

T 65

THE NATIONAL COLLEGE OF ART & DESIGN

MAN & NATURE

A THESIS SUBMITTED TO: -

THE FACULTY OF HISTORY OF ART & DESIGN & COMPLEMENTARY STUDIES IN CANDIDACY
FOR THE DIPLOMA by

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I N T R O D U C T I O N

This Thesis deals with man's alienation from nature. First it deals with urban environment and attempts made in architecture and art, to create a more livable environment. The Thesis overlaps on a number of areas; it explores movements in art e.g. painting, sculpture and architecture that explore structural qualities in nature. It is difficult to cover each area in context because each movement of art and architecture has effects on different levels of society whether it be aesthetic, sociological or political.

The latter part of the Thesis deals with the idea of post-industrial society, education, and examines the theoretical aspects of man's alienation from his environment in western society. This point is explored by examining the beliefs of tribal societies and the spiritual beliefs of man's place within nature both in the east and west; particularly the resurgence of interest in primal beliefs in the west are covered.

It is hoped also that the Thesis will give the reader an insight into the thoughts and ideas that I have been occupied with for some time now and will give an insight into my work.

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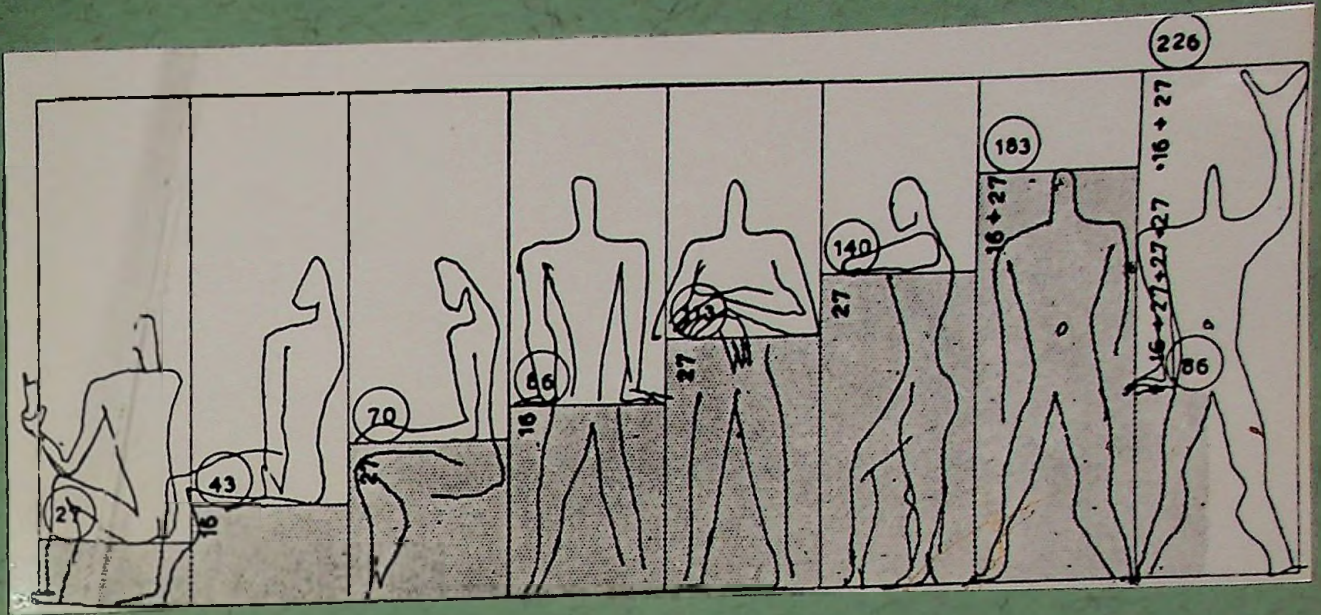


Fig. I
- The Modular - Le Corbusier.

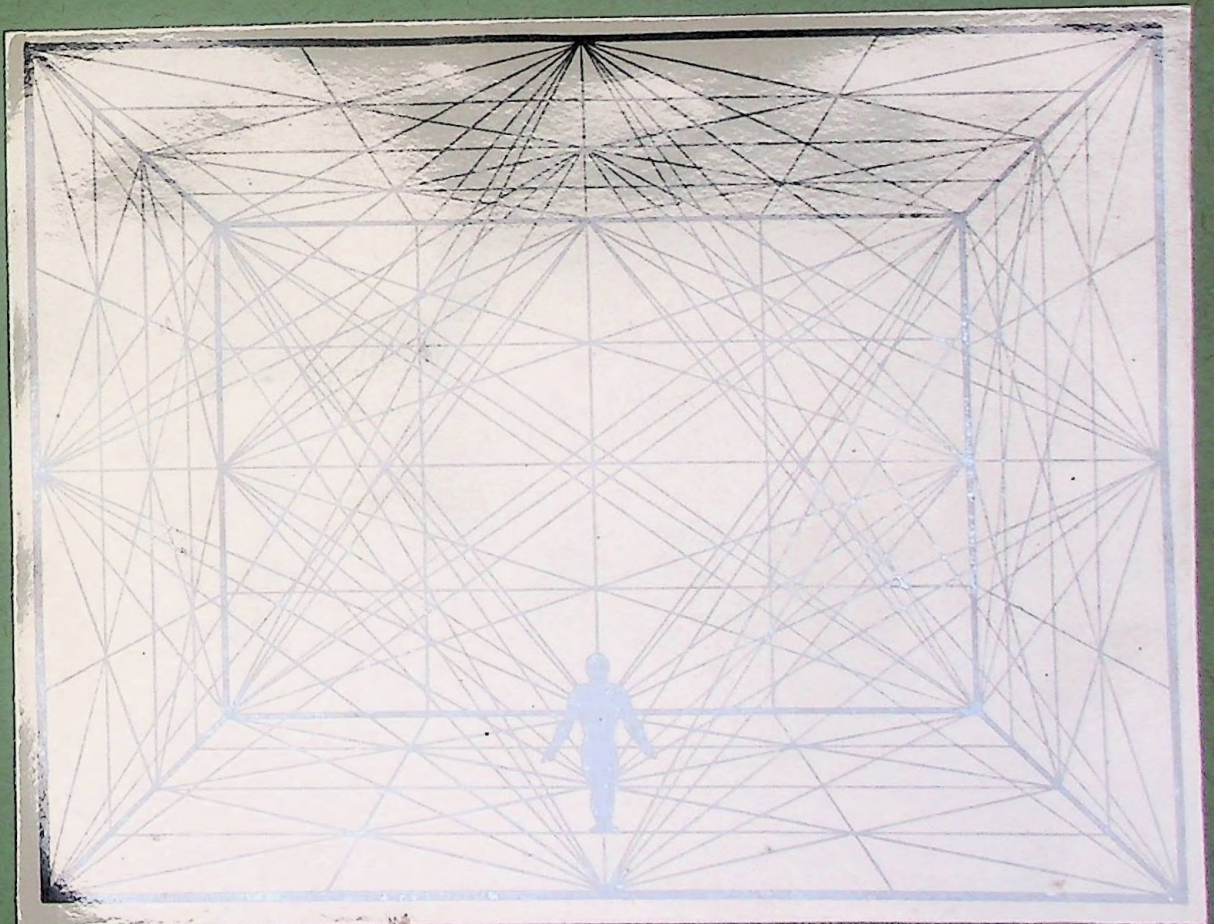


Fig. 2
- Oskar Schlemmer - Theatre space.

