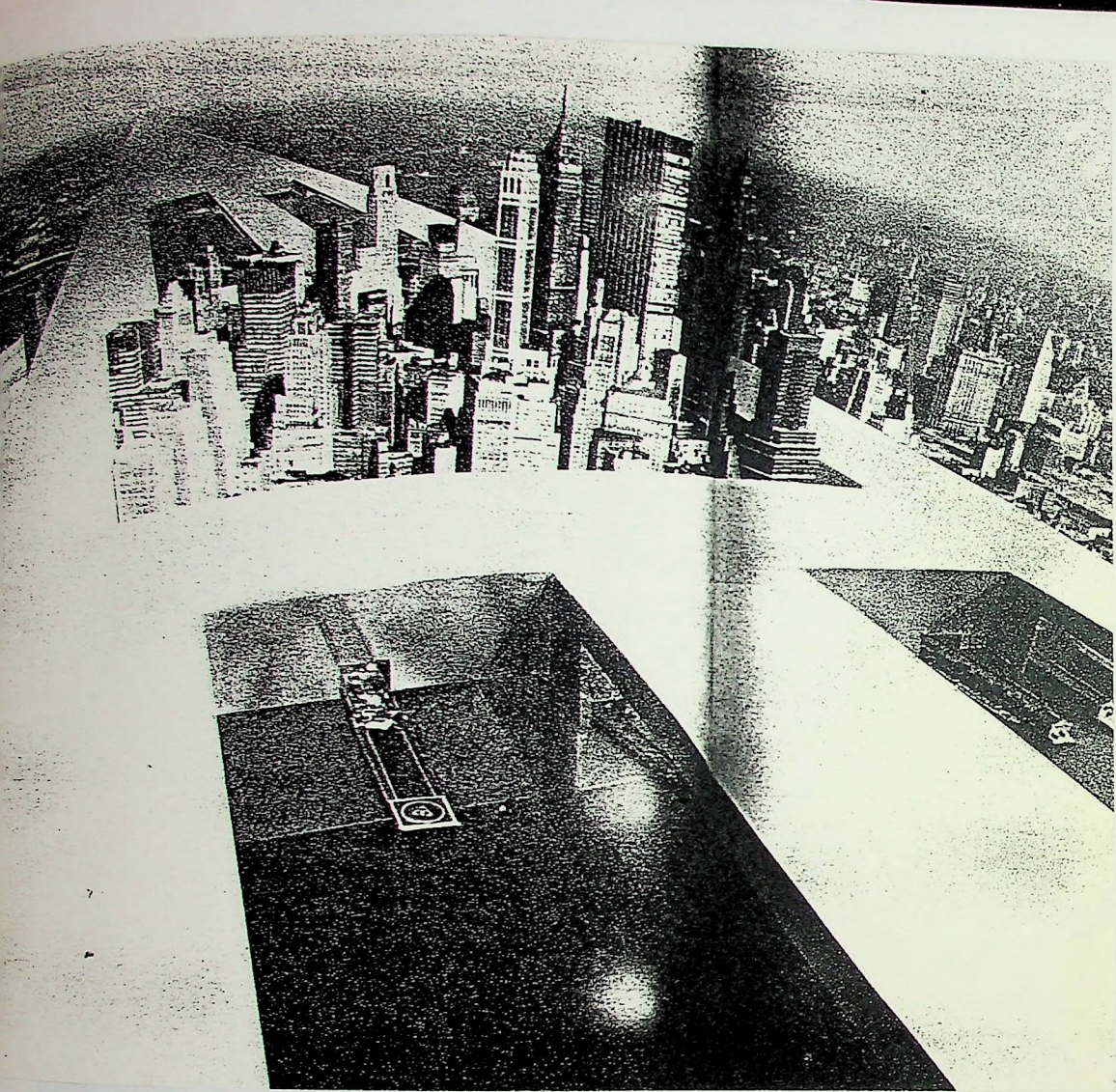culturally or economically sheltered environments where the words
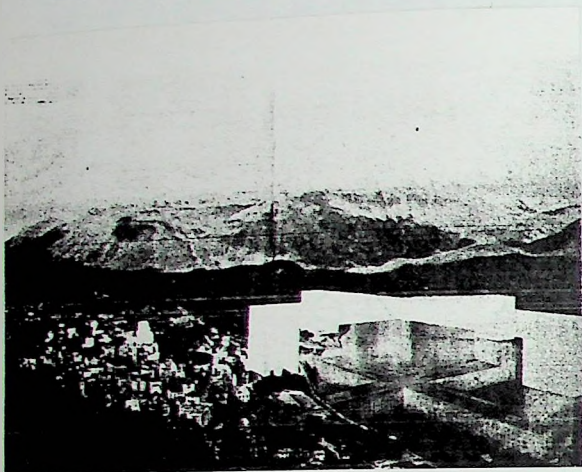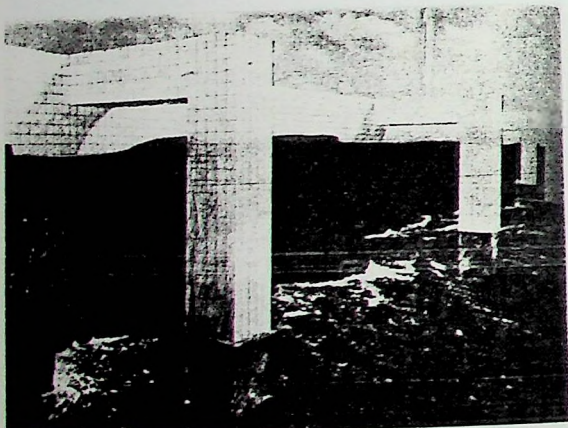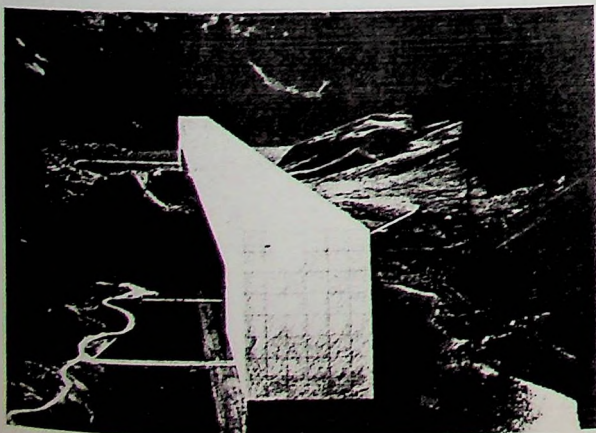
Fig. 38

