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* To my Husband *

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PSYCHOLOGY OF ARCHITECTURE

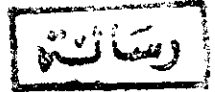
An Annalytical Study of The Human Needs, Desires, Emotions
& Perception in The Process of Architectural Design.

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FOREWORD

For too long we have known architecture as dimensions and proportions, without determining the behavioral effect of these dimensions and proportions on the individual; although every small line plays a major role on the general functions and behavior of a building which in turn serves the needs of the human being. "Architecture" says Geddes "is concerned with the social order not merely the physical and the social order is merely derived from the study of man" the psychodynamic phenomenon.

The Psychologist is only interested in how man thinks and the Architect is only concerned with how man lives; if their work is both interrelated and integrated, they would achieve the utmost comfort or

even enjoyment in co-operative designing for any architectural space.

The relation between the architect and the psychologist must be very strong and it would be better if the architect had sufficient knowledge of the psychological needs and the preferences of the human being.

¹In recognizing the human being, the architect has to try to explore the human's aesthetic reactions to different architectural means through his physio-psychological structure. He also has to study man's reactions to space, form, structure, material, texture, colour,

1. Art and visual Perception.
Gurnheim R.

light and shadow; and this can be demonstrated in the Gestalt school of psychology which studied and analyzed the architectural means on which the visual perception in art work depends.

The visual aesthetical appreciation happens because of the association of the different objective qualities, which depend largely on the observer's physio-psychological structure.

²To some, it may be due to the physical reaction to these objective qualities and to other architectural appreciation which may result from the combination of light, colour, form, material and texture.

2. Perception of colour.

³That is why knowledge about man's immediate environment; (the interior space in which he lives); the hollows within his shelters that he calls home, office, classrooms, corridors and hospital wards is as important as knowledge about outer space.

For too long we have accepted physical forms and administrative arrangements based upon outdated views of human activities. We are told that classrooms should have straight rows of chairs so that children will face the teacher, prisoners should be kept in separate jail cells, college students

3. Personal Space. Robert Sommer.

should have roommates and park benches should be heavy and undestructable so that vandals will not carry them away; with or without conscious philosophy or explicit recognition of the fact that in this case designers are shaping people as well as buildings.

It is possible to determine the size and the shape preferred by prisoners and guards, the best sort of lighting, the optimum distance between bars, the colours most suitable for prison walls and whether carpeting is sufficiently durable for cell interiors. There is a double irony in the situation:- First that such questions are asked so rarely and second that they ignore the super-

ordinate questions about prisons as being related to society; but prisons are no longer built for the punishment of criminals, as the criminal now is considered as an ill person and our aim is to cure him and help him face the world again as a useful, sane member.

If prisons fail to rehabilitate convicts it is probably not because the walls are grey rather than blue or the bars six inches apart rather than eight, but with the study of the different mental and social needs of the human being together we may reach our goal.

⁴The architect is in an impossible situation, which

4. Architect's Journal.
4 August 1971 p. 45.

shared by educators, physicians and lawyers. Perhaps a situation is a little more difficult in that he must accommodate his activities to satisfy a multitude of professionals, technicians and government officials, but the difference is in degree and not in quality. There is no guarantee that design professionals, city planners, landscape designers, architects, interior designers and industrial designers would benefit from college courses in sociology, but there is no doubt that they would gain by adopting a functionalism attitude based on user behavior as a guiding principle. The aim of this thesis is to show that any building may be designed and adapted according to the human being's needs

and that is why we have to design according to a structure of knowledge, which enables us to predict the behavior of the human being after it e.g. window, ceiling and furniture arrangement are the main evaluations towards activity, harmony, friendliness. Psychologists have generally considered three main sources of influences for human behavior, (1) genetic endowment, (2) past experience of the person, (3) the immediate physical and social environment.

Suppose an architect designed a "sheltered workshop" for handicapped young workers, where such a design never existed before; they will be free to attend or not as they please, but the probability of their doing so,

will have been raised to a degree that will depend partly on the siting of the building and partly on the design of the access. That is why we can say that behavior and environment interactions are circular. ⁴Winston Churchill "we shape our buildings and our buildings shape us" human behavior is not a response to, but an interaction with the environment.

But we are not interested in predicting the effect of buildings on behavior than the effect of behavior on buildings after which we can lay down a guiding principle for architectural design to help us reach to the satisfactory effect of building on behavior.

4. Architect's Journal.

4 August 1971 p. 45.

The effect of the building on behavior can promote either social interrelation or privacy and either the former or the latter is needed in certain parts of the building e.g. The person in his home must have complete privacy from his neighbours, yet at the same time he must have social contact with them by way of a grouped-around court solution.

Man has evolved from small societies; it is therefore logic that human beings relate to each other socially effectively in small groups.

The grouping of the population into smaller biological derived units is thus essential in planning buildings for human use.