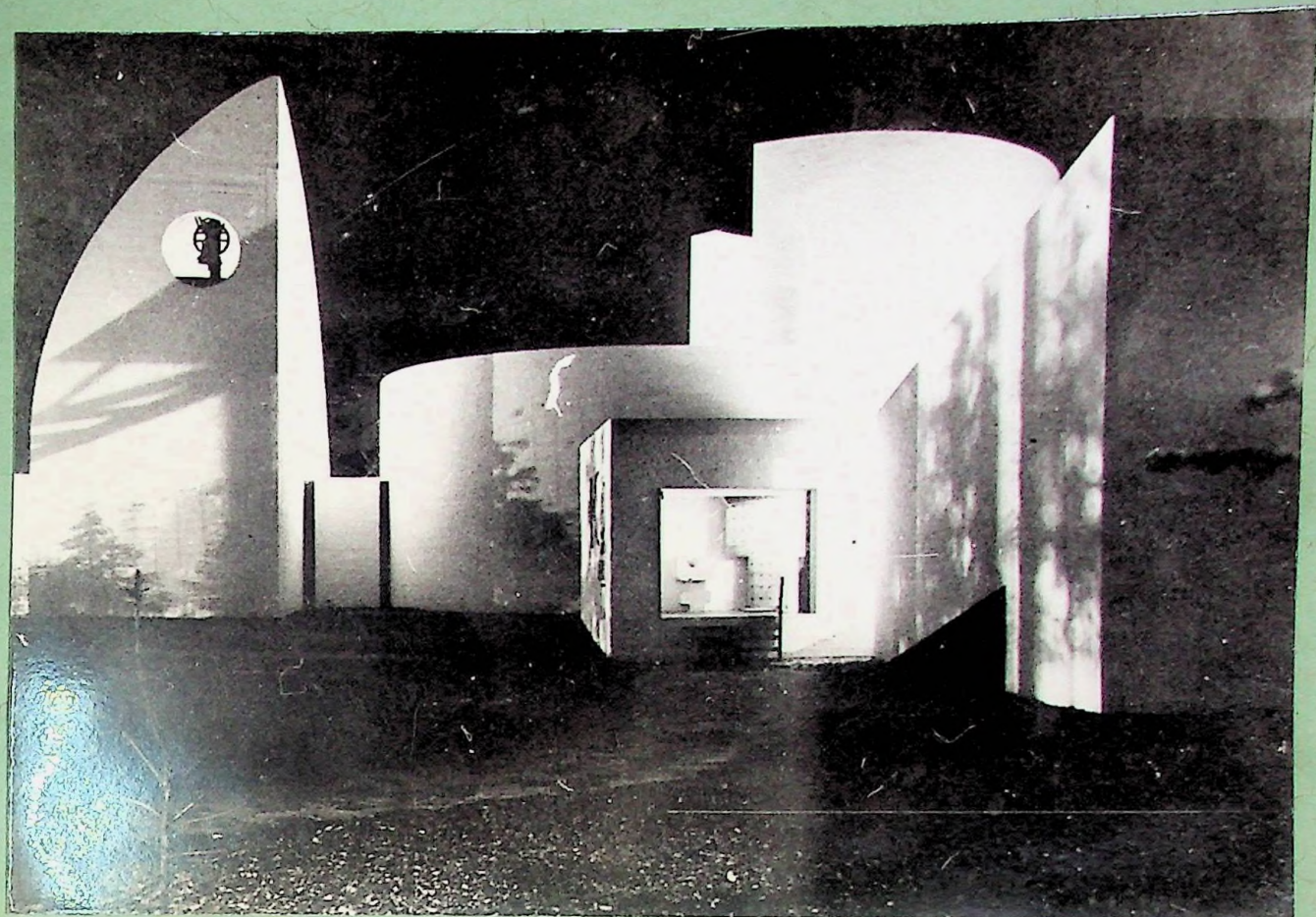


Fig. 2

- The influence of sculpture on architecture,
Church of Carmel De Valenciennes St. Saulve (Nord France).

He talks about poetry referring to the harmony between perceived images. He also creates a relationship between a city and poetry; the creation of a city should be in harmony with nature. He then discusses geometry as a tool for a new age; also the idea of humanisation, harmony and geometry comes into focus in this architecture, (Ref. Bibliography - No.48). "Leonardo's mode of thought, like that of Klee's, covers every aspect of being; it takes in the entire universe".

Johannes Itten, an educator at the Bauhaus, in his book Design and Form states, "a teacher who communicates with his students nothing but the syllabus laid down by the authorities, using methods he learned at the teachers' training college, can be compared to a dispenser of pills made up according to a prescription who can never be a true physician".

Architects, when they are presented with a problem of designing a housing estate or a large urban development, should look for ^a more creative approach with the help of artists, city planners, ^{psych}psychologists and landscape artists. With a group of people like this, new ideas could be evolved. Indeed a panel of consultants in relation to Government and civic bodies should come together in order to create a more livable environment. In the U.S.A. Edward Hall has developed the science of Proxemics. This is the study of living things in relation to their environments. He experimented with rats and discovered that in highly urban

situations, simulated by building similar spatial models of cities, rats were very disturbed and showed abnormalities and deformities. This directly relates to architecture and its effects on man. The relationship has to be a two-way thing.

One architect in Denmark designed a town within a forest. Instead of just blindly cutting out an area to build houses on, he preserved the nature, contours and character of the forest; he created an inter-related balance between architecture and nature. Viewing a city from the air, one can see the failures of architects. The idea of architecture related to surrounding nature brings up also the idea of architecture that fits into the landscape, related to the same constructional principles as nature.

One architect who has achieved a lot in this field is Frei Otto. He is concerned with the problems of structure, how to achieve more with less. (Ref. Bibliography - No.8). Born in 1925, the son and grandson of sculptors, he studied architecture in Germany. Starting with the study of simple tensile structures he moved on to more complex structures.

Modern architecture was becoming more and more institutionalised and was being criticised⁴⁶ by its disciples in the 1950's. Denouncing 'dogmatism' in favour of a more creative, rounded solution, Eero Saarinen wrote The Six Broad Concepts of Modern Architecture, published in 1953, which was translated into German by Frei Otto. At that time conferences were held where the main platform of new

architects who believed in more flexible concepts in architecture were able to express themselves. It was close to the end of the 1950's when Sigfried Fiedian produced an article called 'The need for imagination'; he was looking for ^{the} resurgence of communal spirit of expressing the emotional aspirations of our civilisation. This he felt could be achieved by a new shell structure. A shell structure representing a new outlook on architecture, no longer restricted by materials but ^a suspended structure that could be erected anywhere. It is interesting to note the relationship between architects and artists in their aim at a reduction of geometric forms through the work and influence of Cezanne. Cezanne's last painting and his watercolours point towards Cubism. Courbet preceded Cezanne in these evolutionary developments. Courbet's approach was very down to earth, with no concessions to abstract ideals of beauty, subject or form. However the Impressionists kept alive the spirit of naturalism but their painting was less solid than reality. The Renaissance tradition reached its limit; illusion could be carried no further from 1880. Artists like Seurat, Gauguin, Van Gogh and ^{the} Nabis had refused to recognise the eye as the sole instrument of understanding, by reducing the descriptive role of colour and using its structural and symbolical connotations. They were more concerned with expressing an idea from 1890 onwards. This came about with the Fauves in 1900 with their expression of colour. Cezanne's paintings



Fig. 4. - Sculpture of
Naum Gabo.



Fig. 5 - Sculpture by
Constantin Brancusi,
1920, marble.



Fig. 6
Tree 1911 - Piet Mondrian.

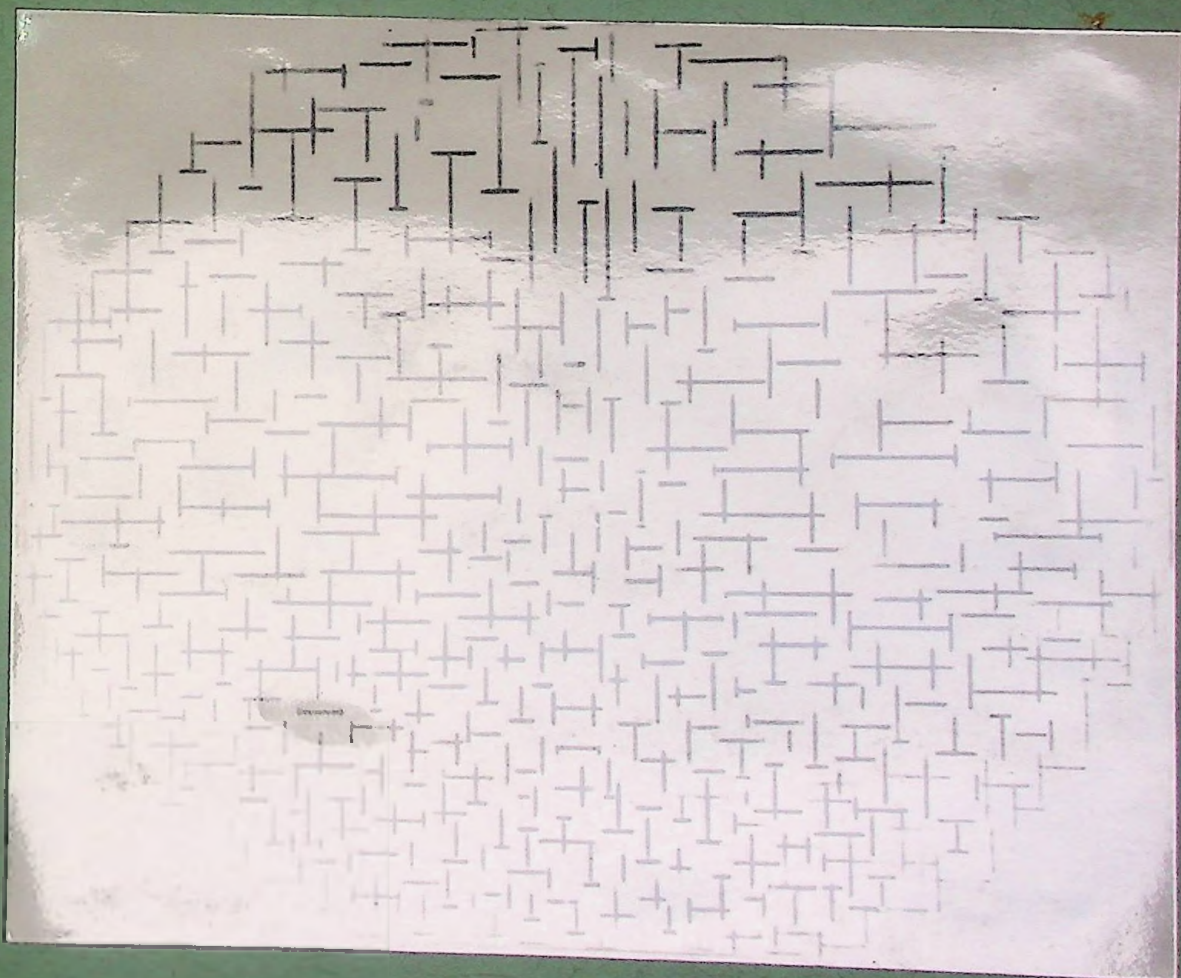


Fig. 7
Pier and Ocean 1915 - Piet Mondrian.