Fig. 39

Fig. 40

Fig. 41

Fig. 42
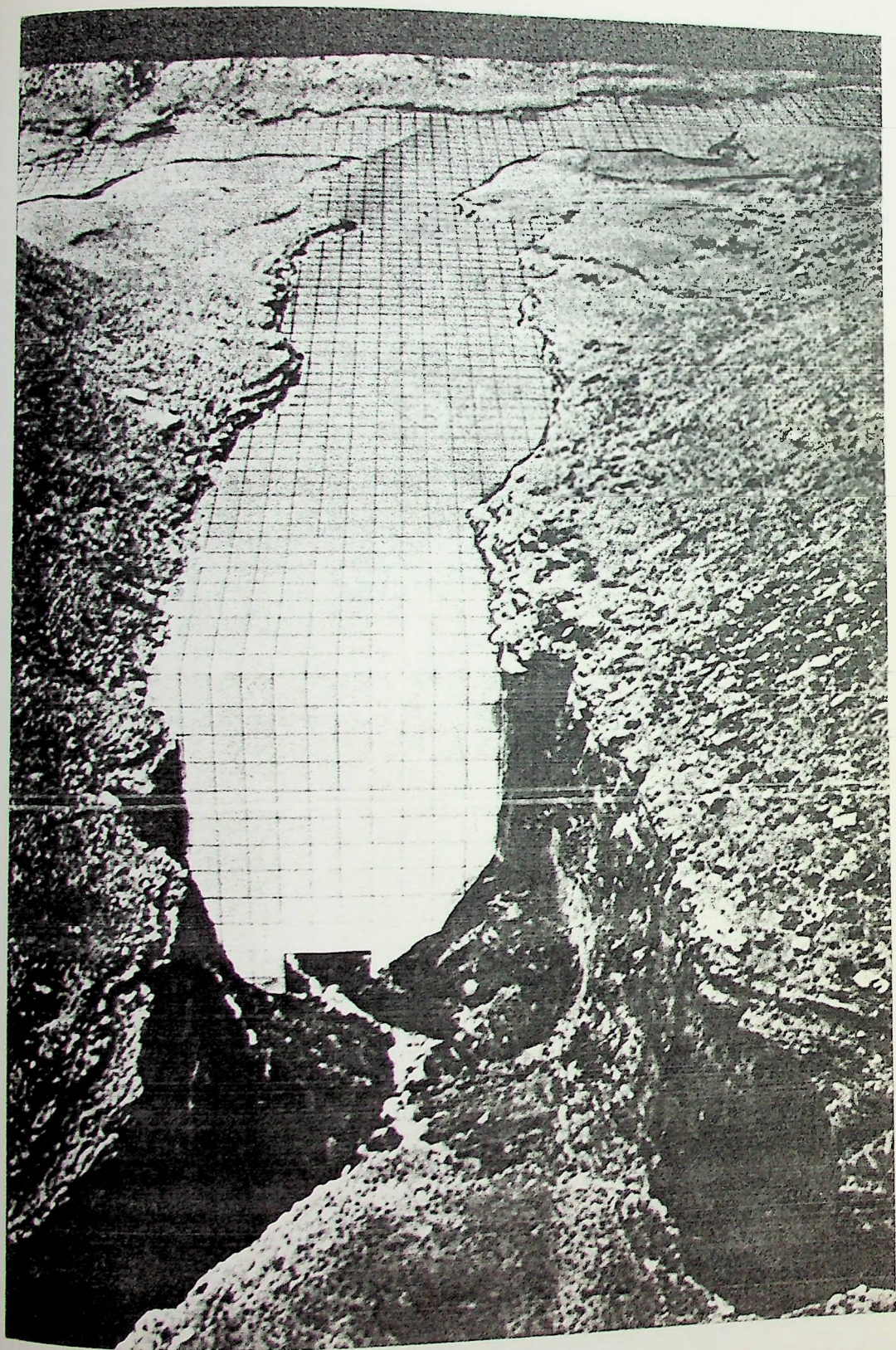
Fig. 43

of architects would be heeded.   By the start of the seventies,
the supply of such privileged environments was about exhausted.
But it was also clear by then that the concept itself was exhausted
as well.   Why did the tide of opinion recede so quickly and leave
these visions in a desert of distrust and misapprehension?
Possibly because the concept was faulted right through by an
inner contradiction that could not be resolved.   Possibly
because the unbounded optimism in economic, technological and
cultural growth of the decade faded and so too, its proposed
manifestations.   But the fact remains that some time around
1970, it seems to have been perceived that a city designed by
one man, or by any group unified enough to produce a comprehensive
design, would be a dangerous, starved and impoverished environment,
both visually and in larger, less precise cultural terms.
Therefore, Superstudio's "Continuous Monument" marks the end
of an architectural ideal which represented the optimism and
vitality of a generation.

CHAPTER 8

FREEDOM TO PREDICT

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Science fiction, the representation of the future both as literary and illustrative expressions, is an interesting theme when comparing them to those of visionary architects.

A strong element in all aspects of science fiction is prediction. Many science fiction writers and illustrators have a genuine basis for making these particular assumptions about the future. These may include social predictions based on the past, exaggerations based on the present, or an element of uncertainty about the future. In most cases, the concern for accuracy is secondary. The essential key is that the effects of ideas and predictions on the actual course of events in the future depends on a certain freedom human beings have, in directing their own destinies.

