

ABOUT MEANING/QUALITY OF PLACE IN THE BUILT ENVIRONMENT
A RETURN TO REASON

by

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1977

Submitted in Partial Fulfillment
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About Meaning/Quality of Place in the Built Environment

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A Return To Reason

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Ronald Thomas Reed

Submitted to the Department of Architecture on June 6, 1981, in partial fulfillment of the requirements for the Degree of Master of Science in Architecture Studies.

ABSTRACT

It is the opinion of this writer that the success or failure of a "place" or space as defined by architectural or urban design terms is linked not only to its physical boundaries and the reality of its elements and their material composition, but also to the divergent meanings and the associations that they invoke within the observer. It is further my opinion that in the past, in a time when the "individual" was more directly involved, better able and more willing to take part in affecting the shaping of our environment, through the craft of building, the quality of "meaning" of which I speak was achieved as a natural by-product of this process. Because of this integration the meaning and quality of a place was better perceived "commonly" or generally by the larger public audience. The users felt more directly connected to the environment in which they lived. As the "individual" was removed from the process of creation and construction his absence was perceivable in the product of those activities, our built environment. As a result our spaces and places for living, our architecture, became more and more removed from the collective experience, more barren, less related to, or grounded in, the human experience and the human functions they were to support. The results were that the places we live in, work in, play in, were perceived as, and thereby often became, alienating and cold. The fact is, that while in many cases our newly constructed physical boundaries or objects, their functions, and their activities were still as the old, the places did not work, nor do they work today. They work neither at all, or, as well as one might expect if evaluating only their physical elements.

It is the intention of this thesis to attempt to analyze and describe the process, the ways in which meaning can be designed into or added to the environment and its architecture through acquiring an understanding of the process by which it occurs, or has occurred, naturally. I wish to study how this process can be integrated into our current practices of design and construction, and determine when, where, and how our current practices should be changed to accommodate what I see as an imperative to re-introduce "meaning" into our built environment.

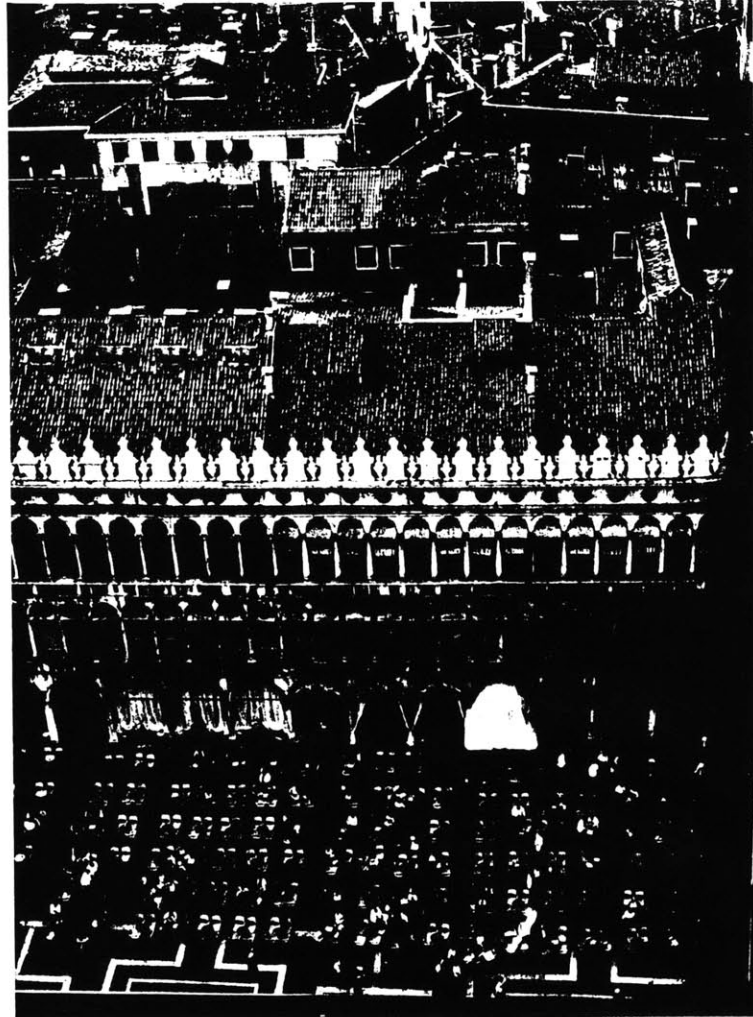
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James Thurber once sat by his window watching men cut down elm trees to clear a site for an institution in which to confine people who had been driven insane by the cutting down of elm trees.