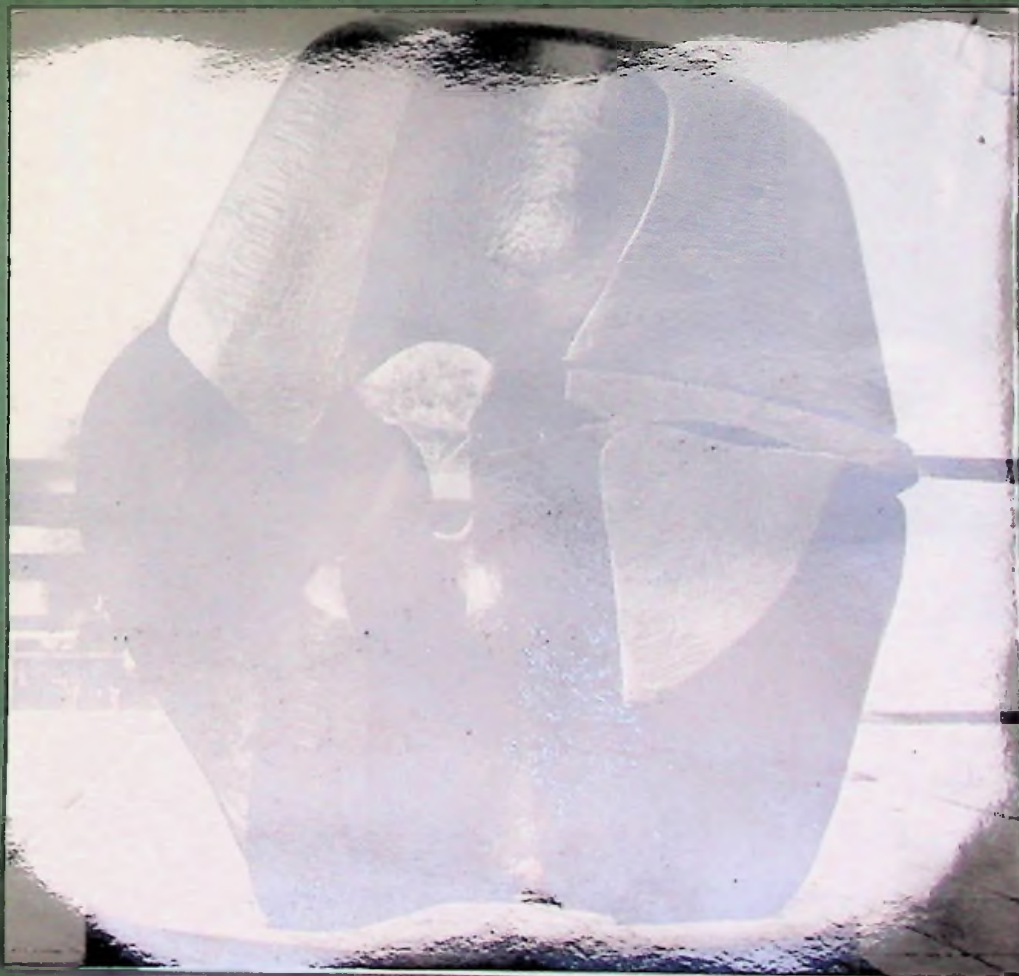
Fig.8

- Henry Moore - Reclining figure, external form, 1953-1954.



Fig.9

- Henry Moore - Locking piece 1962.



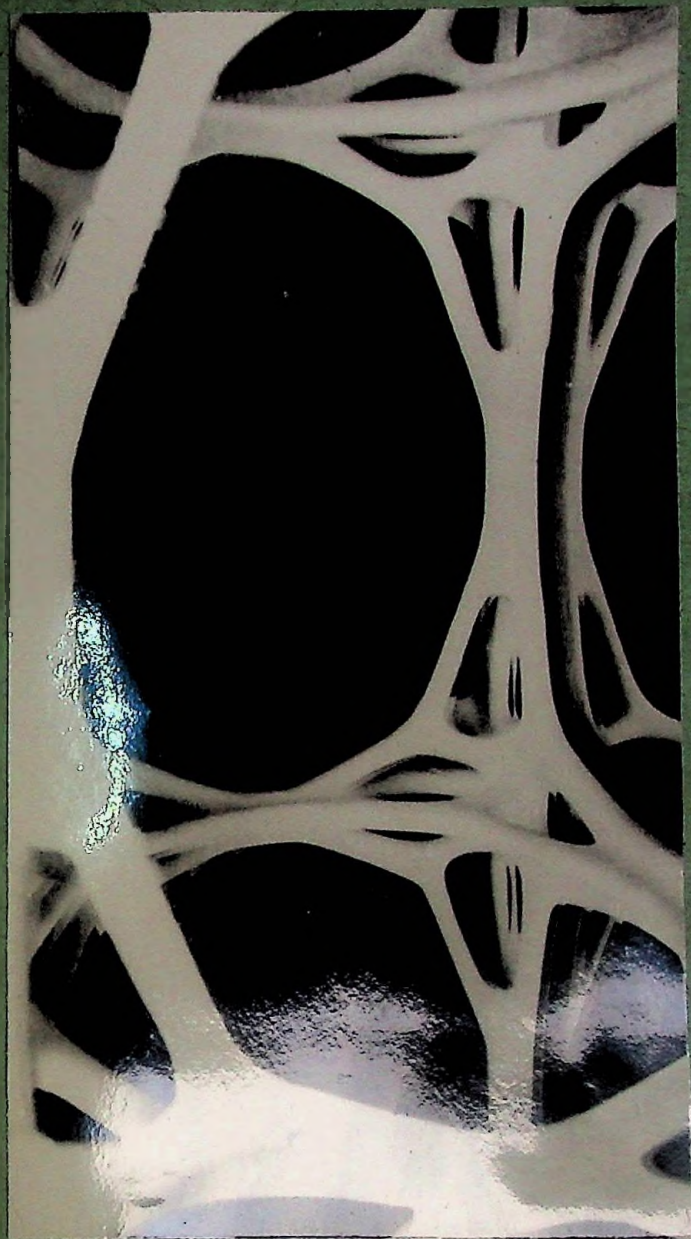
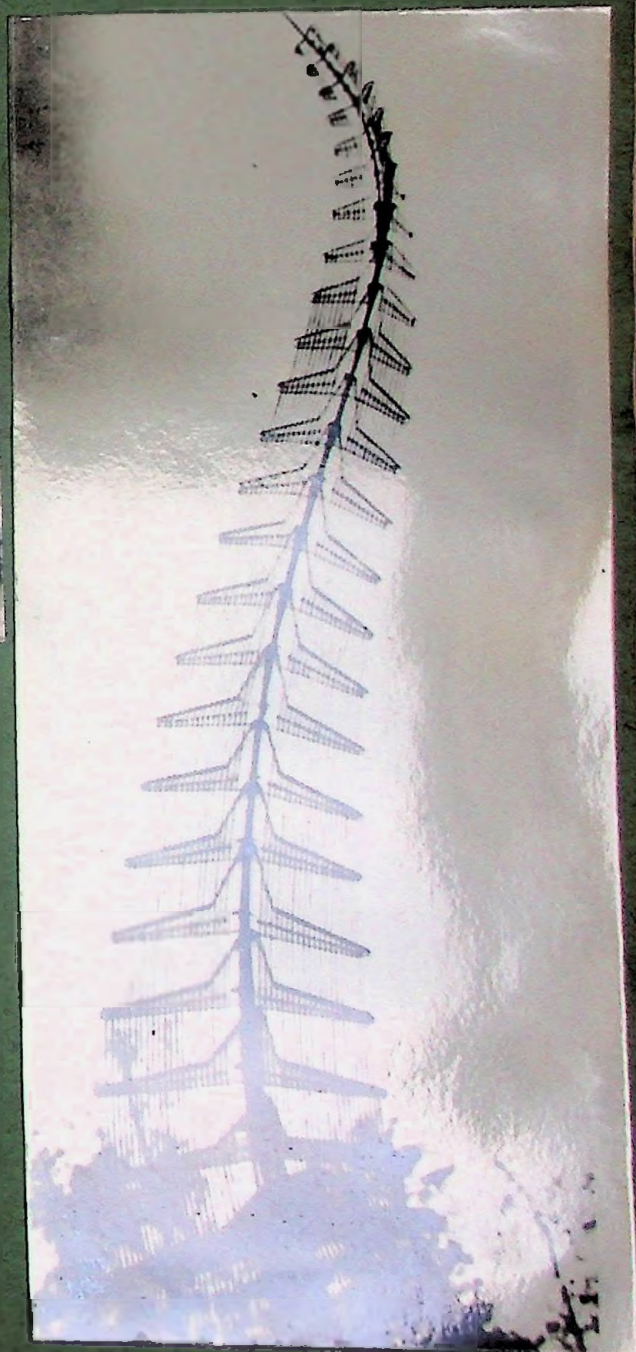


Fig.II

Frei Otto - Space frames 1962.