To what extent we are able to accurately predict is of little importance. The fact that we are free to visualise as we wish remains a fascinating and curious point for all.

Unlike science fiction writers and many illustrators, the visionary architects' methods of portraying the future lay in perceptions of Utopia rather than actual predictions of the future.

Bruno Taut and his "Glaserne Kette" tried to invoke a new spirit within architecture, a new environment that would

stimulate the creative force of man,

a glass world that was understandable to the masses, a new expression that could be read and understood by the layman. Writers and fantasy illustrators were not as noble.

The visionary architects in the 20th century had an obligation to present a Utopia or practical solution for the city, whereas

the writers and illustrators had the freedom to portray Utopia
or Dystopia, however impractical or outrageous it may have been.
Their only obligation, therefore, was to tell or illustrate an
imaginative story.

Science fiction has always embraced the most advanced limits of
technology.   Therefore, up until around 1940 (when science
fiction moved from planet earth) the future was an urban pheno-
nomen.   In describing the future, therefore, most science
fiction exponents concentrated on urbanism and city life.

> *With the development of industry, a greater and*
> *greater antagonism has arisen between civilisation*
> *and nature.*

The literary development in science fiction of conflicting myths
of rural Utopia and urban Dystopia is described by Raymond
Williams in his book, "The Country and the City".   Here he
says that

> *The common image of the country is now the image*
> *of the past, and the common image of the city is*
> *now an image of the future.*

In this book, the city becomes enclosed and the urban population
has come to depend upon the artificial manmade systems of the
city.   Industries proved to be such a prodigious source of riches
that people survived from industrial production alone and
independently of nature.

In Aldous Huxley's "Brave New World" even the production of human
life was moved into the factory and artificial materials were
prized above all others.   Here, science and technology are seen
to transcend morals.   Although "Brave New World" was both a
satire and a cautionary tale about the technological future,
many science fiction writers and even some architects continued
to use it as a textbook for an ideal Utopia.

In Robert Borsky's "Trolls" the city Megalopilis is described, and is probably the most prophetic image of science fiction's futuristic city. His example is typical of the generalised horizontal Megapolis - the ultimate in urban sprawl, where the city covers the entire surface area of the urban planet.

Le Corbusier and other visionaries of the time were proposing vertical solutions which, in hindsight, can be seen to be more practical. Borsky, however, in anticipating the future rather than proposing solutions for it, has succeeded in being far more accurate in his predictions as can be seen with the massive problems of urban sprawl today.

Borsky and other science fiction writers are admirable, in view of the fact that they have stimulated the imagination of the masses and have been accurate in some of their predictions. Their counterparts in illustration, however, do not deserve the same acclaim in that their illustrations are merely plagarisms of the writers' creations. Illustrators seemed only capable of translating writers' ideas onto the drawing board and were lacking in the ability to further contribute in the realms of design and innovation.

Figure 44 is a typical example of how the city of the future was anticipated in the early 1920s. The city depicted, is a gross extrapolation of that time, portraying exaggerations of past/present to predict the future. Clearly, innovation was lacking as illustrators relied on the ecclectic neo-classicism of the 19th century architecture to depict their futures.

In Figures 44 and 45, the huge edifices are the nerve centres of the city, instructing and controlling the radiating areas. These central buildings are colossal, over-scaled and imperialistic, and the materials used in their construction seem to be archaic with no attempt being made to consider new or innovative materials.

