Thesis : Exploring the human figure

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Principles of teaching '78/'79

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I wish to thank both Mary Brady and Terry Gayer for their help in writing and developing this thesis.

INTRODUCTION

In this thesis I propose to discuss how different people have used aspects of the human being in their work

There are many different ways of looking at the human being. We can look at the human figure as a piece of nature, to be explored through drawing. We can look at the 'person', that is human beings and how investigation of the human necessities lead to the design of things we use. We can also look at the image of the human being, the artist and how he uses aspects of the human figure to communicate ideas.

In the first chapter we will look at three aspects of people and their art, and identify these three aspects. This chapter will lead into Chapter Two, where we will look at three artists, and how and why they did what they did. This chapter will take the form of three starter programmes for senior students, with illustrations and explanations. Chapter Three will be a practical chapter, describing some follow-up work to the foregoing programmes.

CHAPTER ONE

If we take the human being, or person, and look at it as a machine, we must for the time being, forget the needs of this machine, and how this machine uses images of itself to communicate ideas.

Let us look at one corner of the aforementioned triangle - the figure as a machine for study.

In biology class we learnt that the shape of a leaf was directly related to the functions of the leaf, the leaf was flat and green to aid photosynthesis and to get rid of carbon dioxide. When we study the human body as a machine, anything that we know about how it works, can help us understand the figure. Our study of the figure as a machine leads to understanding the needs of the figure as a human being. For the medical student, a study of the skeleton and internal organs, gives him a knowledge of the machine, so that he can learn how to mend and maintain this complex machine. We also need to know how the machine works, but we are more concerned with the outside appearance of this machine, that is - how it looks. By drawing this machine in detail, noting proportions, looking at the way the parts move, we begin to understand that there is another facet to the study of aspects of people in art. The study of the figure as a machine enables us to look at the human being as a consumer.

The human being needs a place to work, live and play in, windows to look out of, utensils for eating etc. Who decides on the design of these necessities? What information enables the designer to make these decisions? Two very important questions indeed - Society has produced a set of people who specialize in designing our living spaces, plus everything else we use. As with the medical student, who investigates how the 'machine' works, the designer must also make his investigations. For the designer to design and make an article which we need, he must follow a certain line of investigation. He must know what the article is supposed to do - that is its *function*, he must find the optimum size for the article, so that it will be easy and comfortable to use, he must find out what colour people would prefer this article to be. Therefore the needs of the human being are directly related to what is designed for human use.

On the third side of the triangle we have the figure as an image. When looking at aspects of people and art, this side of the triangle is very relevant. The figure as an image, is very potent.

The images which make up the whole spectrum of representations of the human body encompass a time span of

approximately fifty thousand years. We have for that long been at work, making our own image. It is hard to decide which is more remarkable, that man has the capacity, or that he has the desire to do so.

Perhaps both of these reasons are a part of the same thing, the drive of the human being to be human. In prehistoric examples of the human image none of the examples aspires to an individual likeness. In fact none represent the human body, as "it really is". We are not here introduced to Mrs. X or Mr. Y. These are not portraits. The figures, unmistakably endowed with the characteristics of our own bodies, are symbols (see illustrations). The figures embody the dimensions of prehistoric man's experience, rather than merely his appearance. The dimensions embodied in these figures are divine power, an ancestral presence, as creative and procreative essence.

In the course of history the 'figure as an image' has changed dramatically. What influenced the change? I think that man's *need* to record more and more about his lifestyle, certainly influenced the changes.

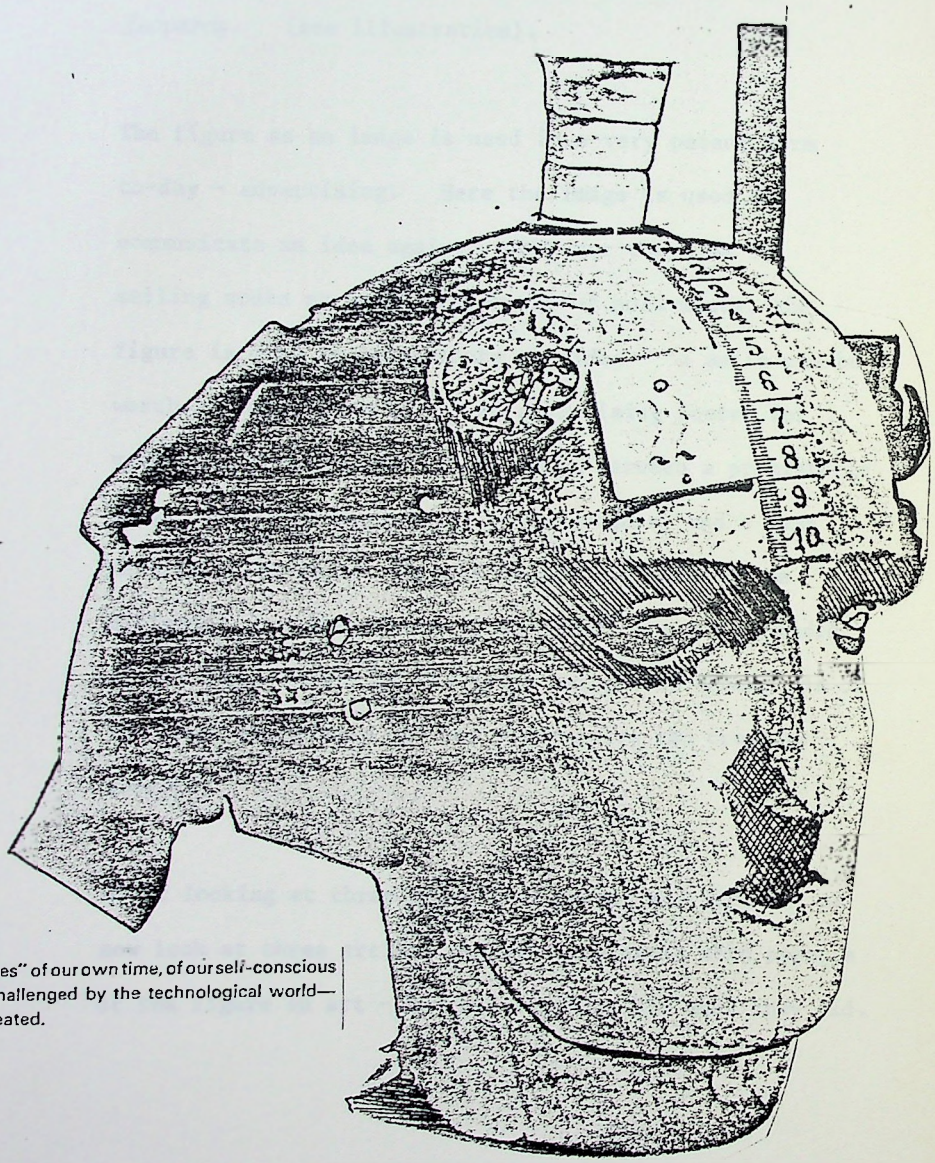
In the medieval and middle ages, man's human representations became more descriptive. The artists recorded

definite situations, particular conditions, and specific individuals. The artists informed us about a specific location or event, the time of year, and the social standing and age of the subject. In most cases we also know the names of the artists and when and where they lived (illustrate).

Looking at pictures from this period of time to the beginning of our own century we witness a pictorial record of man's discovery of the empirical world and, perhaps most importantly, that he has learnt to master that world. In the last few hundred years the eyes of all of us have been educated in this tradition. We are insatiably fascinated with the world of appearances, with the world "as it is". The same fascination produces the inquisitiveness of science.

Around the turn of this century, art which reveals man to his own understanding - took a different direction. The human image "disappears", as it were, it merges with its environment. (see illustrations). At the same time in the work of other artists, the human image reappears, but no longer as a particular person at a particular place or event.

'Modern art' and artists tend to make symbolic statements about the human condition in general. In doing so they



A Images of the "headaches" of our own time, of our self-conscious awareness, which is challenged by the technological world—which we ourselves created.

communicate the image of our dilemma: *that the time of acute self awareness of the human being as an individual is also the time when our sense* of identity is *most in jeopardy.* (see illustration).

The figure as an image is used in a very potent form to-day - advertising. Here the image is used to communicate an idea again. Whatever the idea is, selling vodka or paint, underwear of polo-mints, the figure is used to communicate the idea - 'a smile can be worth a thousand words' in an advertising poster for vodka. A comparison can be drawn between a prehistoric image, with its exaggerated sexual organs, and a sexy advert. of to-day. In both images the idea may be different, but the effect is the same - we are reminded of the significance of the human being- the dimensions of the human experience and its procreative and creative essence.

After looking at three aspects of people and art, let us now look at three artists and how they dealt with aspects of the figure in art - how and why they did what they did.

CHAPTER TWO

Three artists, and why they did what they did.