Fig. 10. - Frei Otto -
Flexible column project 1963.



chemistry and power supply. All these areas are explored efficiently by a close study of plant technology.

Joseph Paxton, entered a design for a building in the competition that was launched to house the 'World Fair Exhibition' in London, in 1851. Paxton, a very creative inventor, came up with a structure that was revolutionary at the time. The underlying vein structure of the royal water lily (*Victoria Amazonia*) was utilised to form the constructional principle. Otto has used principles based on the 'vertebral column' tree structures and space frames which have strong structural relationships with nature. He understands that there is a sculptural quality in his work but he maintains that they are just a physical visualization of the laws that govern the nature of materials.

Frei Otto approaches his work from the knowledge of structure, and his forms have a sculptural quality. In freeing architecture from the structural and material restrictions, Frei Otto makes it more liveable for man, by reducing constructional elements, allowing the adjustment of interior spaces according to the changing needs of the occupants. He sees the predicament that contemporary science faces, the many non-objective factors that enter into building as well as any other human activity. The balance must be created "if scientific criteria are to succeed in re-establishing the primacy of human needs", searching for a relationship of architectural design for human need and vice versa.

(Ref. Bibliography - No. 8).

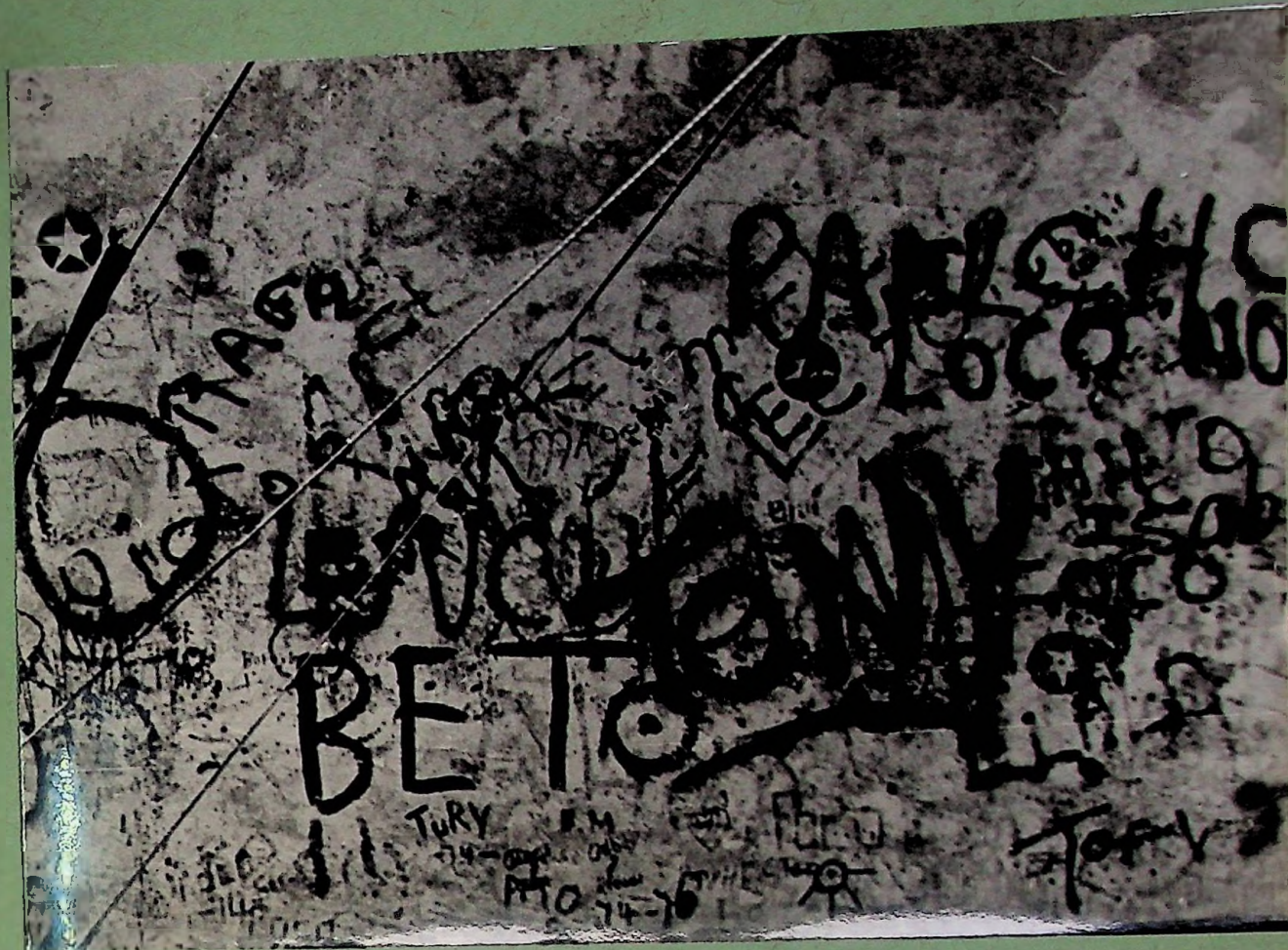


Fig. 12. - Grafitti (Magic Symbols).



Fig. 13 - African mural art (Hausa).