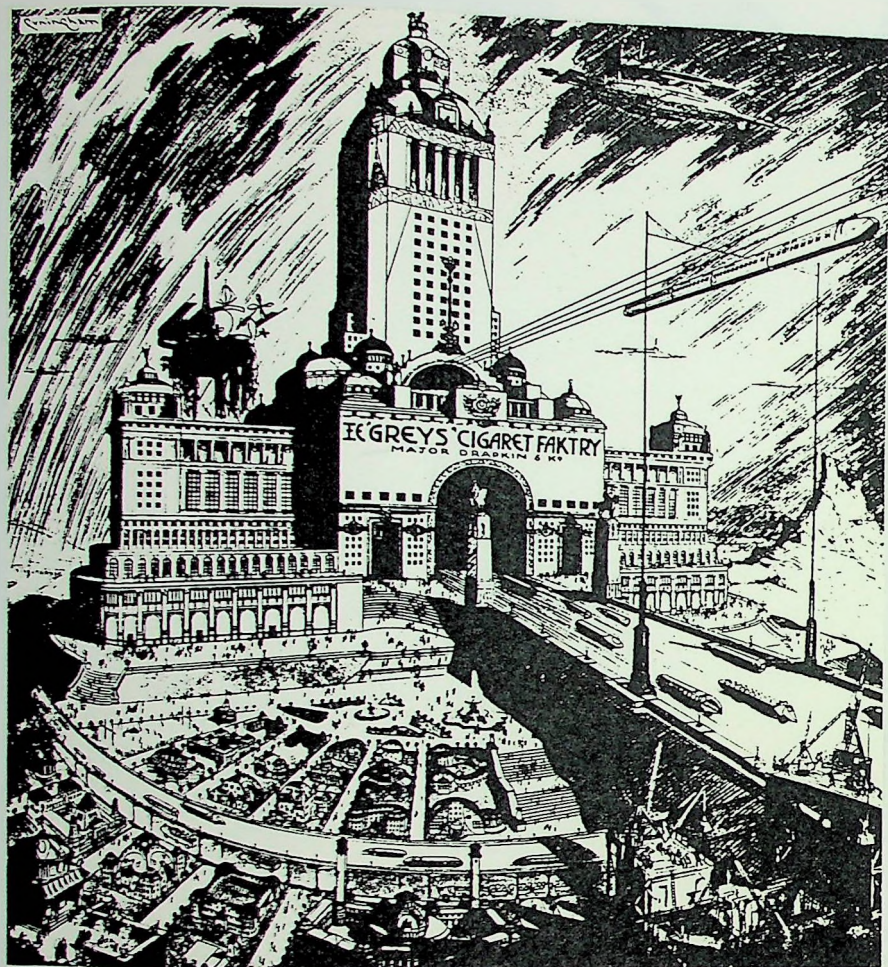In Figures 44, 45 and 46, great attention is paid to modes of
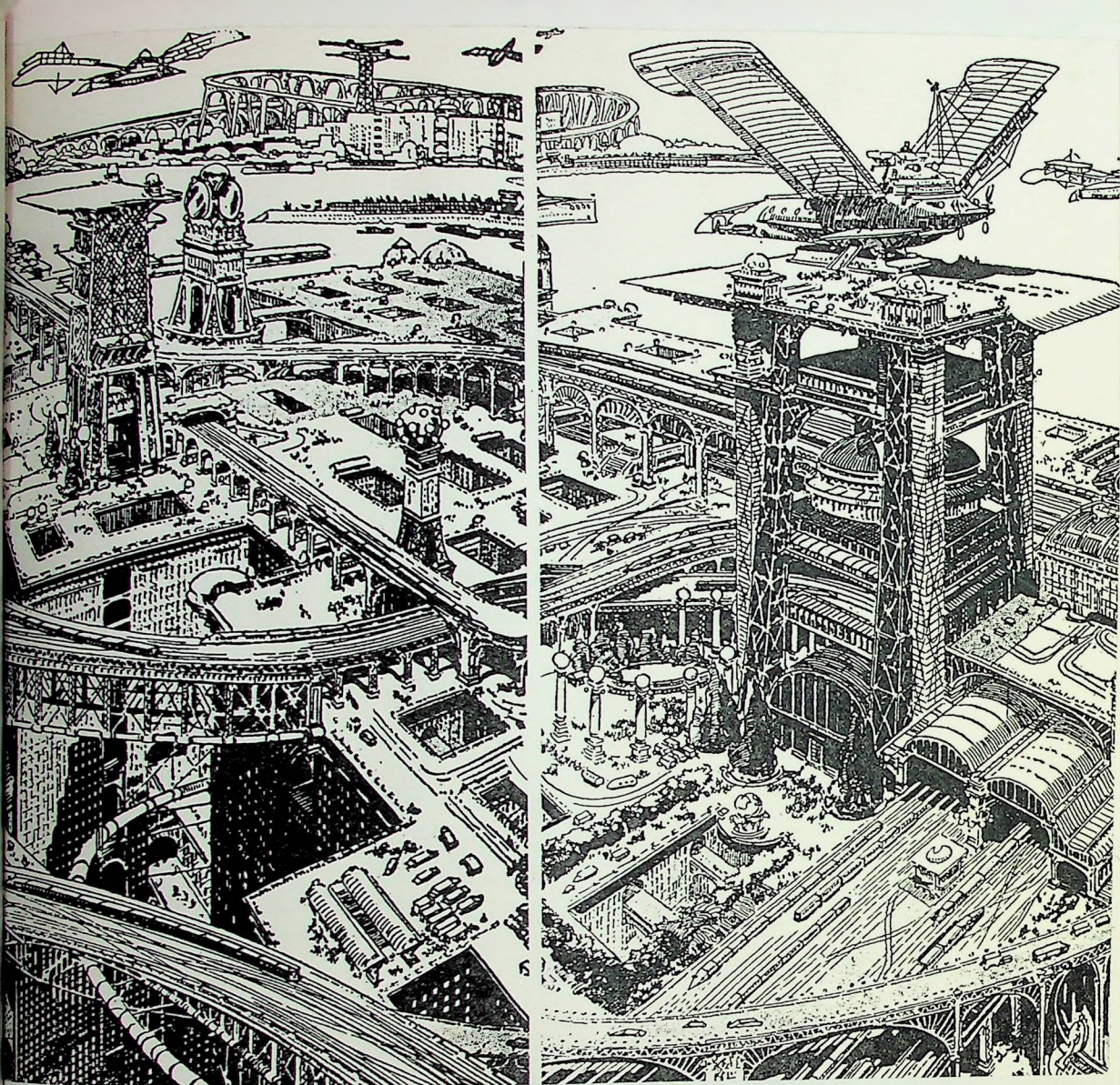
Fig. 44

Fig. 45

Fig. 46

transport.   These 'flying machines' are oversized and impractical, made perhaps of panelled steel.   Therefore, the images portrayed of the transport mechanisms are a contradiction to the extent that, though high futurist technology is implied, the regression to 19th century design is obvious.   (Fig. 44. Domes on Flying Machine).

In Figures 44 and 47, we see advertisements where the writing is totally phonetic implying the abolition of cultural values and the existence of a utilitarian politic.

There is obvious over population, an air of doom and gloom, and a sense of being completely enclosed.   (Fig. 47, 48).   Like Hugh Ferriss' Imaginary City, the hierarchical notion of urban order is too dominant to be effective.

Since 1940, cities have practically disappeared from the world of the science fiction illustrator.   However, during the 1960s, Syd Mead, among others, did use the city as a source for their futures.   Unlike the illustrations of the twenties, Mead includes people who seem to revel in their 'heavenly environments' (Fig. 44 & 45) and therefore his Utopias do not give the same sense of doom and gloom as the ones seen earlier.

But it is also clear, for two reasons, that his work is the product of an age.   Firstly, the illustrations portray the unbounded optimism of the sixties (anything possible).   Secondly, even though Mead attempts Futurist imagery, he has only succeeded in overscaling structures (Fig. 49 & 50), (not unlike his predecessors) and he makes no attempt at innovation.

This argument is further reinforced when we notice the style of clothes worn by Mead's characters (Fig. 49) and that of the cars they drive (Fig. 50, 51), both of which are inherently sixties.