A series of three 'starter' programmes designed for senior pupils

Each programme contains a short introduction to the artist. We shall look at how the artist studied the figure, person or image of the human, and how this study influenced his work. Each programme will be followed up with projects. The project proposals follow in the third Chapter.

Le Corbusier - ergonomic planning

Section (1) Le Corbusier

Le Corbusier was born Charles Eduard Jeaneret on October 6, 1887, in La Chaux-de-Fonds, a small town in the mountainous Swiss Jura region, since the 18th Century the world's centre of precision watchmaking. Born into a Puritan Protestant environment, his life was marked by the harshness of these surroundings. His father was an engraver and jeweller of watchfaces, his mother a piano teacher.

Education

At the age of 13 years, Le Corbusier left primary school to learn his father's trade at the Ecole des Arts Decoratifs at La Chaux-de-Fonds. There, Charles L'Eplattenier, whom Corbusier greatly admired, taught him art history, drawing etc. It was L'Eplattenier who decided that le Corbusier should become an architect and gave him his first practice on local projects. From 1907 to 1911, Corbusier undertook a series of trips that played a decisive role in the education of this self taught architect.

During these years of travel through central Europe and the Mediterranean, he made three major architectural discoveries. The Charterhouse of Ema at Galluzzo in Tuscany, provided a contrast between vast, collective spaces and "individual living cells" that formed the basis for his conception of residential buildings. Through his study of Renaissance architecture he discovered classical proportion. Finally, popular architecture in the Mediterranean and Balkan peninsula gave him a repertory of geometric forms and also taught him the handling of light and use of landscape as an architectural background.

In 1922 Corbusier became associated with his cousin, Pierre Jeanneret, and together they opened a studio at 35 rue de Sèvres, which Le Corbusier kept open until his death. The association of the two cousins, however, lasted only until 1940.

The period from 1922 to 1940 was as remarkably rich in architecture as in city planning projects. In the Salon d'Automne of 1922, Le Corbusier exhibited two projects that expressed his idea of social environment and contained the germs of his work while on his earlier trips.

Until 1950 Le Corbusier confined his major works to France. From 1950 onwards he became active on a large scale outside France. He built the National Museum of Western Art in Tokyo (1960) and the Carpenter Visual Art Center at Harvard University (1964) and designed an exposition Pavillion in Zurich, that was constructed posthumously in 1964.

Le Corbusier died suddenly on August 27, 1965, while swimming at Cap Ferrat.

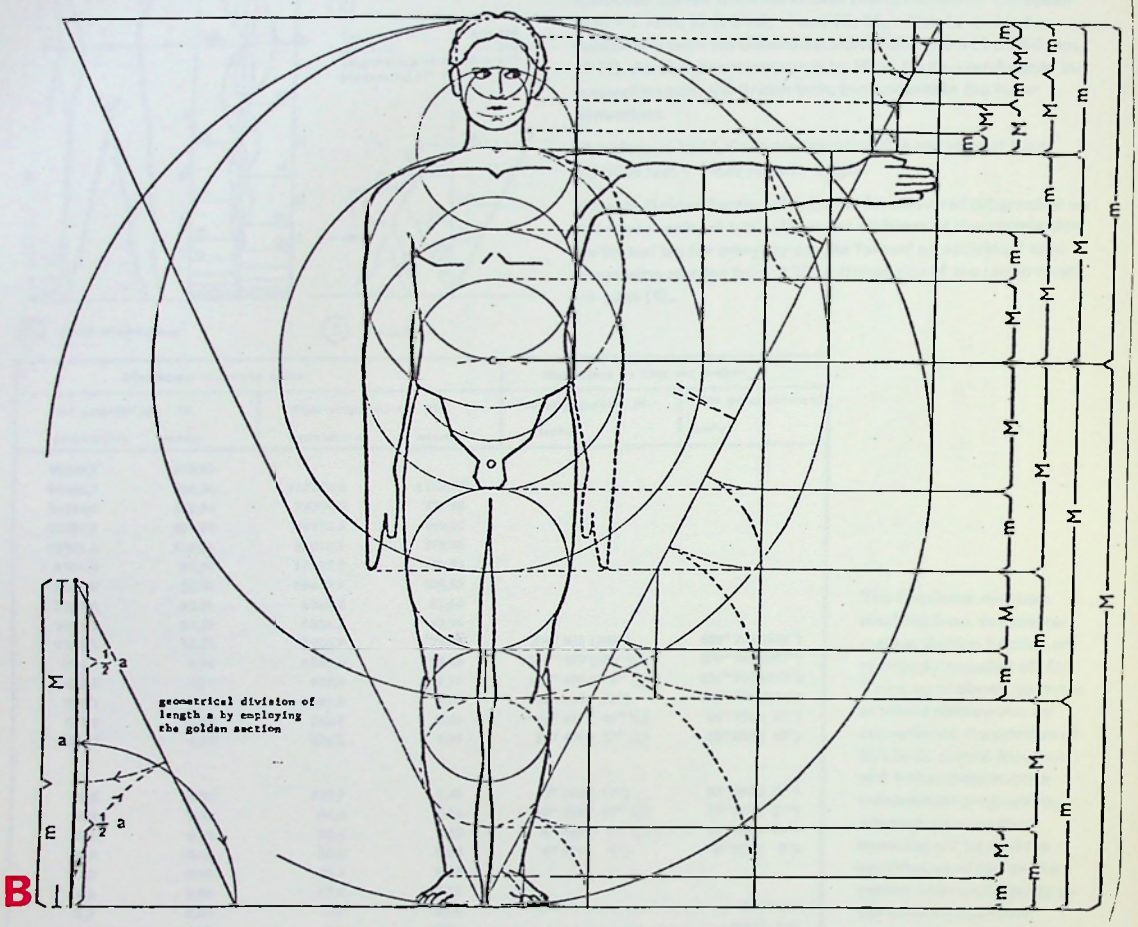
Throughout his life, Le Corbusier was interested in the human scale, and how this scale could play a part in his work. Let's look at man himself, and the human scale as he understood it.

The Human Scale

Articles are created by man for his own convenience, thus their measurements 'fit in' with the dimensions of his body. In the past his limbs provided the natural basis for all units of measure, and even today we have a better understanding of the size of something if we learn that it is so many men high, so many paces long, so many feet under or so many heads taller. These are 'understandings' which come naturally to us.

The metric system is bringing about profound changes, so we must endeavour to form an exact and vivid appreciation of this measure in the way that architects' clients do when measuring rooms on the plan of the building, and try to see the size in reality.

We can immediately get a proper conception of the size of any given thing if we see a man (real or imaginary) standing beside it. Very often professional and trade journals depict buildings and rooms without people. Such pictures often give a wrong impression of size and the true appearance may be very different - in many cases, much smaller than expected. One of the reasons why buildings are often not related to each other is that designers base their ideas on different arbitrary scales - instead of the



B

Relative proportions of man

The oldest known standard of human proportions (c. 3 000 B.C.) was discovered in one of the tomb-chambers in the pyramids of Memphis, so from that time onwards, and perhaps earlier, scientists and artists have been concerned with the study of human proportions. We know of the standards of the empire of the Pharaohs, of the Ptolomaic period, of the Greeks and Romans, and of Polyklet (all of which were accepted as norms for a considerable time); of the teachings of Alberti, Leonardo da Vinci, Michelangelo and others, the work of Dürer being particularly important.

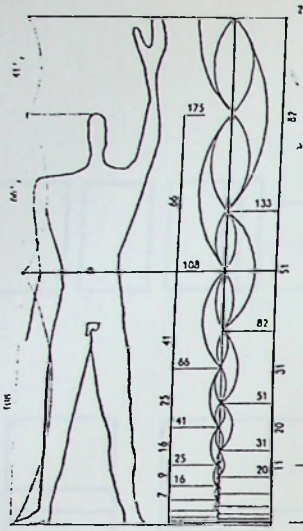
In these systems the human body is measured by the length of the head, face or foot – at a later date they were subdivided and related to each other so that they became standardized in everyday use. In modern times, feet and ells (yards) are accepted measurement.

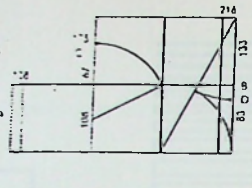
Dürer's findings met with general agreement. He began with the whole body-height and then determined subdivisions as follows:

1/2 h = upper half of body from groin;
1/4 h = length of leg from ankle to knee, and distance from chin to navel;
1/6 h = length of foot;
1/8 h = length from crown of head to chin, and distance between nipples;
1/10 h = height and width of face (including ears), length of hand to wrist;
1/12 h = width of face at lower end of nose.

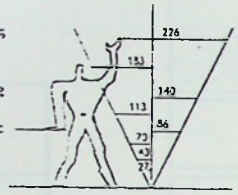
These subdivisions are taken to 1/40 h.