This thesis is for all those people who have suffered in some way at the hands of a designer who, as the men Thurber had observed, knew little with regard to cause and effect, or the meaning of his actions.

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INTENTIONS

My primary intention is to influence the reader towards an attitude, not so much through argument as through instruction. I will present an accumulation of fragments of ideas that, individually, may not be convincing but when taken en masse begin to suggest a whole that is more than simply the sum of its parts. For this is how I see "meaning" - as a synergetic aphorism which is possible for one to comprehend only through an understanding of its parts, yet is not understandable as only an understanding of its parts. This process, sometimes simple and bound by real limits, begets results that know no limits.

How then does one proceed? I will present first what I believe to be the parts that join together to comprise "meaning," and then present a model, albeit a bit general and simplified, that suggests how and why these parts come together.

This is, after all, the written account of an investigation and will be successful for me if it simply generates further questions.

The nature of much of the material is fragmentary and will be presented as such. I will maintain a general discourse which will appear as a main body of dialogue and insert fragments where they might contribute to the discussion. These fragments will appear to the side of the main body of text as notes or sidebars.

Meaning within the context of the built environment and the designer's role in determining it is an elusive subject. It

is my hope that the way I have chosen to present this discussion, as an attitude, will enable it to emerge as something that is less easily discarded than a theory and thereby more pervasive in its ability to influence the reader.

An attitude is something that a person will consistently apply, as it is always with him, always evolving. Alternatively, a theory is often some "thing" that one calls upon only when a particular situation seems to demand it and is then returned to storage until it is perceived of as needed to be applied again - sometimes evolving in the process, but often not.



PROLOGUE

"It's not what they brag about, the lilacs, and the green tile dome on the city hall, and the Greek pillars on the bank. No, it is what happens after the sun goes down, and the vapor lights on the tall aluminum poles over the highway start to come on! Do you think I am raving?...You know: the sky is still brilliant, but evening is coming, and for the first five minutes or so, the vapor lamps have a color... and the thing is so magic when it happens it is enough to make you dizzy. Everything on the earth is sort of gray by then, yes, lilac grey, and there are shadows down the streets, but there, while the sky is changing, those lights are the most beautiful things in the United States! And you know? It's all an accident! They don't know how beautiful the light is."

Each of us has privileged access to states of mind, thoughts and feelings. We have an insiders view of certain human facts, a claim we are often unable to make with regard to other, more quantifiable, kinds of facts. We need to combine this knowledge with what we can prove. We must resist the designer's tendencies or external pressures to mistrust what is traditionally known as intuition. This attitude rejects understanding in favor of explicit knowledge and assumes all relevant factors can and will be knowable. People are complex beings. Given the human endowment, in what ways do people attach meaning to and mentally organize the space and place of our built environment? Culture is obviously an important factor, its influence is inescapable. Perception, values, memory, and aspirations all contribute to our notion of meaning. These factors need to be understood along with the means by which they affect each other and join together to structure our personal view of the world.

It is through this understanding that the whole becomes more than simply the sum of its parts. It is only with a clear and complete understanding of these parts that we can hope to be able, as designers, to acknowledge the often unresolvable, always complex, settings in which we find ourselves and attempt to address them in an enlightened fashion.

Professional designers often move too quickly to models or inventories. The layman often accepts too readily these "experts'" opinions. The result is that the rich experiential data on which these abstractions depend are easily forgotten.

Keeping this in mind, this inquiry attempts to describe a process by which we affix meaning to our built environment, through gaining an understanding of its parts. It is hoped that through this understanding the designer may achieve a means to adequately analyze the environment in which he finds himself in a new way.