> *Progress is the realization of Utopias.*
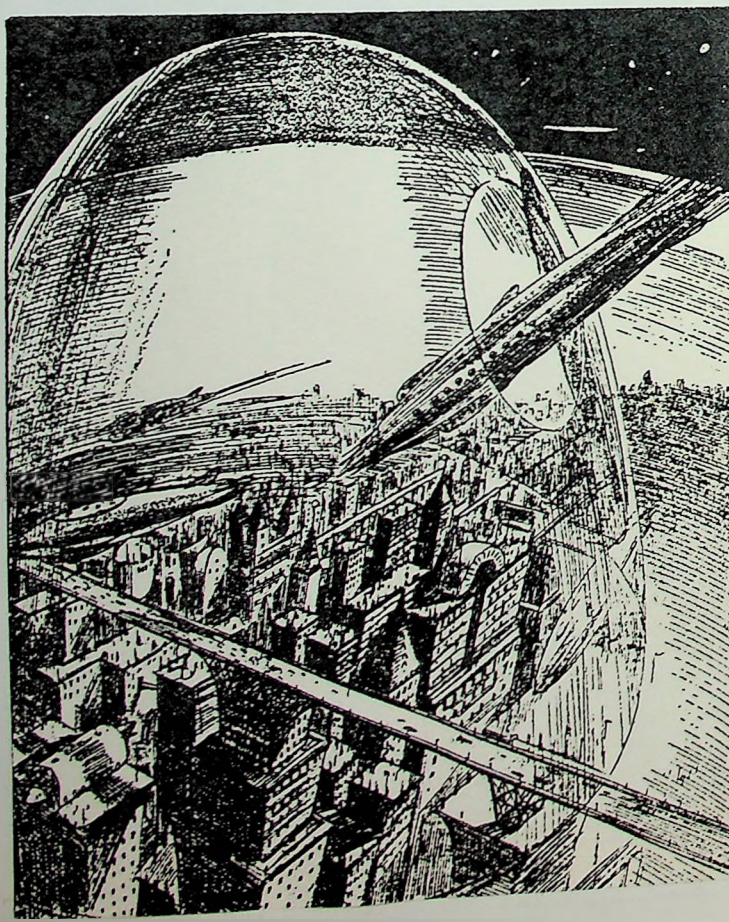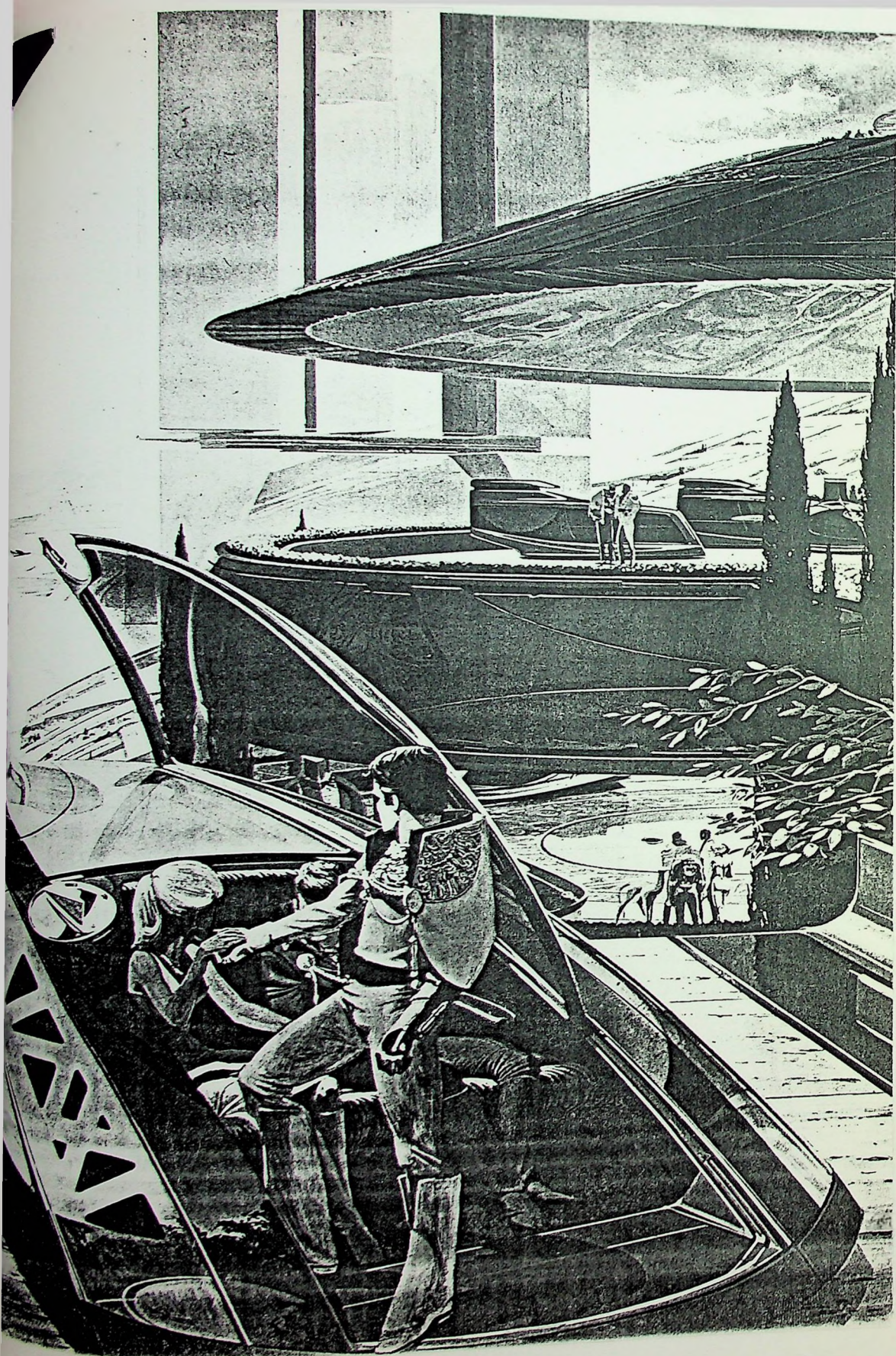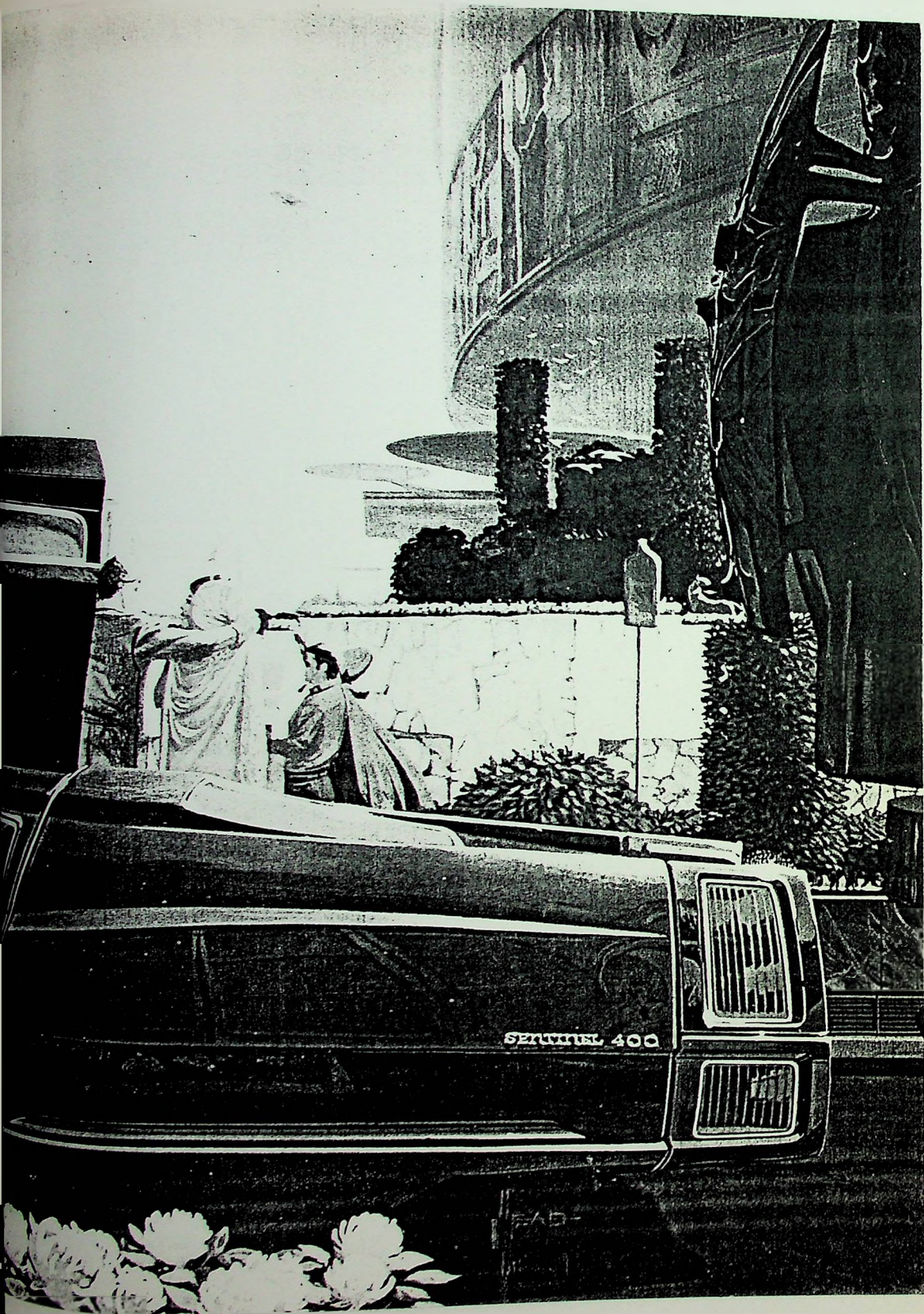> (Oscar Wilde)