During the last century Zeising in particular has helped to clarify the basis of the 'golden section' through his research into the comparative dimensions of man, but his work did not get adequate appreciation until supported by Moessel after intensive examination. Corbusier used the golden section as 'Le Modulor' for all his projects after 1945, his measurements being: height of man = 1.829 m, height to navel = 1.130 m, etc.





The unit A = 108
Doubling B = 216
Lengthening of A = C = 175
Shortening of B = D = 83



① Human proportions ② ③ The modulor

Starting from the divisibility of the human body in accordance with the Golden Section, → p. 14, the French architect le Corbusier developed his science of proportion applied to buildings. He marks out divisions of the human body which form a progression conforming to the Golden Section: foot, solar plexus, head, fingers of the raised hand, → (1). Originally Corbusier started from the known average height of European Man = 1.75 m (5 ft 9 in), → pp. 15, 16, which he divided in conformity with the Golden Section: 1082-668-414-5-254 mm, → (1). As 254 mm corresponds to 10 in, he thus established the connection with the British inch, but not within the larger dimensions.

Therefore in 1947, Corbusier reversed this and started from 6 British feet = 1·829 m body height.

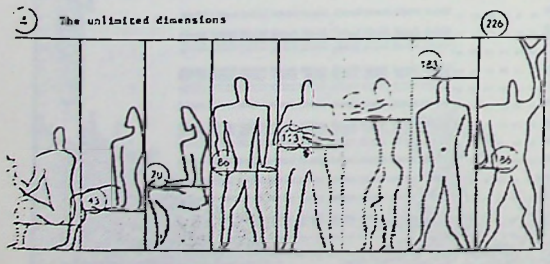
Through Golden Section division he formed a red progression up and downwards, → table (4); as the divisions of this progression are far too big for everyday use, he formed an additional blue progression starting from 2·26 m (finger tips of the raised hand), → table (4).

Dimensions in metric units				Dimensions in feet and inches	
Red progression: Ro		Blue progression: Bl		Red progression: RO	Blue progression: BL
centimetres	metres	centimetres	metres	inches	inches
95280,7	952,80				
58886,7	588,86	117773,5	1177,73		
36394,0	363,94	72738,0	727,88		
22492,7	224,92	44983,5	449,85		
13901,3	139,01	27802,5	278,02		
8591,4	85,91	17182,7	171,83		
5309,8	53,10	10619,5	106,19		
3281,6	32,81	6563,3	65,63		
2028,2	20,28	4056,3	40,56		
1253,5	12,53	2506,7	25,07	394" 962 (395")	609" 931 (610")
774,7	7,74	1549,4	15,49	188" 479 (188" ½)	376" 966 (377")
478,8	4,79	957,6	9,57	116" 491 (116" ½)	232" 984 (233")
295,9	2,96	591,8	5,92	72" 000 (72")	143" 994 (144")
182,9	1,83	365,8	3,66	44" 497 (44" ½)	88" 993 (89")
113,0	1,13	226,0	2,26	27" 499 (27" ½)	55" 000 (55")
69,8	0,70	139,7	1,40	16" 998 (17")	33" 992 (34")
43,2	0,43	86,3	0,86	10" 503 (10" ½)	21" 007 (21")
26,7	0,26	53,4	0,53	6" 495 (6" ½)	12" 983 (13")
16,5	0,16	33,0	0,33	4" 011 (4")	8" 023 (8")
10,2	0,10	20,4	0,20		
6,3	0,06	12,6	0,12		
3,9	0,04	7,8	0,08	1 inch	2,539 cm
2,4	0,02	4,8	0,04	1 foot	30,48 cm
1,5	0,01	3,0	0,03		
0,9		1,8	0,01		
0,6		1,1			

Explanation of the dimensions and working of Le Corbusier's modulor

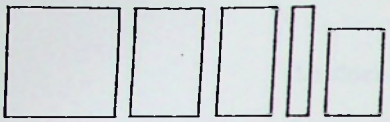
The fractional numbers resulting from the mathematical Golden Section are rigorously rounded off (to 7 mm up or down) to arrive at whole centimetres for convenience. Conversion of this basic system into feet and inches gives another independent progression. Through this constant rounding off into whole centimetres or inches the system loses workability as the building members outside the progression do not fit, as neither:

2 x 6 = 13; 2 x 16 = 33
2 x 27 = 53 nor 13 + 8 = 20



④ The unlimited dimensions

In standardization, exactly fitting dimensions are essential especially for serial production and prefabrication. Though Corbusier started from body height = 6 ft instead of the normal height of 1.75 m, it is evident that the resulting main proportional dimensions fit the octameter system rather well (total height of 2 260 mm, in the octameter system 2 250 mm). If Corbusier had proceeded more carefully in his efforts to work out rules of proportion based on the Golden Section he would have stumbled on a synthesis of the octameter and the decimal system. The latter can be connected through the Golden Section in a proportional graduation.



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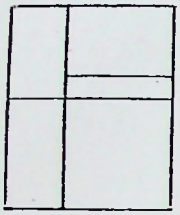

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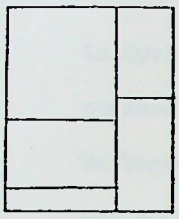

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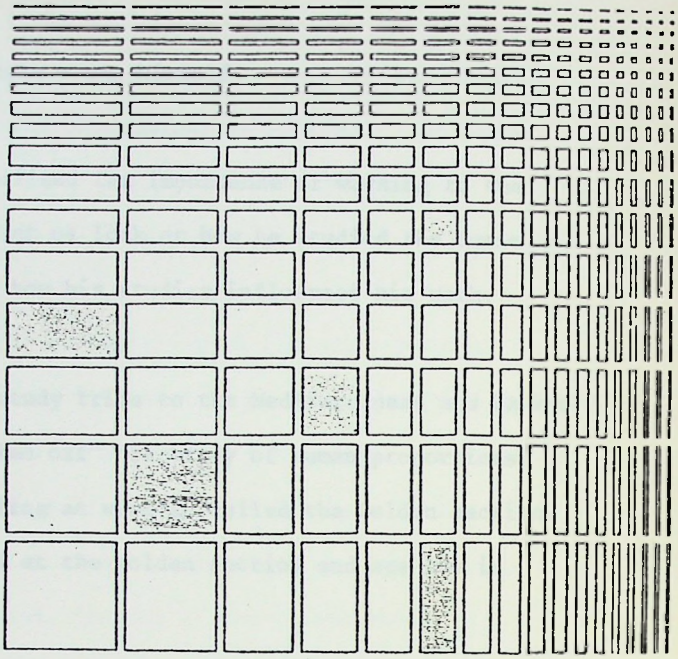

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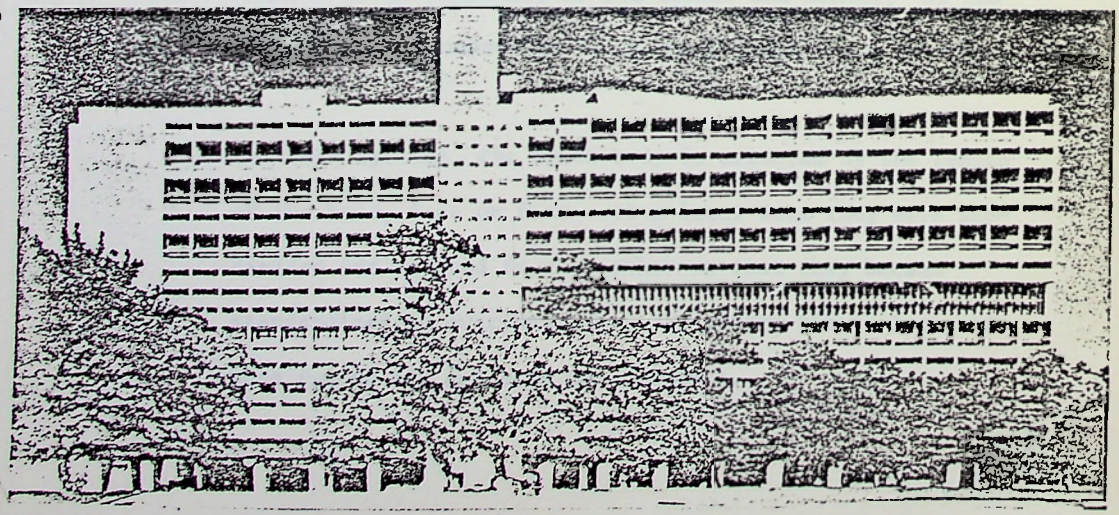
The grid, 8, is based on a set of measurements from the Modulor. Different panels taken from it, 5, are easily fitted together, 6, 7. Also, any large panel can easily be divided into a number of smaller ones. This is due to the fact that in a Fibonacci series each number is the sum of preceding numbers. Can you think where this might be particularly useful?

The building which is shown in photograph 9 was designed by Le Corbusier with the help of the Modulor. In the drawing of a detail of the building, 4, the architect has taken all the dimensions from either series A or B of the Modulor.