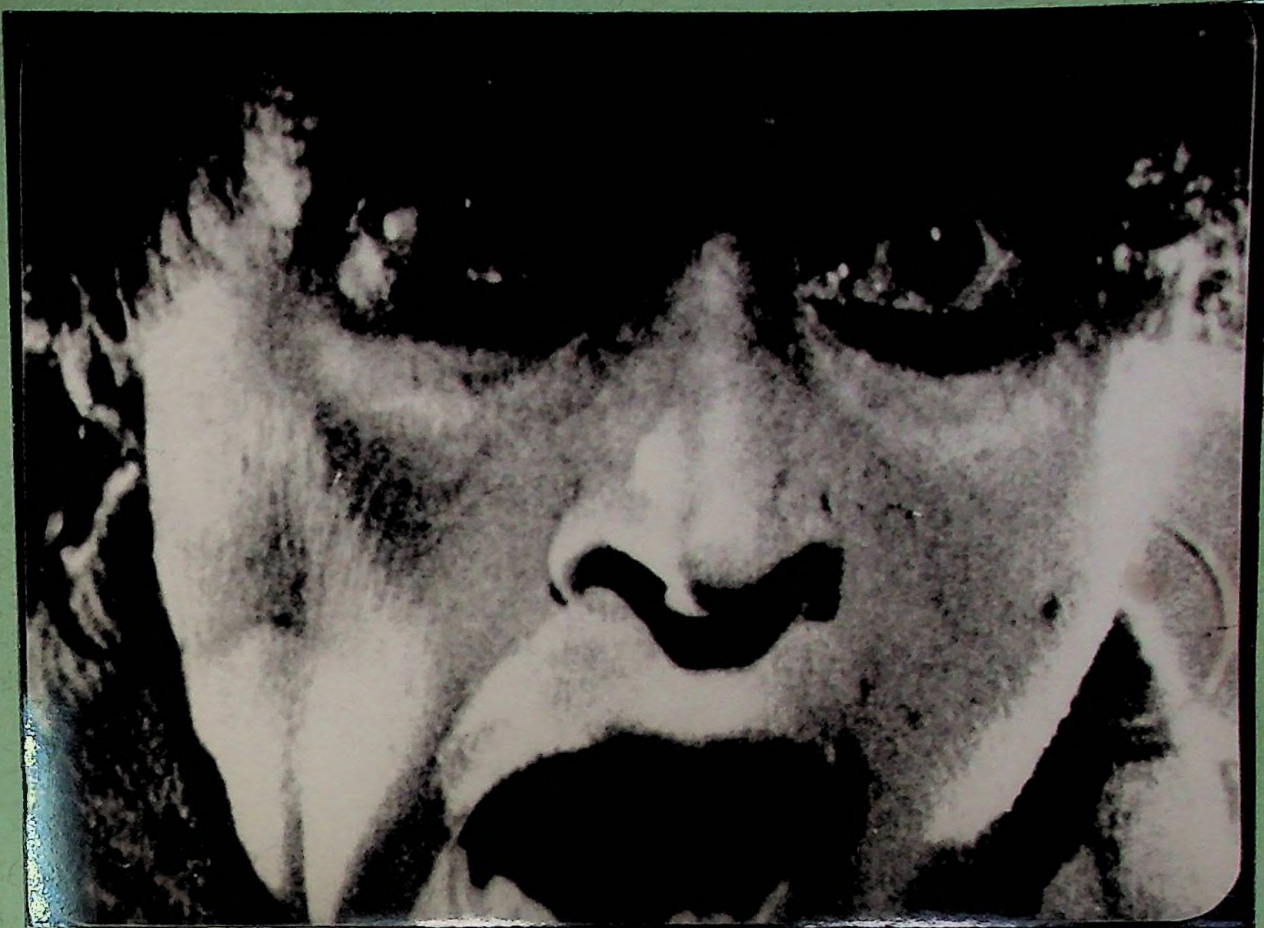


Fig.14
Sergei Eisenstein. Still from Battleship Potemkin.

Their influence of Constructivism on film medium



Fig.15

- Matrix based on structures in nature.

Rauschenberg broke the barriers in painting like Brecht in the theatre or Eisenstein in film. They all innovated a new aesthetic that transformed their art into a vivid revolutionary art-form. In the same way the new art form of cinema brings together the use of many different disciplines to create a total art. Bringing together sound, visual, time and space etc., some film forms have had added to them scents and other sensory stimuli - such as physical movement, all-around sound. This idea has close analogies with that of the movements in environments. Consideration should be taken of our whole experience of reality and this includes other senses i.e. sight, sound, smell, taste, touch and kinaesthetic sensations of our bodily movement. Paintings and sculptures by their very nature tend to be permanent. We have no documentation of the medieval pageants and elaborate performances which Leonardo De Vinci designed. Works were enacted in the street collectively using music, verse, costume and mobile constructions on floats. Vasari designed triumphs for Cosimo in Florence and Rubens designed processions. In England, Inigo Jones and later James Thornhill designed spectacular masques for performance at court. In Japan the artist Ay-o, who creates Rainbow rooms of colour environments, extends colour into three-dimensional space. In England childrens environments have been built, labyrinths of colour environments. In America they have developed childrens environments based on ^ageometric three-dimensional matrix related to structures in nature, (See illustration).



Fig.I6

- Close up of Matrix.



Fig.I7

- Interior view of matrix.

In contemporary developments the argument has been put forward that spectacles, parades, festivals and displays fail because they are carefully circumscribed so as not to allow any interference with the work routine. The event is out of reach of the people's grasp; the role given to them is that of passive consumer without identity. The problem now is to realise their new forms of spectacle which are non-alienated reaching man and increasing the scale of excitement which puts in his grasp the expanded territory to act in.

To refer back to the Bauhaus which attempted to bring together the different aspects of art e.g. the influence of Piet Mondrian contributed to the special use of colour on both internal and external surfaces of buildings.

This new approach to architecture brings together people like scientists, scholars, artists, psychologists and architects. One of the reasons why colour has become disused is that architectural plans are usually drawn out in black and white perspective plan and elevation as the method of communication; little attention is paid to coloured form in space. In Colour and Architecture the separate paths of architecture and art are discussed. Victor Vasarely, the Hungarian-French Op Art painter, has become concerned with the separation of the artist from the environment. Many problems, not only in architecture, date back to the Renaissance where the split occurred. The increased specialisation of values within art and science, the birth of the individual and the concept of a 'work of art'. During the Middle Ages painters and sculptors were craftsmen who worked within the equivalent of building



Fig. 18
- Snowflakes - simple geometric radial structure.

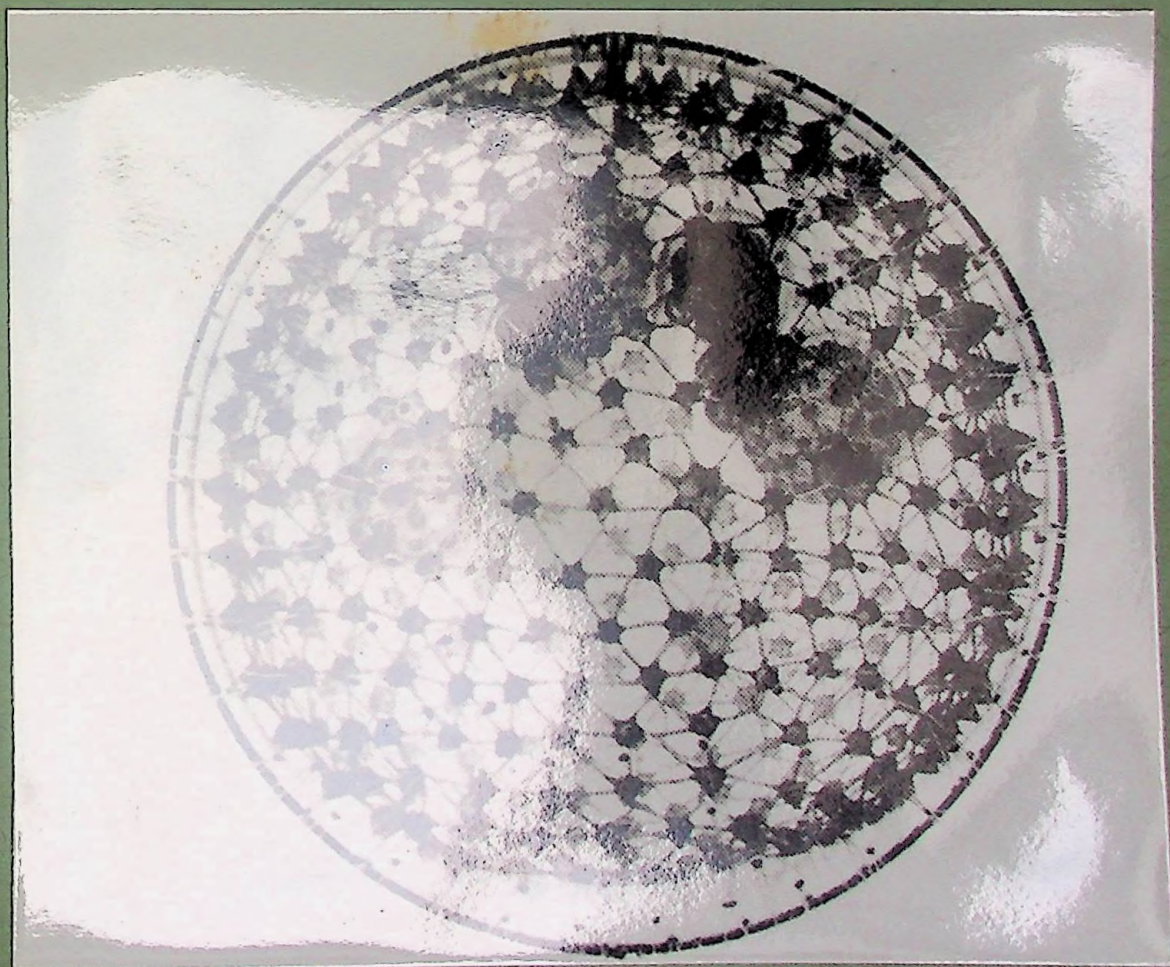


Fig. 19
- Volvox - simple organism, radial structure.

construction teams, but the growth of Humanism created the gradual separation of architecture and art. Everything became specialised into separate entities in architecture and art after the Renaissance. Indeed this is the main problem with modern society today. Gropius tried to remedy this in the Bauhaus. He believed in the re-birth of craftsmanship as being the common denominator between architect, designer and artists, etc.