Fig. 47

Fig. 48

Fig. 49

Fig. 50

Fig. 51

With the advance of science and technology from the 1940s onwards, science fiction writers and illustrators also progressed, migrating into space and, by concentrating on this aspect of science fiction rather than the urbanization of planet earth, so too, the 'New Vision' for the visionary architects of the 1960s embraced a 'New technological Utopia', facilitating greater mobility and independence from the earth.

Peter Cook's "Plug-in-City" and Ron Herron's "Walking City" are examples of this new mobility.   These ideal cities were self-contained structures functioning independently of nature.

In Louis Trimble's "The City Machine", the city is seen as a separate unnatural and enclosed environment, no longer in contact with the rest of the world.   People believe that they are unable to survive without the life support systems of the city and there is urban paranoia about the "uncivilized" existing beyond the city's walls.   Consequently, the city is sealed for the citizens' protection and the city government forbids citizens from attempting to leave.   Similarly, the proposed freedom and mobility achieved by the "Plug-in-city" and "Walking City" by liberating the dwelling from a fixed plot of land, is in truth really only the freedom to be dependent on these megastructures.

Since the start of this century, the concept of protective/defensive domes has been a strong feature in science fiction's portrayal of the city of the future.   (Fig. 47, 48).   In Figure 48 the illustration of the protective dome shows only one opening, the only means of access into and out of the city, its purpose, presumably being, to protect the city from enemy attacks.   Buckminster Fuller's "Geodesic Dome" over New York City was also designed for protective purposes, albeit, for very different reasons, such as air pollution, extremes in climatic conditions etc.

In A.C. Clarke's "The City and the Stars", a dome is built around a particular city for defensive purposes.   A hundred years later,

however, the citizens have imposed a strong cultural, psycho-
logical and social pressure upon themselves to remain within the
city's boundaries and an unfounded fear remains that the city
is still under threat. The domes mentioned above were all
built and designed on Utopian assumptions, but the chances are,
that these domes could equally lead to dystopia, the dome
becoming a two-way barrier, although protective, also trapping and
imprisoning its inhabitants in its own sanctuary.