In our age of technology, when many parts of a building are mass-produced, often in different factories, such a system of measuring is especially important, as the different parts can be made to fit quite easily. But as well as enabling us to reap the full benefit of mass-production it will also help us to produce things which satisfy the requirements of our bodies and minds. The great quality of the Modulor is that it grapples with the special problems of our age.

C 9



only correct scale - man himself.

Le Corbusier realised the importance of working to the human scale. Let us look at how he studied the human proportions and how his studies influenced his work.

Le Corbusier's study trips to the Mediterranean and Balkan peninsula "sparked off" his study of human proportions. He began by looking at what is called the Golden section. Let's look first at the golden section and see how it was devised.

Relative Proportions of Man

The oldest known standard of human proportions (c.3000 BC) was discovered in one of the tomb chambers in the Pyramids of Memphis, so from that time onwards, and perhaps earlier, scientists and artists have been concerned with the study of human proportions. We know of the standards of the Empire of the Pharaohs, of the Greeks and Romans; of the teachings of Leonardo da Vinci, Michelangelo and others.

In these systems, the human body is measured by the length of the head, face or foot - at a later date they were sub-divided and related to each other so that they became standardized in everyday use. In modern times, feet and ells (yards are accepted measurement).

Albrecht Durer, the German painter set out his findings on human scale and proportions as follows. He began with the whole body - height and then determined subdivisions. (see illustration).

Starting from the divisibility of the human body in accordance with the illustration Le Corbusier developed his science of proportion applied to buildings. Le Corbusier marks out divisions of the human body which form a progression, conforming to the golden section: foot, solar plexus, head, fingers of the raised hand. Originally, Le Corbusier started from the known average height of European Man = 1.75 metres (5.9 feet). Using this 'average height' Le Corbusier developed his modular system, where the measurements of the average man were the basis for his designs. As the architect designs for human needs, he *must* take into account the spatial requirements of the human.

Application of Corbusier's work to the

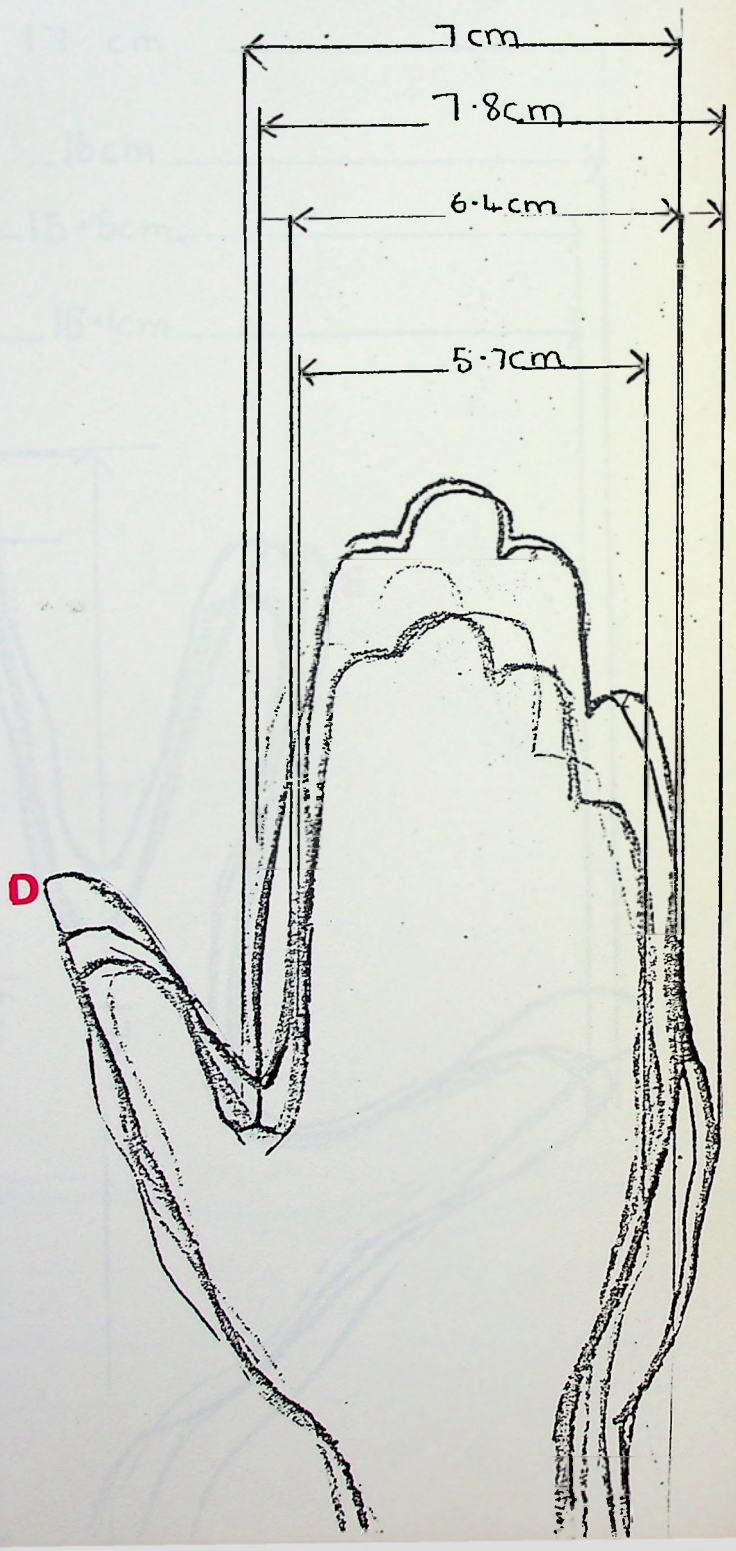
study of Ergonomics

in the classroom

How Corbusier's methods can be applied to the study of ergonomics in the classroom

Ten-year old children - study of varying hand measurements within a group. Basic study of design problem for the design of any hand held or hand operated device for varying hand sizes. Simple experience in 'ergonomics' and in collecting, collating and presenting information, which is a basic factor in decision making and the design process.