It is further hoped that through an understanding of which parts of the process the designer has control, and to what extent these parts influence the whole, the designer can better decide where and how to exercise his creative abilities.

It should be kept in mind that this is an investigation. The approach is descriptive, aiming more often to suggest than to conclude. The discussion will often be fragmentary by design, or necessity, but always in the attempt to influence the reader into re-examining and calling to question his comfortably

held ideas. It is an attempt to suggest an attitude for the designer to adopt, rather than a code for him to follow. With these ideas in mind I will begin.



INTRODUCTION TO MEANING

"A meaningful environment forms a necessary and essential part of a meaningful existence. As meaning is a psychological problem, which cannot be solved through control of production and economy alone, architecture, in the true sense of the word, ought to be a primary concern for modern man. The problem of meaning in architecture, however, is hardly understood, and there is much research to be done. Architectural research can only make use of laboratory experiments to a very limited extent, and theoretical insight above all has to be based on an analysis of already existing environments."

"Say what?"

"I say, your mama!"

"What you mean boy?"

And it is just there that we find the question that is central to this inquiry: the question of meaning. The question of meaning then becomes the problem of meaning by virtue of its absence. The quest to find meaning is, after all, one of the most basic of human drives - quite possibly, the most basic. A drive which we do not likely share with any other portion of the animal kingdom. It is uniquely human. We find the question of meaning at the root of language and religion. Almost as we would carry a curse, we carry with us the necessity to find meaning in our actions and the actions of others. We cannot escape from meaning even in our dreams.* It is, in a sense, the ultimate organizing device of human existence, yet, as a designer or user of the environment, we often regard meaning as something trivial, secondary, a matter of aesthetics, sub-

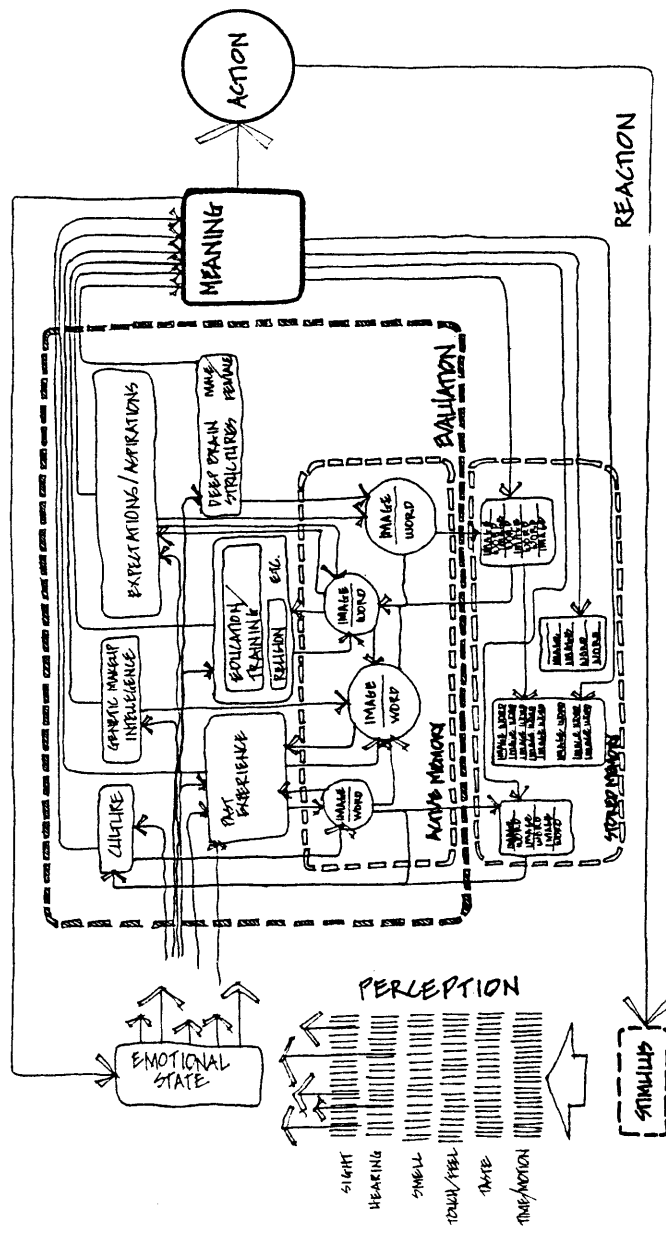
This has been the case ever since Freud opened the door to the world of dreams as a way of examining our subconscious minds.