One of the best examples of this theory is the Moslim's house where the houses were all grouped together separated by narrow crooked streets and almost stuck to each other yet each house separately is completely isolated with windows looking inwards and a cool refreshing court in its midst with a lovely fountain.

But at the same time we can say that besides its benefit as a sudden quick private court for solitary and restful evenings after a hard days work; it is also the result of the influence of climate and religion, for, the fountain with a small pond around it reflects the sky giving a spiritual feeling, and also this fountain was due to the fact that the moslims washed

five times per day and their religion stimulates cleanliness.

⁵Colour also must be put as a very important category as particular colours may give rise to particular emotional reactions; red to excitement or anger, blue to calm pleasure, black and grey to sadness or depression. But it is rather doubtful to what extent these emotional reactions are spontaneous or whether they are symbolically associated through cultural traditions.

However people with highly emotional or neurotic dispositions seem to give characteristic reactions to colour and every age has its own

5. Plan Your Home. William Graham.

ferences, old, young and children.

Perhaps one of the best examples of highly emotional disposed people are the old aged, who, being unneeded by their own family and have no place to stay, are in every way dependant on "The Nursery Home for the aged" for their psychological and health needs. The aim is to design a building which satisfies their need to belong and feel at home, workshops to fill their empty hours and at the same time put accommodations for their health without affecting their social life.

That is why we have to understand the psychology of the human element to design architecture. The design does not have to be a master-

piece but it should be possible to be made a workable shelter according to the previous terms.

This thesis is a trial to prove that psychology plays one of the main parts in the act of Architecture and the thesis begins by analysing the main psychological needs of the human being in any Architectural form beginning by "Need for Belonging". This can be demonstrated even in the small society of one's home where there is always a preferable chair and place that one is inclined to feel as his own, and, in big societies as in a Mental Hospital, there is always a special alcove, where, every Mental Defective isolates himself, naming the alcove as his own; yet of course the

feeling of belonging may be created not by the building but by the system of life lived inside it; but by a good building designed to meet his personal needs, the person's life is accordingly adjusted.

The next item is "Need for Privacy". The importance of this need in man's life is very great for in the tension of this age of technology, every person must have at least one or two hours per day in complete seclusion, even from his own family, in an alcove, or in his office in the house. Privacy is in degrees, the master from the rest of his family and his family from the rest of the building and the building from the rest of the grouping and so on.

Besides our "need for

privacy", the human being is an essential need for social contact" for many of those who have reached in our time to the state of nervous breakdown, or any mental outbursts, have reached his case, usually, due to the continuous strain of one's isolation to himself. That is why people need to have an opportunity to see each other and converse and exchange ideas and that has been seen through many years in different architectures.

My last point in the needs of human being, is the "Need for Comfort", this need is satisfied through the control of certain factors namely; temperature, humidity, air movement, light, sound, the position of the objects with respect to the human

being, colour. All these items when all conditioned to a satisfactory degree may make the human being in a peaceful state.

In the next chapter the thesis deals with Maladjusted behavior presented by phobias, which are normal fear of unaccustomed stimuli. In phobias the individual may be afraid of open places (agora phobia), closed places (claustrophobia), high places (acro phobia), dark places (Nycto-phobia).

Then the thesis passes on in the following chapter by analysing some of the main points related to how we perceive the external stimuli e.g. Proportion, composition, Scale, Rhythm, Space, Colour, Material and texture, Expression and Form. Our perception of external stimuli depends upon

our internal state that means our; emotions, motives, needs and after all our whole personality. It is always said that we perceive the world not as it is but as we are. That is why every one perceives different images of the outer world and that is what we call the psychological environment of the individual. The application of all the theories in this thesis is demonstrated in the last chapter where two examples are explained in some detail, "Houses for the Old Aged" and "Building for the Mental Defective"; these two examples have been chosen especially as their occupants are human beings with special psychological needs which have to be satisfied.

⁶Dr. Osmond votes the collaboration of architect and psychiatrist so that the therapeutic possibilities of architecture may be thoroughly explored.

"Perhaps by applying our measuring rods to the great needs of the mentally ill we may emerge with something valuable for the mentally well. We need here a module, derived not from the size of man's body, but from the way in which he disposes of that body in social relationship".

With these two examples, in which there is a trial to prove the theory of this thesis which is as Geddes says "Buildings canbe anthro-
pogenic (that is alien to

6. Progressive Arch.
April 1965.

man) or anthropophilic (suite-
ble for or attractive to man).
Buildings can also be socio-
petal, that is designed to
draw people together and engen-
der social relationship or
sociofugal designed to dis-
perse people", the thesis ends.

CHAPTER :1.FACTORS RELATED TO PSYCHOLOGICAL BALANCE AND THEIR INFLUENCE UPON ARCHITECTURE

I-I NEEDS