See three following illustrations DEF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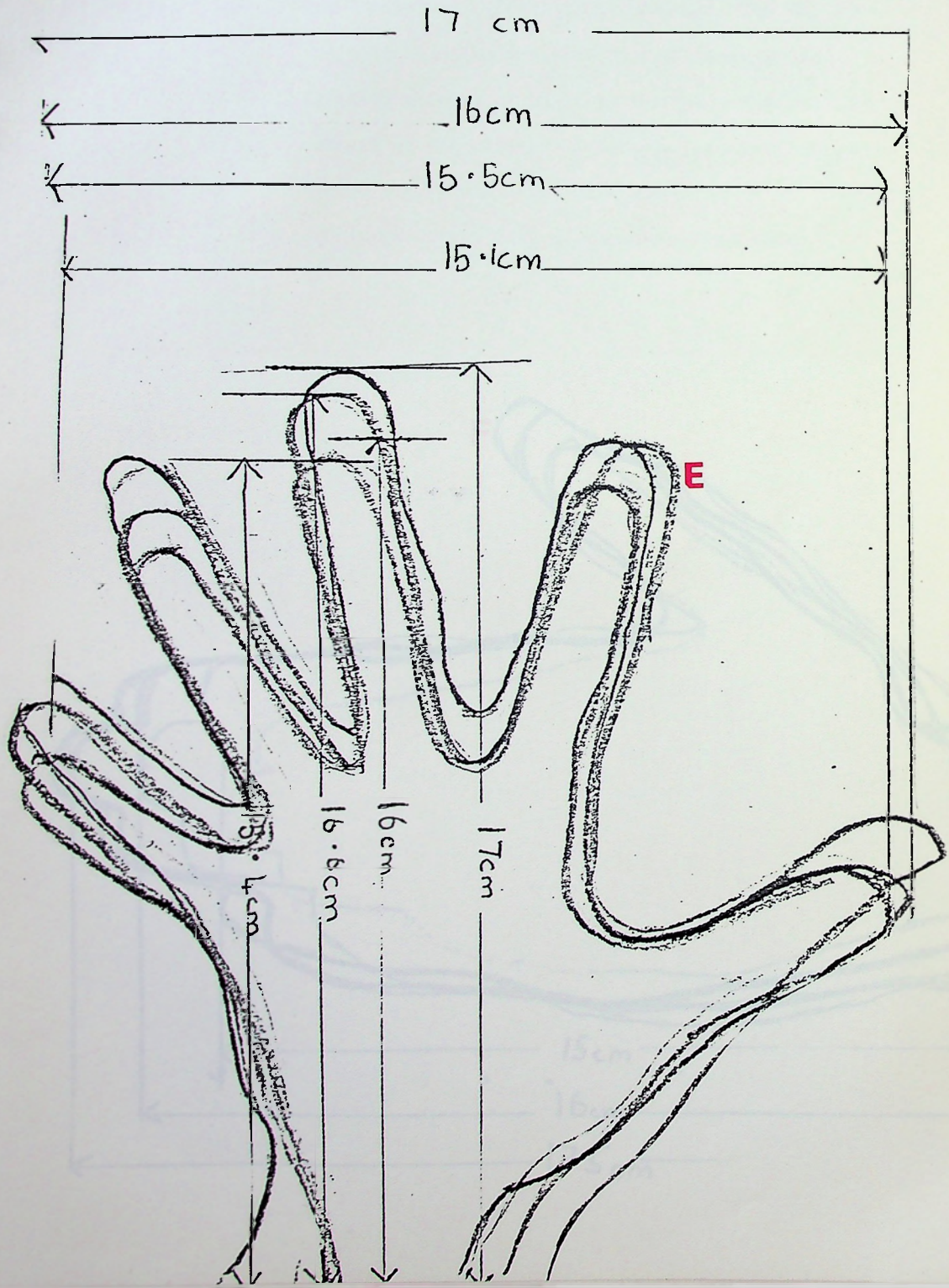
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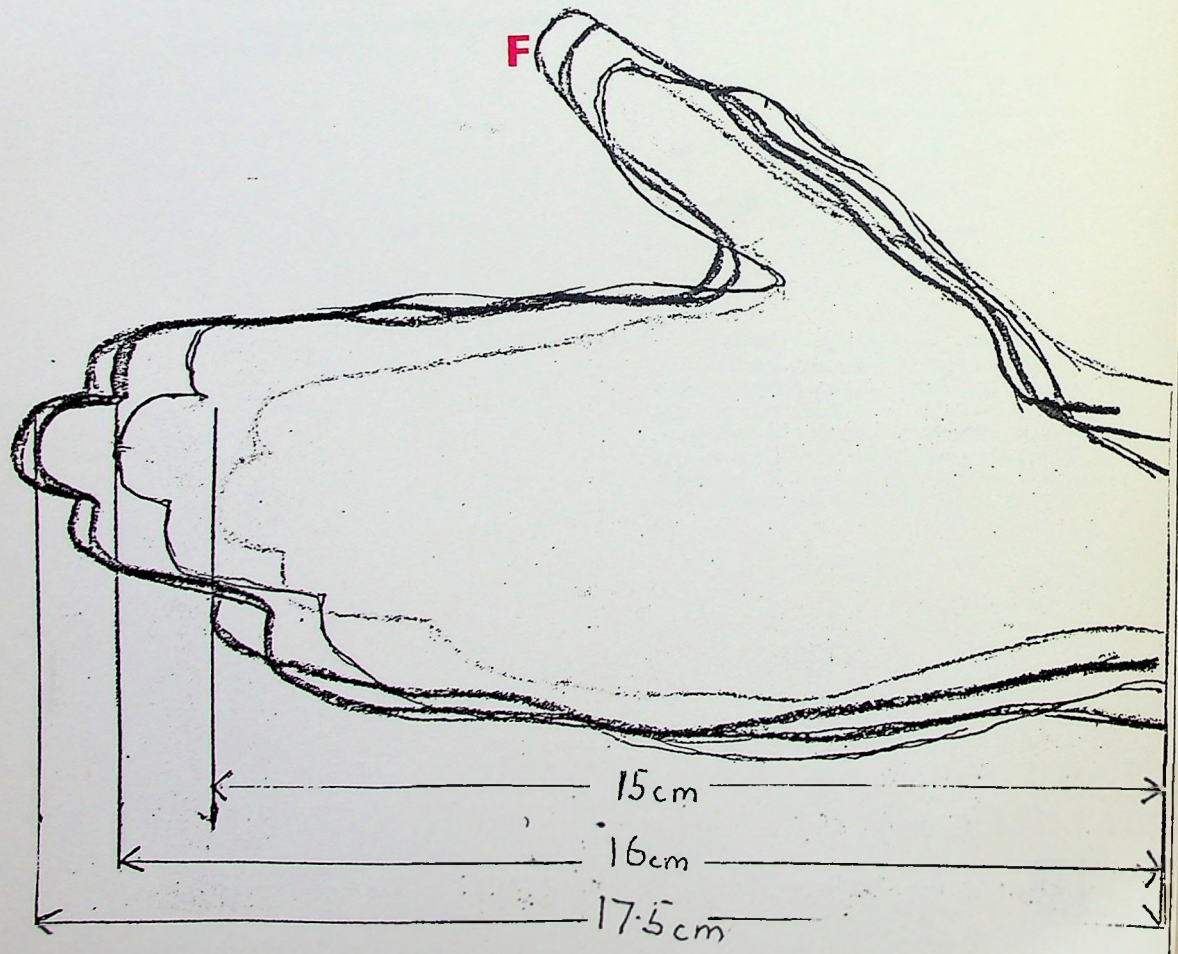
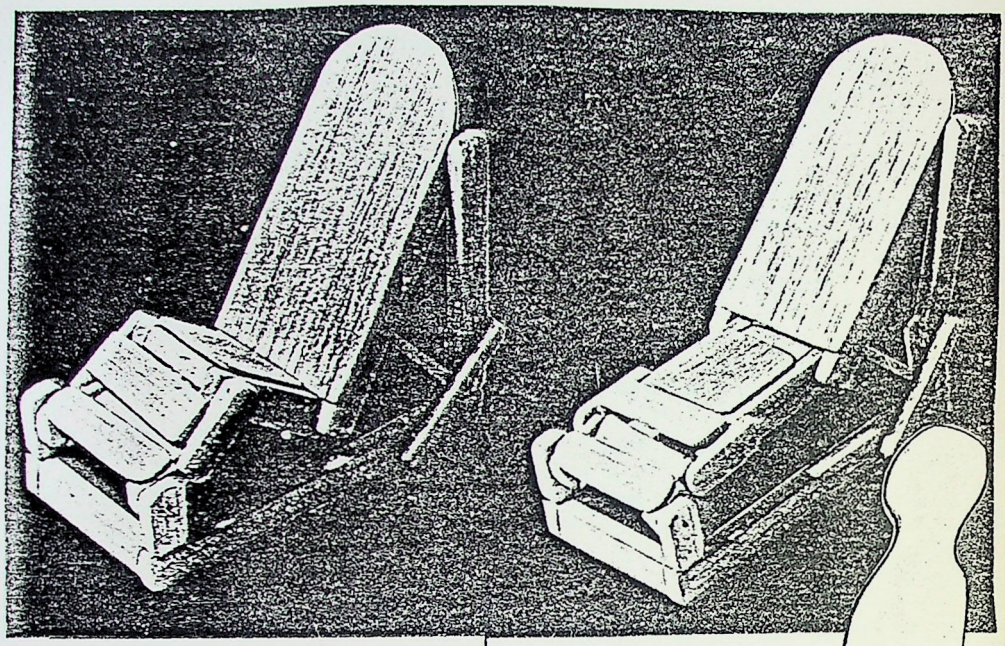
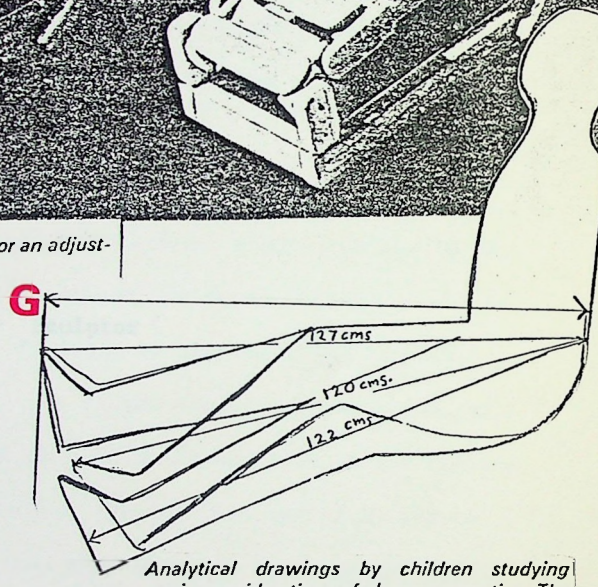

F
15cm
16cm
17·5cm

Analytical drawings by children studying ergonomic considerations of classroom seating. The project included studying problems of mass seating and devising methods of studying the varying dimensions of members of the class. A movable card template of a seated figure was made and drawn round in all sitting positions with actual measurements then added.

See illustration.G



Teenage pupil's prototype model for an adjustable seating device



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Henry Moore - Sculptor

Henry Moore - Sculptor

"Henry Moore. born July 30, 1898. Castleford, Yorkshire. Sculptor whose use of new and original means to continue the tradition of humanist sculpture into the 20th Century won him an international reputation. His artistic concerns have been respecting the organic nature of his materials, the sculpting of spaces as well as solid masses, and the presentation of intense psychological content."