servient to function, economy, and utility. We consider meaning as not even being equal to these but somehow less important. We codify and abstract meaning to the point of elimination, and always in the name of elevating it to its proper place.

Perhaps I am too quick to condemn. After all, what do I mean by "meaning"? What does anyone who speaks of it mean? Are we all talking about the same thing? Can we agree on the meaning of meaning? Agreement may be possible but not without a good deal of effort.

The concept of meaning is one that is multivalent, and itself has many meanings. This is illustrated in Ogden and Richards book The Meaning of Meaning.^{*} The authors point out the confusion of philopophers over the basic use of the term. Each philolopher assumes that his use is clear and understood, whereas the authors show this to be far from the case; they distinguish sixteen different meanings of meaning. Each use of meaning is different from any other, and the particular case must be understood from the context. Thus a doctor might say the meaning of a stomach ache is hunger; a politician the meaning of success is power; or a clergyman the meaning of religion is forgiveness.

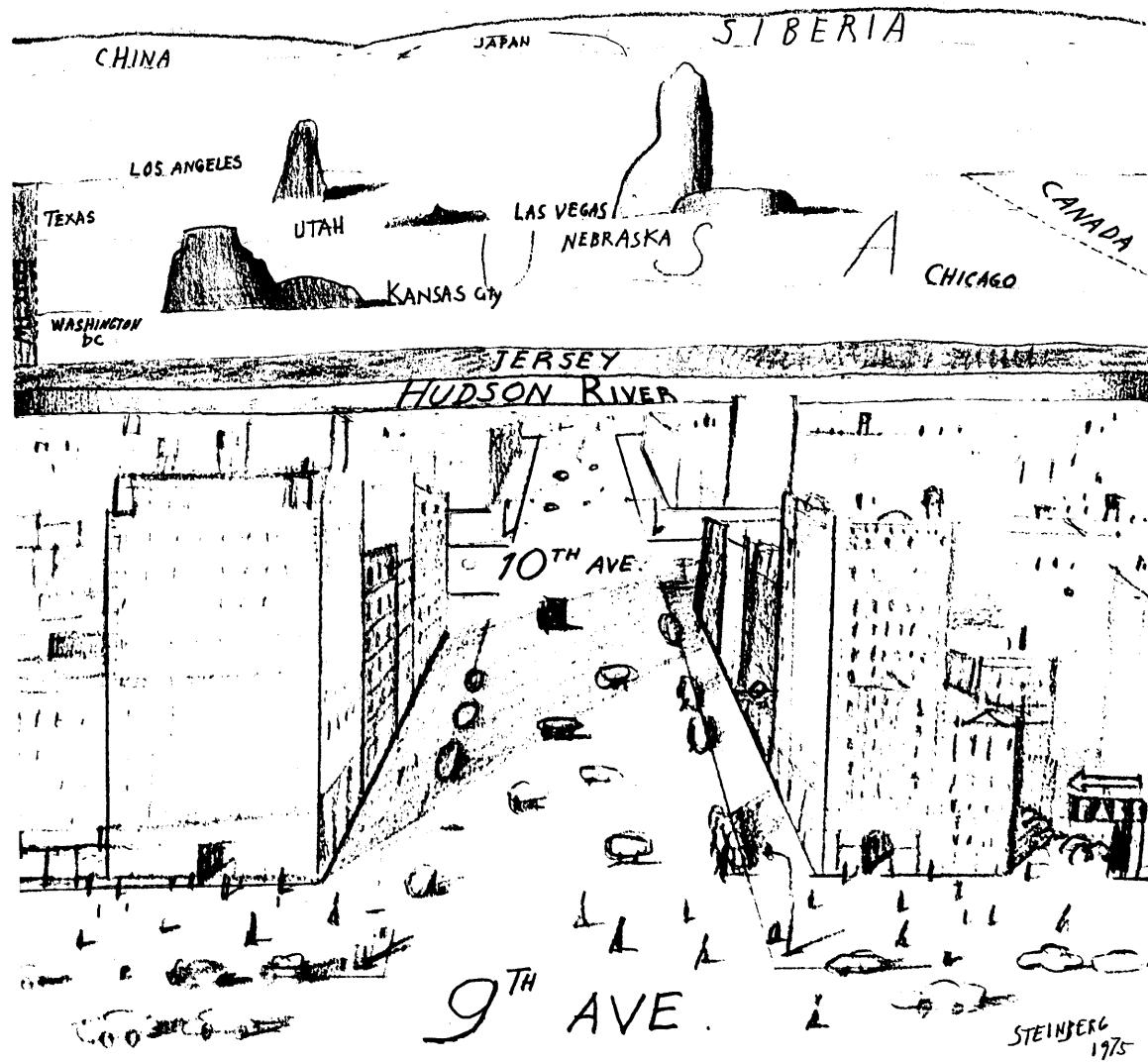
What, then, is meaning as it pertains to our built environment? This too is multivalent and bound by context. Meanings in our environment range from the specific nature of the smal-