One architect who has come up with viable solutions is Kenso Tange, a Japanese architect working in Tokyo. He created the fusion of modern architectural principles with that of the old Japanese traditional building. He utilised Folk building used by all the people instead of copying aristocratic buildings. He has fused new variations into many old themes. He has evolved an architecture that solves modern living problems yet that contains elements of tradition. The result is the Japanese people do not lose their sense of identity or culture, where his architecture is concerned at least. Tange's concept of a city is that of a living, growing organism. It must be flexible and expandable. As the pattern of life grows, becomes more complex and expands, it is always possible to build on to the existing structure of the vertebrae. Tange's plan for the changing of the radial city into the linear metropolis along a central civic axis has come from his detailed study of the evolution and growth of organisms in nature, a point I discussed earlier in relation to Frei Otto. The amoeba and simple organisms have radial structures, but more advanced organisms, such as vertebrates, have linear bone structures with parallel radiations. He states "the centripetal

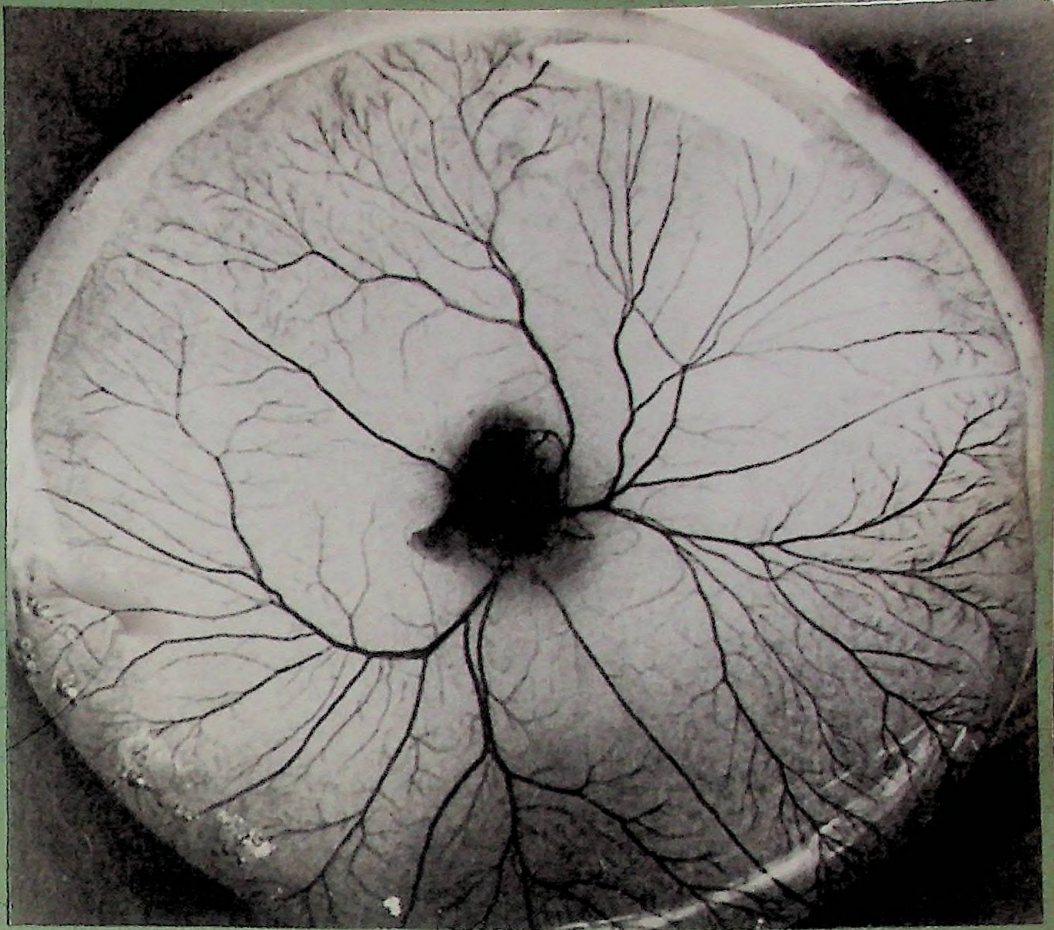


Fig. 20

- Interior of chicken egg. Development of radial structure.



Fig. 21 -

The most complex
linear base structure
with parallel
radiations.

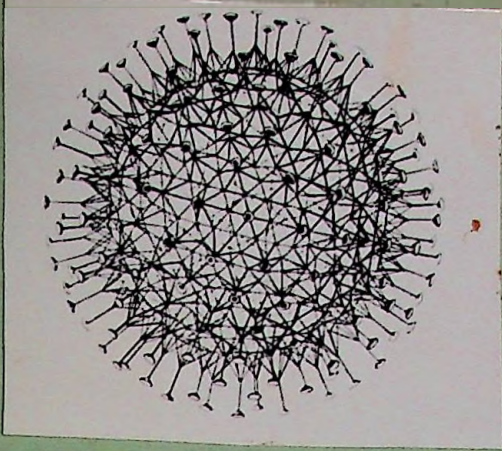


Fig. 22 - Simple organisms.

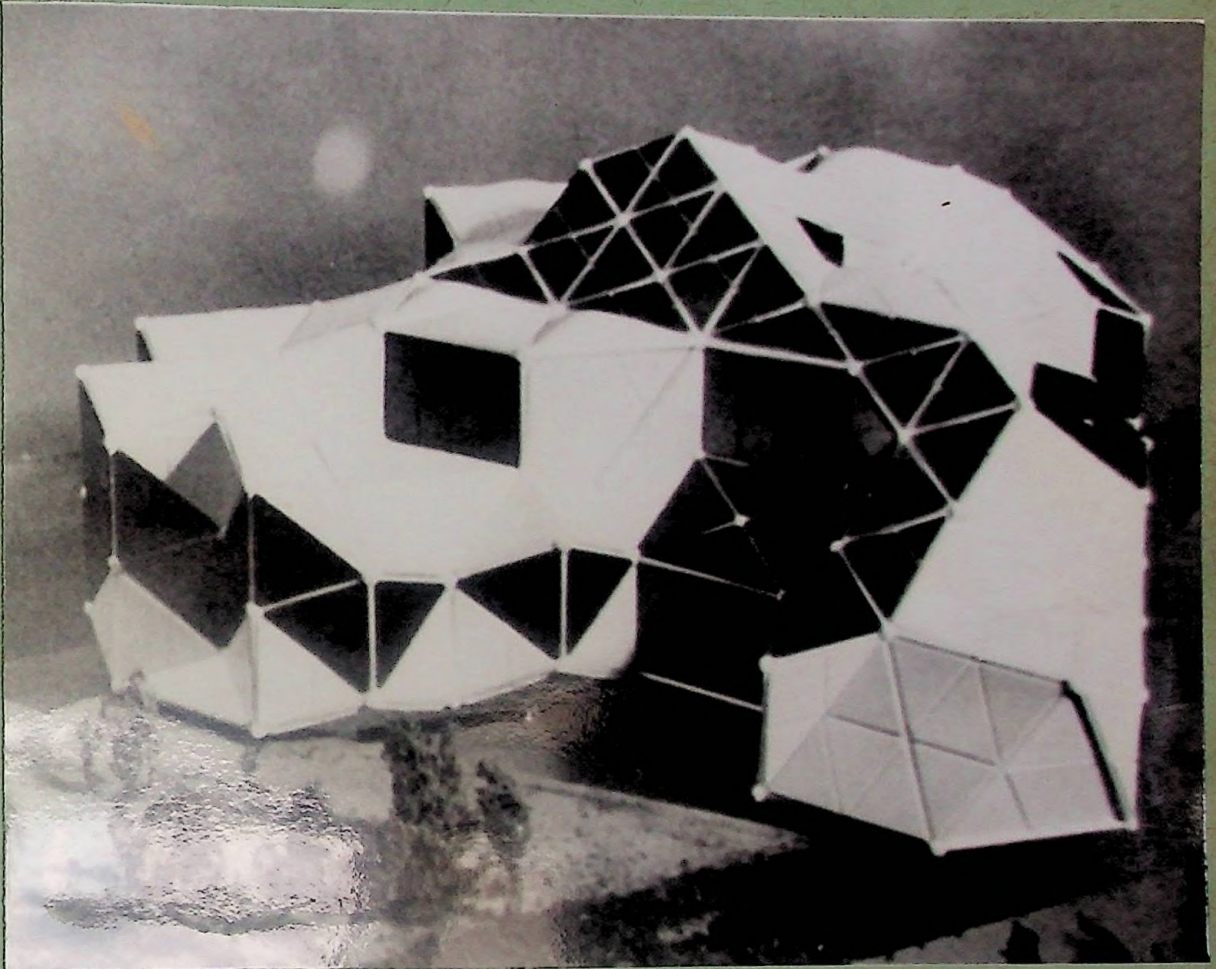


Fig. 23
Architectural structure based on natural structures.