Science fiction writers have always had the choice of portraying
their future as Utopias or Dystopias while giving illustrators
of their work an even greater freedom. Visionary architects,
on the other hand, have always been obliged to present the masses
with a purely Utopian architectural solution. However, looking
back over visionary architecture in the twentieth century, we
can see that some attempted Utopias can be seen from our generation
as definite Dystopias.

CONCLUSION

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If there is one immediately recognizable affinity between the
visionaries of the 20th century, it is that most accept the
concept of the city.   The reason, perhaps, is because in this
century, the architect (visionary or otherwise) is almost an
invention of the city and could not exist without it.

Yet, why do so many abhor its present form and, at the same
time, pay the 'city phenomenon' so much respect and homage
by attempting to give it a new image?   Perhaps the visionaries
see themselves as its loving sons - dreaming futilely of
reincarnation, because they cannot bear to watch a withering
'father' growing older, sicker and uglier.   The visionary
architects may well look towards the possibilities of reincarnation
for in the city of today one can see few traces of any visionary
influence.

These influences have stemmed, not from any political or social
aspects of the visionary's Utopia, but from ones of aesthetic or
curiously, ones which are practical to the user's needs.
For example, in the Westyard Building in New York City (Fig. 52)
which is used as a mere warehouse, it is difficult to believe
that the echoes of Sant'Elia's futurist drawings are not just a
little calculated.   Equally Sant'Elian is the imagery of trains
plunging under the rear elevation of the building.   But in real
terms, it is obvious that the tracks existed before the building,
and the site was chosen for the utilization of precious and limited
space.

Mies Van Der Rohe's Glass Skyscraper of 1922 was intended to be a
structure which embraced the aesthetic of glass which he thought
had metaphysical powers.   In keeping with the Expressionist
Utopia, the Glass Skyscraper was to be easily understood by the
masses by means of its minimal geometry and precise delineation.
The Glass Skyscraper is a common sight in the city of today.   We
can see that they are mostly owned or occupied by large businesses
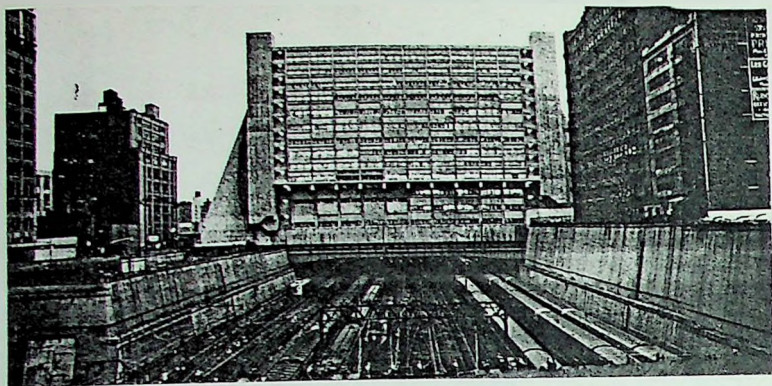or corporations, whose sole aim is the generation of capital wealth.
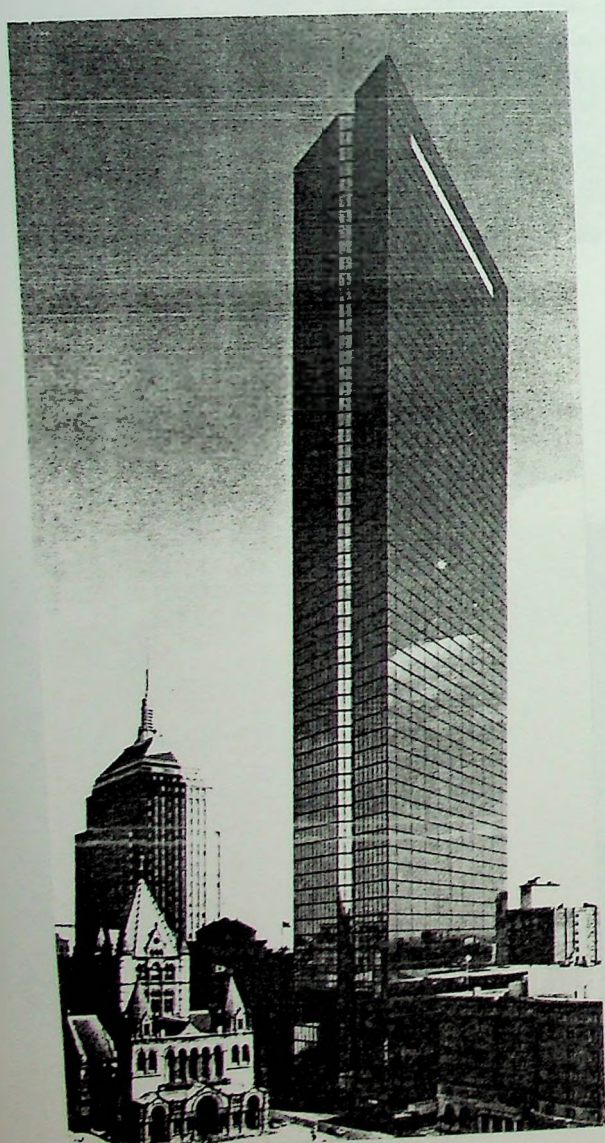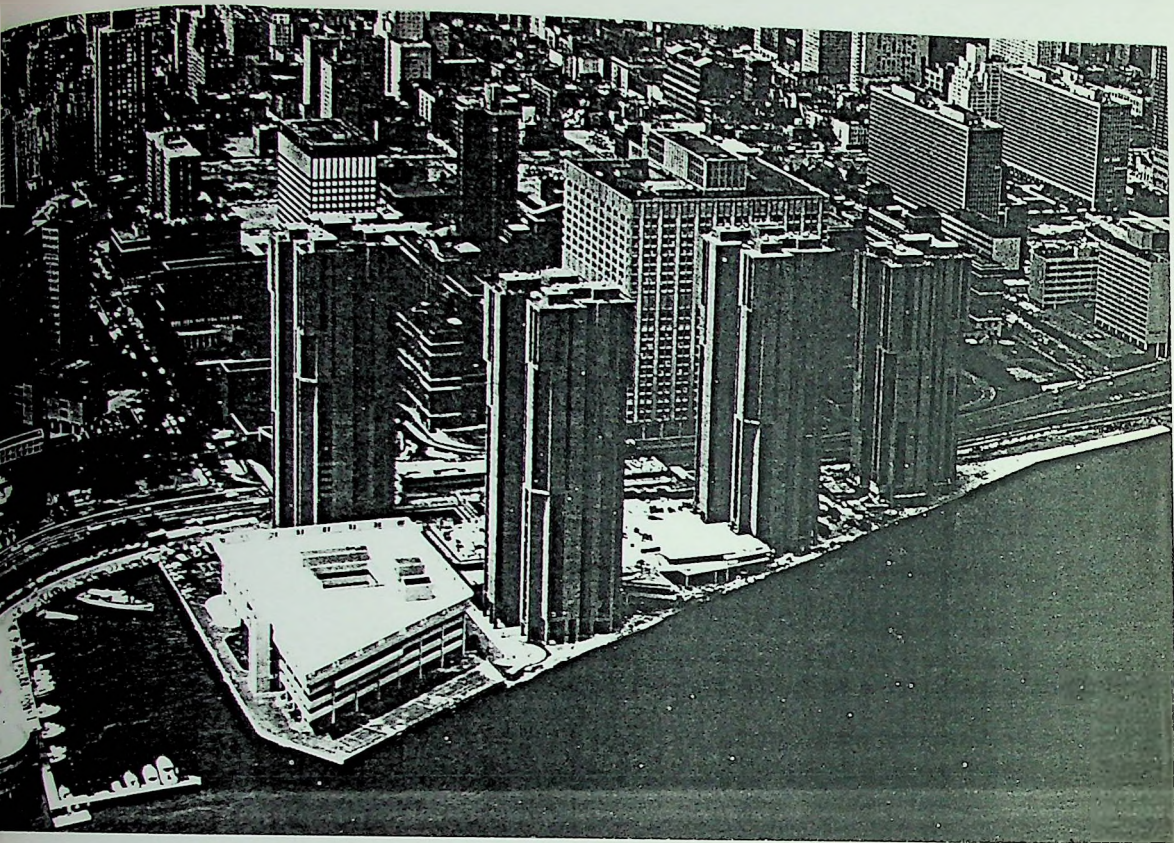
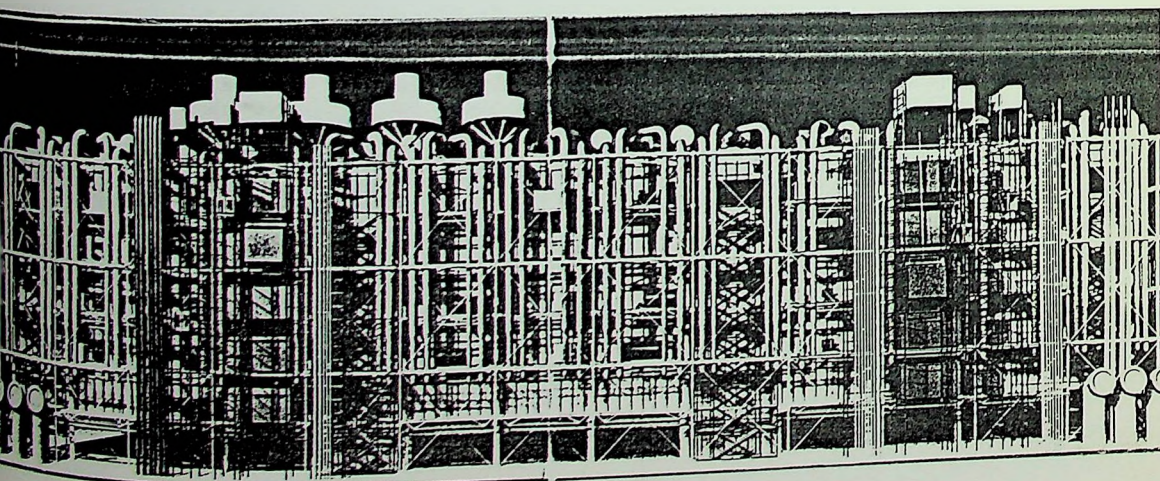Fig. 52