Born the son of a coal miner, Moore studied at the Leeds School of Art 1919-22, and at the Royal College of Art in London (1922-24). In 1929, he married Trina Radetzky, a painting student. He taught sculpture, part-time, at the Royal College of Art (1925-32) and then at the Chelsea School of Art (1932-39). During this period he showed his work in siz one-man show and many small group exhibitions and by 1939 he was already known as a sculptur to English society.

He had a retrospective exhibition at the Museum of Modern Art in New York in 1946, and in 1948 he was awarded the international sculpture prize at the Venice Biennale. Among his major commissions are the sculptures for the

UNESCO headquarters in Paris (1957-48), for the Lincoln Centre in New York City (1963-65) and for a memorial to the world's first self-sustaining nuclear reactor at the University of Chicago (1964-66).

Looking at Henry Moore's work

The Figure in Sculpture

If we look at Henry Moore's sculptures we find that they evoke many associations, parts of the human body, parts of animals, landscape, natural objects. Let's look at the 'human' aspects of Moore's work because I feel, it is the aspect which makes the most impact - or the aspect that we most quickly associate with Moore.

The living human form provided a basis for study for Moore. In his early years at Art College he spent much of his time drawing and drawing the human form. He studied anatomy intensively. From this information he learnt how exactly the human form is made. Why then are his sculptures of human forms so 'abstract'? we ask. What made him do things the way he did?

Moore found that the qualities he loved most, that were inherent in the living human form, were the qualities that manifested themselves in his sculptures. Moore found that parts of the body could resemble landscape. The idea that a figure could be a range of mountains was a conscious factor at least as far back as 1930, when Moore wrote of "mountains as a sculptural ideal", and carved the

Reclining Woman in Green Hornton stone (illustration).

In the second half of the 1930's he was carving figures penetrated with holes and writing of "the mysterious fascination of caves in hillsides and cliffs". Moore, therefore integrated landscape into his sculptural forms, but what qualities, found in the living human form, did he use in his work? Let's take a close look at one of his major works - *Reclining Figure (1956) (see illustration)

The sculpture is recognisably human in origin, that is, we know it is "supposed to be" a figure reclining, yet, if we were to meet this sculpture walking down town, as a living human figure, it would probably be unrecognisable as human. Apart from the fact that the Reclining Figure has arms, legs etc. - we know it represents a human reclining figure because of the posture.

Here, Moore has exaggerated the breasts and thighs of the figure which is female, do we not (especially the male) notice these 'points' first, if looking at a female? This is probably why the figure here is obviously human, and why we take an interest in it.

The figure here reclines, but is also fairly alert, this quality is seen from the 'leaning on one elbow'. The

* Page 16 H.M. Sculptures and Landscapes

figure is at rest, but is still taking an interest in what is going on. The legs are abstracted, but still show that they belong to a human figure, by their positions. One leg is drawn up to cover the reproductive organs, or perhaps just to steady the body?

Let us look at another of Moore's works to see how qualities found in the living form have influenced his sculptural work.

Family Group 1948-49. Bronze. H. 60". Museum of Modern Art, New York.

This work of Moore's, for me, evokes thoughts of many human qualities. Let us look firstly at the group from an anatomical point of view - we see three figures, two large and solid, seated, with a third figure partly

enveloped by the arms of the two larger figures. We recognise arms, legs, etc. not because they are anatomically the 'same as ours', but because they are doing things that our arms and legs do.

From another point of view the group is recognisable as a family because of the attitudes expressed in the movement of the figures. The male places his hand on the woman's shoulder, while she holds the wriggling baby. The woman is apparently 'in charge', but the man is helping to hold the baby, while his hand on her shoulder gives her support.

Even if the three figures were not differentiated by such details as length of hair, and body shape - we would know which is male or female from the human qualities inherent in their movements.

Henry Moore has used his sculptural work to communicate his ideas of people in three-dimensional images.

The Image

In 'the Image' Kenneth Boulding outlined a provocative list of dimensions that, in his view, explain how we construct an image of ourselves. The list, summarized here, suggests some of the contexts in which we might view our relationships with other things, events and people.

1. Space : Think of your relative location in a room, neighborhood, city, state, nation, on the planet Earth, in the Universe. Consider your relative position next to the Earth, under the Sky.

2. Time : Do you think of time as linear (chronological), as do most people in Western culture? In some non-Western cultures, time is circular (seasonal) and is endlessly repeated. In all cultures, sequential times of life - birth, childhood, maturity, old age, death, life after death, rebirth - are contexts for understanding events.

3. Value : Consider the relative worth to you of material

things (good health, life, religion). Also think about the relative value you normally assign to objectivity or subjectivity, to pleasure or to pain.

Considering the three aspects of how we can construct an image of ourselves is an important step in the process of learning how to use the image of ourselves to communicate an idea.

Lesson 1

Consider the human body as a landscape. Plan where the raised areas are. Plan where the lowland areas are.

Communicate this idea :

A. in two-dimensional form - through drawing

B. in three-dimensional form - making a model

AIM: to look at the human body in a new context, and develop ideas in different ways, through different media.

Lesson 2

The human body as an image.

Stage one : drawing ourselves.

photographing ourselves

Collect information and use specific data to communicate ideas of, for example, emotion

Stage two :

SECTION III

The self portrait

Everyone, at some stage or other, executes a self portrait. The artist may product a canvas, the sculptor a 'head in bronze', or the accountant a 'doodle' on a pad of paper while he is on the 'phone.

What motivates anyone to 'do' a self portrait? We may be motivated by any one of a number of things. We may wish to preserve our self-image for posterity, we may wish to express the way we feel, or it may be a form of graffiti - to say - 'I was here'.

Let us look at the self portraits of an artist, and decide what 'reason' if any, he had for painting his self portrait and what he achieved.

Let's take Vincent Van Gogh.

Vincent Van Gogh - the influence of his life on his self-portraits or self-image.

Vincent Van Gogh was born on March 30th 1853 at Groot-Zundert in Holland. His birthplace lay in the midst of flat country beneath a low sky intersected with canals. The life of its inhabitants was narrow and provincial, for they were good bourgeois whose existence was easy and free from troubles. Vincent grew up in a country house, in the company of a number of younger brothers and sisters. His father was a clergyman, his mother, with whom he had a great inward affinity, was named Anna-Cornelius Carbentus.

When he was twelve years old, he was sent to boarding school at Zavenbergen. At sixteen he returned to his parents house. His sister describes at the time how he used to escape from the tedious life of the sleepy village and take refuge in the countryside to avoid the eyes of his father's inquisitive parishioners. "Broad rather than tall, his back slightly bent owing to the bad habit of letting his head hand forward, his reddish fair hair cut short beneath a straw hat, which over-shadowed an unusual face: not at all the face of a boy."

Even then his parents had a feeling that there was something unusual about their son and they felt a presentiment at the trouble he would later be to them.

At the age of 17 Vincent was sent to the Hague, where he obtained a post as salesman, in the branch there of the Paris firm of Goupil. The works sold there were sentimental genre paintings. Vincent was clever at packing and unpacking books and paintings, and worked steadily. At the age of 20 he was sent to the London branch of Goupil. There he employed his free week-ends in drawing, modestly, for his own amusement. In London he had plenty of opportunity for studying art, for seeing all kinds of work, for developing his taste.

At this time his artistic perceptions were still unawakened, he had, in his own words, "no feeling for class or quality", his one preoccupation was to find satisfaction in the contents of the pictures he looked at.

The inward peace of mind in which he then lived was broken when he fell in love with the daughter of his landlady, a widow named Loyer. The girl led him on and then finally told him that she was already engaged. The neurasthenic condition into which this adventure plunged him was not without subsequent effects on his relations with the Goupil Galleries and he was dismissed.

Influenced by the humanitarian ideas in vogue, he abandoned

the art business and returned to Holland with the idea of embracing a religious career. But he did not persevere in his studies for the ministry, and became a missionary in the coal-mining district of Barinwagre in Belgium, where he shared the poverty and hardships of the miners. He did not begin to become an artist until he was living in great poverty, after his dismissal from the mission in 1880, and from then until 1886 he lived variously at Brussels, Etten, The Hague, Drenthe, Neunen and Antwerp, which appear to have contributed little to his development.

In 1886 he joined his brother Theo in Paris and immediately came into contact with the works of the Impressionists. He met Toulouse-Lautrec, Pissarro, Degas, Seurat and Gaugin, and in 1888 went to Arles, where he was later joined by Gaugin. In December 1888 he became insane, and from then until his death suffered intermittent attacks of mental trouble. During the intervals between these attacks he continued to paint, both in the asylums of Arles, at Ste. Remy, and after his removal to Anvers, where in July 1890, he shot himself.

Van Gogh left a vast volume of work, the largest amount of which is in a special Van Gogh Museum in Amsterdam, and in the Kroller-Muller Museum at Otterloo in Holland.