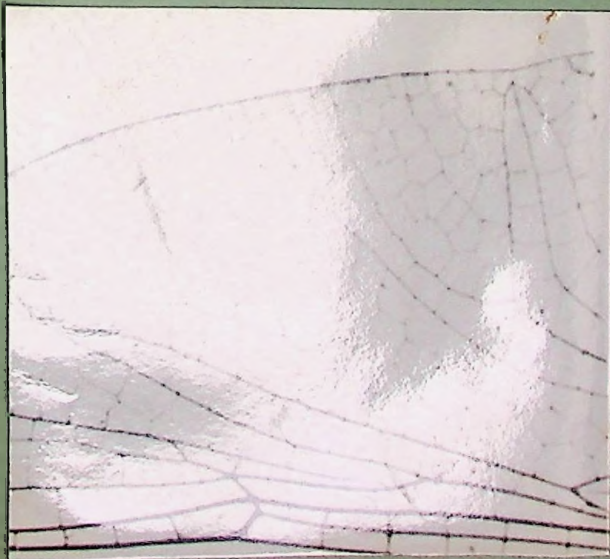


Fig. 24 - Wing pattern.
Structural principles that
can be translated into
architecture.

pattern evolves into a system of parallel lines grouped around a spinal axis in which arteries develop" (Ref. Bibliography - No. 50). In like manner the process whereby a vertebrate's body hatches from an egg illustrates the possibility of centrifugal development into a linear spatial one. In a similar way Buckminster Fuller has developed his structures from insights into the building blocks of nature. In nature as in the case of tetrahedron lattices (a solid figure bonded by four triangular plane surfaces) of organic compounds, the basic shape has been a pyramid in combination with octahedrons (a solid figure having eight plane faces, ordinarily triangles). Here comes the basis for the most economic space filling structures. By relating natural structural phenomena, Fuller created the geodetic dome which can span large dwelling areas.

John McHale, director of the Centre for Integrative Studies, State University of New York, states, "knowledge is now just an accumulation of new facts and figures by reduction of unrelated and irrelevant facts into new conceptual wholes; ^{Today} New simple and inclusive concepts e.g. $E=MC^2$, RNA/DNA or information explosion = conceptual implosion". This is what the Renaissance achieved, the explosion of knowledge about man and the universe created a new concept of man as an individual with tremendous individual potential. P.E. Vernon in his book Creativity has often been associated with open-ended divergent thinking. This divergent thinking is an aspect of the artist, scientist, inventor potential

that are discussed in Buckminster Fuller's book 'The Arts and Man' Ch. V. Fuller states that life destroys our individual potential and capabilities. By the time they mature they have lost one or two of their capabilities. A refusal to even believe in intuition has led many scientists to an exclusive specialisation. Fuller believes that we are more sub-consciously operative than consciously operative. He sees intuition as a shuttle between conscious and sub-conscious. The analogy can be made between the aesthetics of Kant and Schiller who searched for the balance between dualities. The child mind, like the spirit of the Renaissance, exists in a pure state of inventiveness with no inhibition about its creative capabilities. Our society today is blocked by set patterns and functions that change little within our lifetime. The growth of the individual is stunted by the pattern of non-growth. This can be seen clearly in our present educational structures, concentrations on logic while restricting the other aspects of the self. Childhood, in fact, is a modern idea, the origins and history of childhood began after the 14th. Cent. with the development of the bourgeois and empirical science, this concept of the child began to evolve. The effect of institutionalisation is explored by Ivan Illich in his books 'Celebration of Awareness' and 'Deschooling Society'. He examines the patterns and growth of the individual and points out how present day educational restrictions hinder the child's development. The development of a broader curriculum like that of A.S. Neill in Summerhill allows the creation of an environment for the child, helping

his potential by giving him a choice of subjects. Illich states that modern universities, even with all their facilities, are more primitive in structure than those of the medieval universities. In the medieval era one could argue and discuss points with one's lecturers; today discussion is outside of the lecture theaters, on the fringes of the campus. Illich, and Neill examine an approach to human development which is centered around their needs rather than the up-holding of a system of education that is inflexible towards the individual. This industrial revolution was primarily about the development of economic growth. * The post-industrial revolution will primarily be about the development of people. There are many psychological and social barriers that prevent our development today. A change in direction and emphasis from the outer-world of material things to the inner world of human beings is needed. This is where the civilisations of the east have much to offer. The emphasis on economic growth must be shifted to human growth i.e. the decrease in dependence on big organizations to increasing self reliance. Schumacher explores the possibilities of a new society on a small scale in his book Small is Beautiful. In relation to this transformation from having an emphasis on material things to the spiritual, the French Jesuit philosopher, Pierre Teilhard Chardin, stated that human evolution will become a "synthesis of the material and the physical world." With the counter reaction to our present culture, Ginsberg Goodman, Laing and Marcuse came together to discuss its development and its effects on present day culture.

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(Ref. Bibliography - No. 23)



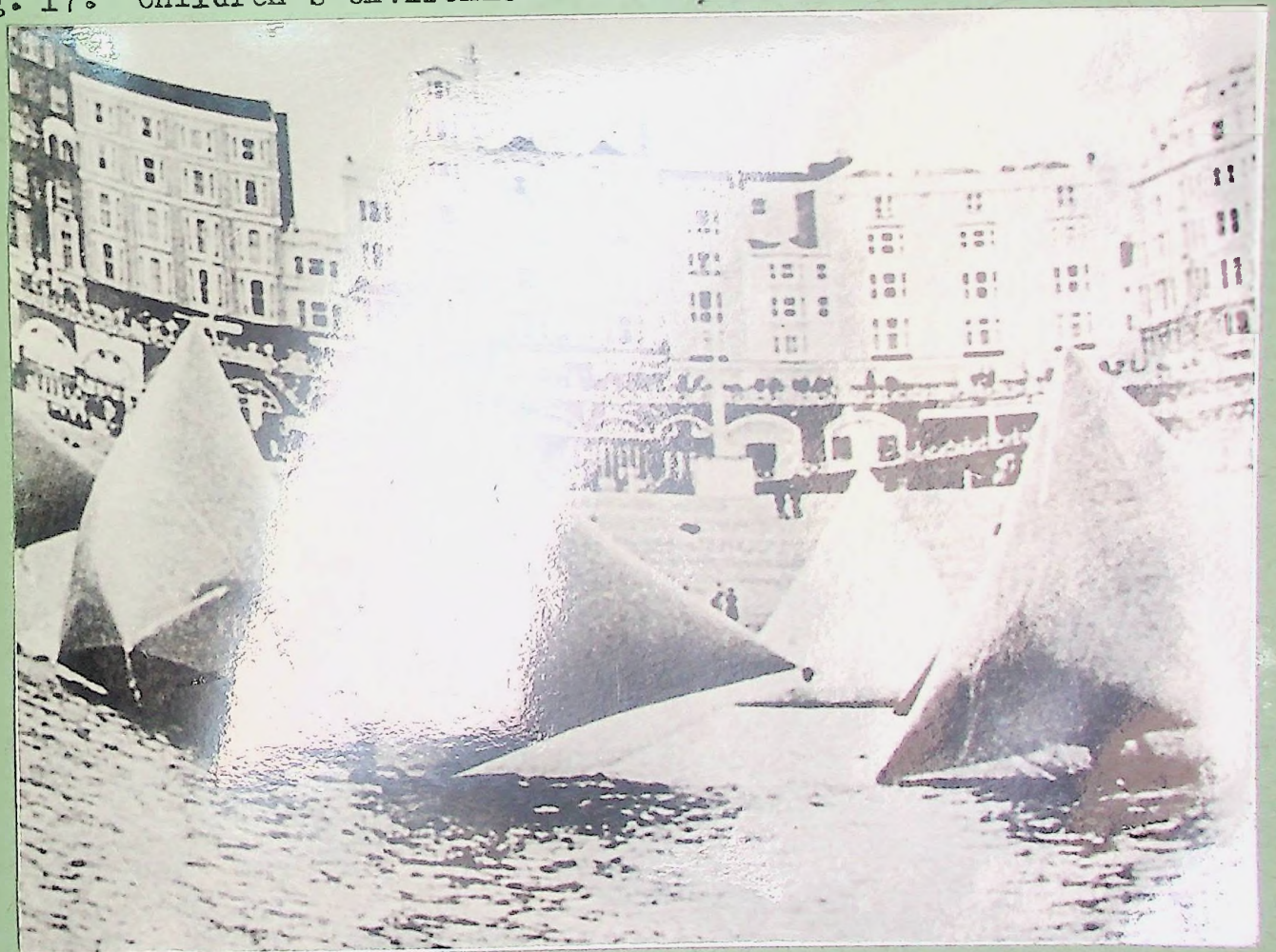
Fig. 25
Children's inflatable environment.



Fig. 26
Interior of Inflatable.



Fig. 17. Children's environment E.R.G., Holland.



g. 17. Inflatable on lake.

They discussed problems of mass culture and man's alienation in society today. Marcuse explained the consumer tendencies of our society and its effects on people's lives. In the same sense the argument could be directed towards consumer art. This is where the ideology of environments, film, mural art, etc., has a broader range in allowing people to take part in an experience of a performance and a dialogue is set up. There is a lot of work being done with people using inflatables, i.e. large inflatable polythene tunnels that ran right across a Dutch lake. These were made by the ERG Group and the lake constructions allowed people to walk across on the water surface.