Fig. 53

Fig. 54

Fig. 55

Even though many were designed with Miesian ideas in mind
(simple geometry, light, visual appreciation of glass) these
considerations have played minor roles. The main factors have
been speed of construction and more importantly, cost. (Fig. 53).

Hints of the style and layout of the buildings as proposed by
Le Corbusier in his "Radiant City" can also be seen in today's
urban environment.

In Waterside, New York (Fig. 54) there are obvious influences from
Le Corbusier's visionary plan. But again, their existence is
not due to the fact that the planner has considered Le Corbusier's
Utopian arrangement but merely because the design and layout
suited his particular requirements.

The "Centre Pompidou" in Paris (Fig. 55) designed by Renzo Piano
and Richard Rogers, bears all the hallmarks of the Archigram and
Megastructure movements. It seems likely to remain for a long
time the most complete monument to the decade when the concept of
megastructure was born. However, a monument is all that it is,
and it doesn't even begin to realise the Utopias, Archigram had
dreamed of almost a decade earlier. For all its architectural
and innovative megastructural qualities, it merely stands as a
reminder of a bygone Utopian dream.

It is true, then to say, in terms of achieving a reality, the
success of architectural Utopias in the 20th century has been
minute. It even seems if they were swamped in the realm of
idealism and therefore doomed from the very start.

Nevertheless however swamped these ideas may be, hope is there.
Hope has always been fuel to the visionaries and even if the
confusion and problems of the present day are desperate, the
despair does not seem to affect those who accept the challenge
to struggel against it with their ideas, their images, their Utopias.

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