Self-portraits

Van Gogh was a deep, sensitive man, and he remained so even after various tribulations. In his own words he "had not become a bourgeois, nor did I become a painter. Something 'sentimental' in the widest and loftiest sense of the word is the essential element of my art." If we wish to analyse his work, we must begin with these values of feeling and expression. He was a 'lover' who penetrated from the surface to the essence, the totality of things. He did not love sunshine - he loved the sun, and it was the latter he wanted to paint not the former. When he wrote "how beautiful is yellow" this was not merely the sensual reaction of a painter, but the confession of a man for whom yellow was the colour of the sun, a symbol of warmth and light. Yellow aroused ecstasy first as an idea in the man, then as a colour in the artist.

In his portraits, especially in his self-portraits, these values of feeling and expression are to be found in abundance. He himself confessed that he would have preferred above all things to pain portraits of saints, but that he "was afraid" of his emotions. He says that in this portrait (see illustration) he wanted to express

great peace, and in another great loneliness and sorrow (see illustration below). Certainly looking at these two self-portraits we can see what he meant to express. The use of colour, perhaps indicates most clearly what emotion is expressed.

Certainly the different experiences in Van Gogh's life influenced his self-portraits. His yearnings towards a religious life manifested themselves in his wish "to paint saints". His love of colour and search for peace was manifested in other self-portraits. (see illustrations).

CHAPTER III Design for people.

This chapter is a practical chapter, describing some follow-up work to the foregoing programmes.

The projects outlined are intended for use in the senior class - from fourth year to sixth year post-primary.

SECTION I. Studying the figure as a moving machine.

Studying the figure as a moving machine.

Project One : The design process and human measurement.

What? Dress design as a moving three-dimensional structure.

Aim : to experience the problem of mass design for different sizes of people, and how we have to arrive at 'compromise' measurements to accommodate varying human sizes.

The analysis and collection of data is a critical aspect.

What to do? Problem : to design a 'garment' to fit all group members which will allow certain physical movements to be made without the garment splitting.

The project will illustrate the idea that dress design is not just about 'fashion and style' but is also concerned with principles of construction, and is potentially part of three-dimensional design study.

Studying the figure as a moving machine.

Project Two : The design process and human measurement.

What? Re-designing hand grips to replace broken handles on tools and domestic utensils in the school.

Aim : To experience a realistic design problem. To experience inventive design methodology being employed to collect information easily and efficiently.

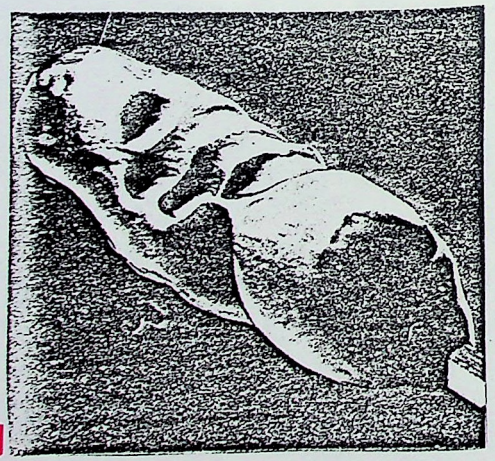
What to do?

Initial stage of project is to determine the most efficient size and form of grip to fit widely-varying hand sizes.

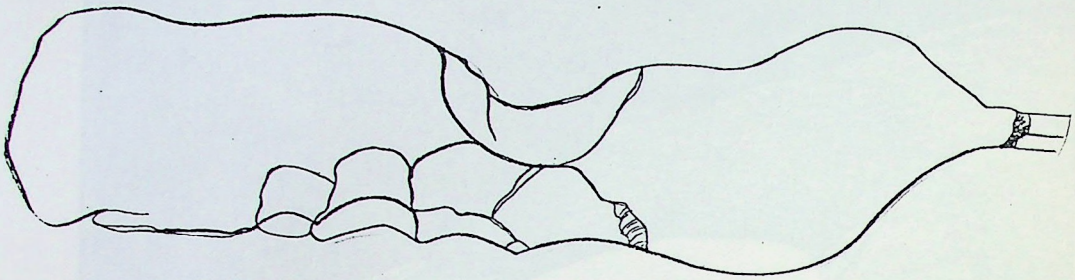
Stages : (see accompanying illustrations) HIJ

1. Plasticine moulded to fit the hand efficiently.
2. Drawing of moulded form
3. Plasticine on saucepan
4. Screwdriver handle being moulded.

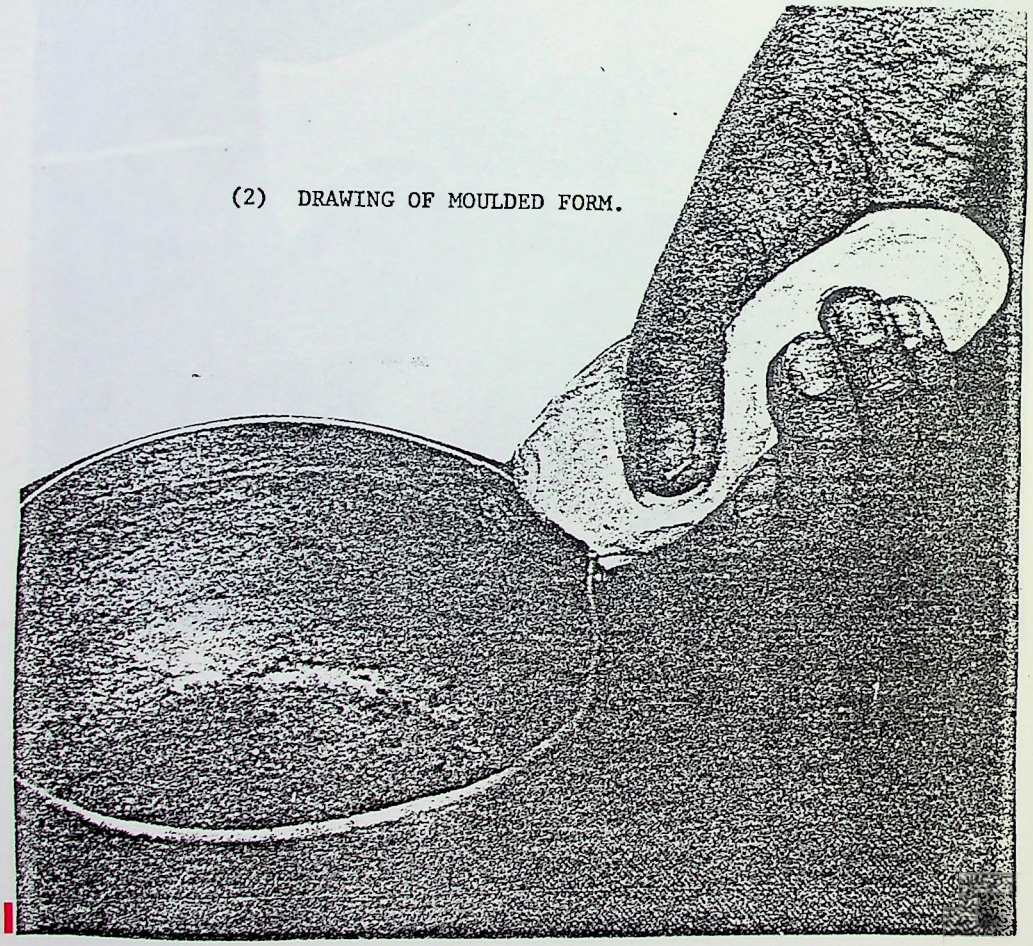
The soft forms are 'gripped' by selected age/size range of users to modify form for collective use.