One reason for man's dehumanisation is due to his lack of relationship with nature. Seyyed Hussein Nasr, Director of the Imperial Iranian Academy of Philosophy and Professor of Philosophy at Teheran University in his book Man and Nature, explores ideas about man's relationship to nature in Taoism, Hinduism, Buddhism, Christianity and Islam. In the east, man's relationship with nature is very close. Nature is all encompassing and larger than man. In the west it is the reverse; man controls nature through the development of technology and science. This main split in man's direction is due to his deep spiritual beliefs in both spheres. In the west science has not attempted to integrate the "sacred and spiritual value of nature". Hussein states that it must be revived and the sacred quality of nature given back to it again. He believes that in order to re-establish this relationship again, the history and philosophy of science must be re-instigated in relation to Christian theology and the traditional philosophy of nature which

Fig. 29 -
Tribal dress
symbolism of
primitive man

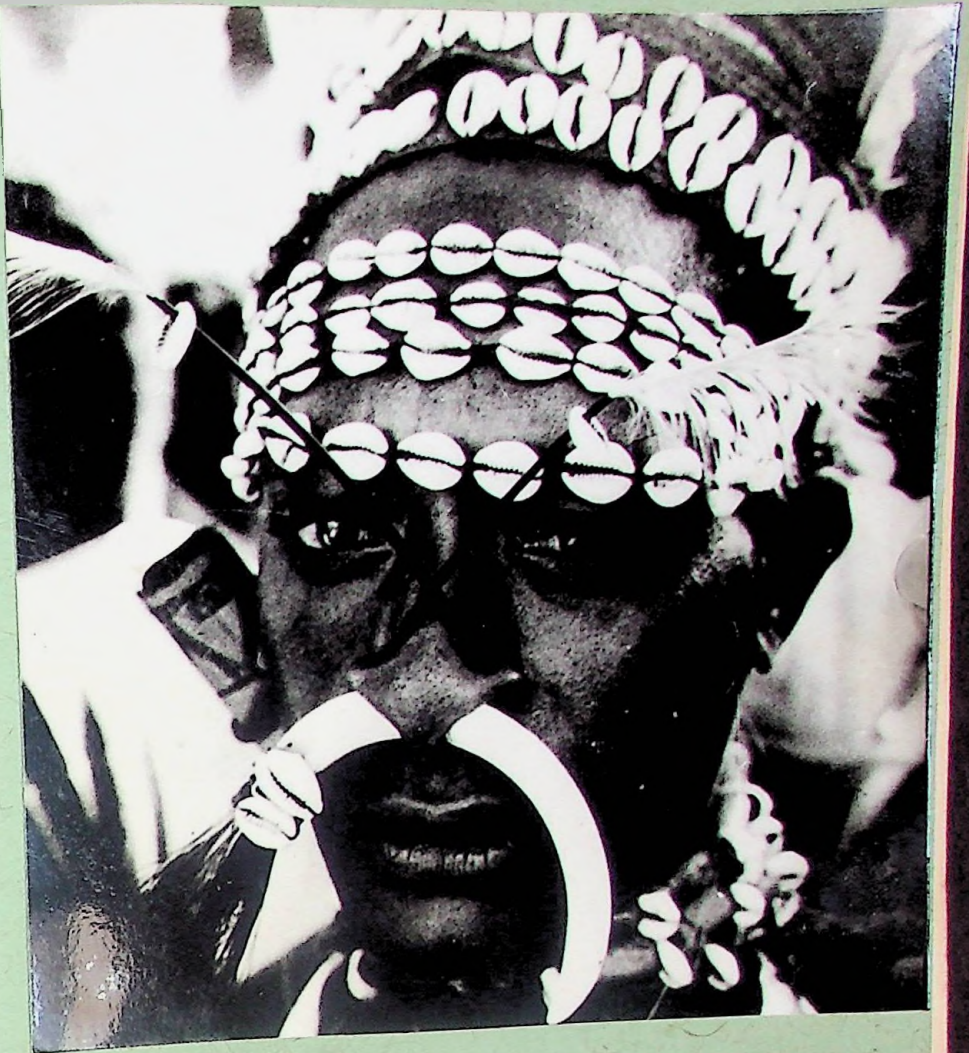


Fig. 30. -
Punk dress,
Symbolism of
modern man.



existed during most of European history. He believes that the Christian Doctrine itself should adapt an approach to the spiritual in nature. He sees this achieved with the aid of intellectual and historical causes of man's dilemma today. Hussein has tried to solve the question in his book. Nature has become a thing devoid of meaning, like a prostitute, to modern man. This is partly due to his approach to it on a purely biological level. Arguments against man's destructive tendency have often been dropped and taken as being sentimental rather than intellectual. There have been few theologians and philosophers who have taken a stand in case they would offend the scientific atmosphere of the day. Modern science reduces all quality to quantity and metaphysical to the material; man's scientific approach to his environment has solved the problem in a purely functional aspect. All awareness of the psychological and physiological needs of the human existed in the beliefs of the cultures of the Egyptians, Chinese, Greeks, North American Indians, tribes of Africa, Polynesians, Incas, early Christians, Vedic Seers of India, the Medieval Alchemists and the Mystics of Europe i.e. Jung, De Chardin.

Jung states "modern man does not understand how much his rationalism (which has destroyed his capacity for entertaining numerous symbols and ideas) has put him at the mercy of the psychic under-world. He has freed himself from superstition (or so he believes) but in the process he has lost his spiritual values to a positively dangerous degree. His moral and spiritual tradition has disintegrated and he is now paying the price for this break-up in a world wide disorientation and dissociation".

The impact of civilisation on primitive tribal cultures has broken down the fabric of their lives and the social organisation has disintegrated. This occurred in Japan in the Meiji Era (1868-1912) causing great conflict among the Japanese. Western tradition was so alien to Japanese culture and its relationship with nature, that adaptation to such a foreign culture took a long time for them to assimilate this into their way of life.

The scientific understanding of the West created a negative impact on Japanese culture. The Japanese approach being more intuitive than the western attitude which was more scientific and intellectual. In Japan there was a conscious search for an aesthetic of beauty in nature manifested in the tea ceremony with concepts of Shubui and Wabi. These concepts are not totally intellectual but are experienced intuitively in the Japanese tea ceremony. As science developed, in turn, our world became dehumanised, man felt himself isolated in the cosmos.

In this century the psychic elements of man's nature explored again in order for man to re-establish his roots. Many esoteric schools were involved in sub-conscious symbolism of magic e.g. Hermes, Isis, Elesius, Mithras, Rosicrucianism and Druidism. The poet W.B. Yeats was involved with the Rosicrucians and the Druidic schools, his poetry evokes a mysticism that recalls images of the past. The philosopher and educator Rudolf Steiner was also influenced by the Rosicrucians and his educational principles are based on the influence of fairy tales and magic. A contemporary movement began in London to research into man's relationship with nature and the impact of civilisation in the past e.g. research has been done on Stonehenge demonstrating the land art of pre-historic times and its astro-archaeology that related man to nature

and his position in the universe. To return to Jung on this point he discusses our contemporary position. He states "man is no longer involved in nature and has lost his emotional unconscious identity with natural phenomena. These have slowly lost their symbolic implications". The surface of our era seems to have lost all its superstitions and magic. However the inner world of people may not be freed from the instinctual self. Jung explored the unconscious through the dream world. He saw dreams as being a manifestation of man's psychic primal energy. The development of consciousness is explored by a philosopher called Jaynes who attempts to understand the instinctual mind and its development of his consciousness of the world around him. The contemporary philosopher R.D. Laing tries to explain this split between the primal mind and man's newly developed consciousness. He believes that schizophrenia is a result of man's inability to reconcile these two extremes in his nature. Our intellectual nature has created a new world of dominating nature. In our domination we are its victims for we have not even learned to control our own nature. Our present lives are dominated by reason that is man's newly acquired faculty. Jung is very aware of man's position today but he cannot see this being resolved by religion. "The Buddhist discards the world of unconscious fantasies as useless illusions. The Christian puts his church and his Bible between himself and his unconscious and the rational intellectual does not yet know that his consciousness is his total psyche".

The conscious/^{ness} could point a way towards man's real understanding of himself and nature. The disappearance of cosmology and man's involvement in the unconscious has created a rift between man's outer reality and his inner world. Perhaps man will learn to explore his instinctual self and his unconscious mind. By doing this he could understand himself and re-establish his relationship with nature. Technology can not be destroyed; it can only be humanised and a more balanced relationship created with nature and ecology. Man can also change his attitude to himself by exploring his psychic under-world and instinctual realm where he could find his real identity with his own nature.

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- | | | |
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54.	Brecht.	-	Willet (Methuen)

. contd.

MAN & NATURE

A Thesis

by Gabriel Murray: 1979