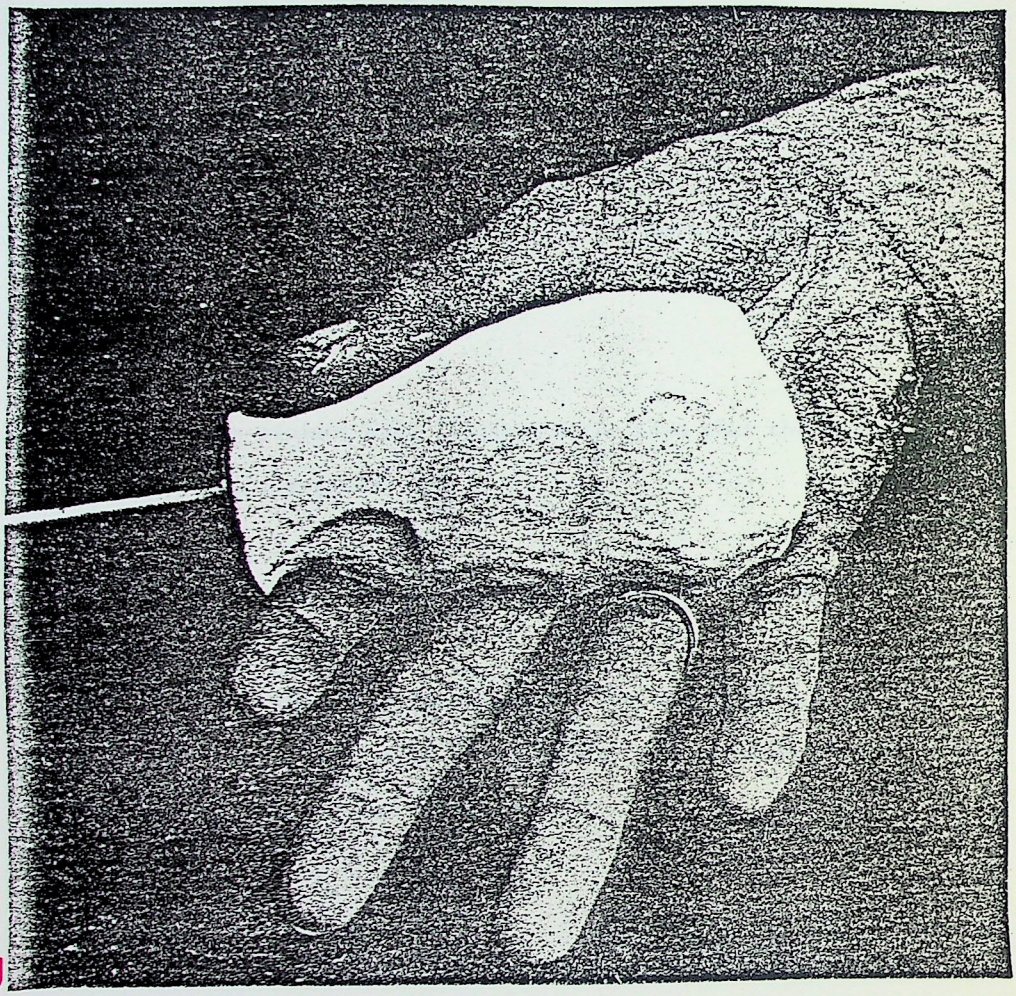
(1) PLASTICINE MOULDED TO FIT THE HAND EFFICIENTLY.



(2) DRAWING OF MOULDED FORM.



(3) PLASTICINE ON SAUCEPAN



(4) SCREWDRIVER HANDLE BEING MOULDED.

Stage 5 : Making the handle - from

Wood

Polystyrene

Clay

Injection-moulding

The project will illustrate the idea that the design process relies upon :

(A) The collection and collation of information.

(B) The importance of the dimensions of the 'user' in the design of hand-held objects and utensils.

SECTION II. Using images of people to communicate ideas

Using images of people to communicate ideas.

Project One : Designing different 'masks' to convey emotions.

Aim : To develop use of research. To be able to convey an 'idea' through an image.

What to do?

Develop a 'mask' in a three-dimensional form.

Materials used may be : papier mache, plaster, plastic, wood.

This project will stimulate the students to study facial expressions, and develop psycho-motor skills when they actually 'make' the mask.

Using images of people to communicate ideas.

Project Two : Design a set of 'symbols' to be used at an international 'sports' meeting.

Aim : To develop awareness of symbolism in the environment.

To show how 'symbols' of people can communicate an idea.

What to do?

Stage 1 Research into 'what other people have done'.

Stage 2 Evaluation of the 'impact' of 'symbols'.

Stage 3 Development of personal symbols

Stage 4 Display and evaluation.

SECTION III. 'Real' everyday design problems.

'Real' every-day design problems

Project One:

What? Practical environmental problem solving.
Organisation of space to accommodate human movement.

Aim : To give experience of organisational design within constraints of a limited space.

PROJECT: To organise, within a limited marked area on the floor, the equipment needed for a kitchen for two people.

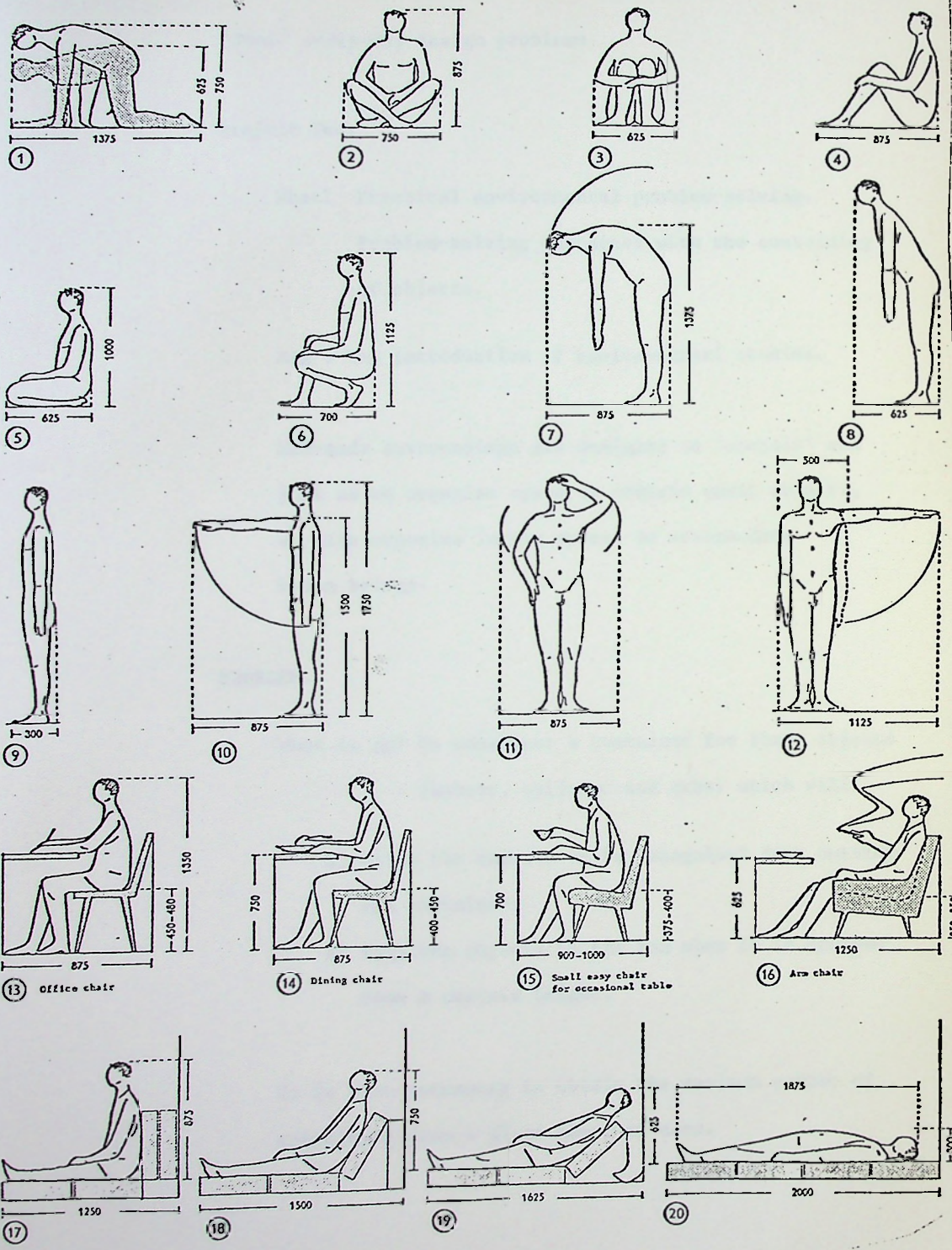
What to do?

Standard kitchen equipment should be measured and 'represented' with cardboard boxes, drawing boards, scrap wood, cushions and bins, stacked up to the required height.

In this way no expenditure is needed on materials, and an accurate assessment of space requirements, and human movement and measurement can be made.

Using such design methodology it is also possible to test all alternative suggestions and solutions. The working scale is realistic, rather than at model size, and genuine ergonomic and environmental problems are directly apparent.

BODY MEASUREMENTS



K(HANDOUT FOR STUDENTS)

MAN : DIMENSIONS AND SPACE REQUIREMENTS

'Real' every-day design problems.

Project Two:

What? Practical environmental problem-solving.
Problem-solving concerned with the containing of objects.

Aim : The introduction of environmental studies.

Man-made surroundings are designed to 'contain' and just as we organise space to contain small objects, we also organise larger spaces to accommodate human beings.

PROBLEM:

What to do? To construct a container for three objects (sphere, cylinder and cube) which will :

a) allow the objects to be recognised from outside the container;
b) keep the objects in the box when it is dropped from a certain height.

It is also necessary to obtain the maximum number of containers from a given sheet of card.

CONCLUSION

CONCLUSION

In this thesis I have examined how three different artists use the study of the figure in their work. We have looked at the figure as a moving machine. We have looked at how aspects of the figure have influenced an artist's work. We have looked at the human image in the self portrait.

This study has led to the development of three 'starter-programmes' for senior school students.

I would hope that these starter programmes will provide the basis for exploration on the students' part, of different aspects of the human figure in art education.

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