lest parts to the overall and general character of the whole. The definition of meaning is thereby circular while at the same time being particular. It should be noted that both with regard to meaning itself, and to the experience of the built environment, our concept of the whole is made up of an assemblage of its parts. Yet, in the synergetic sense, our individually arrived at meanings are more than only a sum of their parts. How does this leap occur? Is understanding the leap important to our inquiry?

In part, understanding how the leap occurs is at the heart of our inquiry. I will attempt to shed light on the how of it, but, I am afraid, only in an abbreviated manner. Yet I believe that by doing so my purpose will still be served. That purpose is to make apparent to the would be manipulator of the built environment the importance of the concept and the event of how it is achieved. This is necessary, for I fear that as of late the designer has lost sight of the significance of the how and the why of meaning.

We must begin by looking at the various pieces that combine to affect each other, and recombine in infinite variations to effect what we simplistically label "meaning."



PERCEPTION

Our immediate awareness of the phenomenal world is given through perception:

"A large body of experiential data is consigned to oblivion because we cannot fit the data to concepts that are taken over uncritically from the physical sciences. Our understanding of human reality suffers as a result. Interestingly, this blindness to the depth of experience afflicts the man in the street no less than it does the social scientist. Blindness to experience is in fact a common human condition. We rarely attend to what we know. We attend to what we know about; we are aware of a certain kind of reality because it is the kind that we can easily show and tell. We know far more than we can tell, yet we almost come to believe that what we can tell is all we know."

Yi Fu Tuan, Space and Place:
The Perspective of Experience

Perhaps perception is the portion of meaning that we, in the design profession, feel that we know the most about. But is that enough?

On the surface it seems simple enough. Within the normal course of events, a thing, a place, is the way we perceive it to be. Of course upon closer inspection of that statement we realize that it does not adequately describe the reality. The statement simply is not true, at least not with regularity.

What is true? The facts are that as ordinary humans we have generally five major ports of entry which allow stimuli from the external world to enter the body. These we refer to as our senses: the sense of sight (visual), sound (auditory), smell (olfactory), taste (oral), and touch (tactile, temperate).*

It is through these senses that we admit bits of data (stimuli) from our environment. This data is then subject to a com-

The perception of time, or the motion of our bodies through space, might be considered as a sixth sense.

plex series of matching, comparing, categorizing, and grouping processes that finally result in the bits being internally organized and evaluated.

Perhaps before going further it might be wise to make certain that the difference between perceptions (subjective) and external stimuli (objective) be made clear. It is an important difference and one that is often overlooked. I have, for example, known designers to use the two terms arbitrarily or interchangeably, thereby setting them equal to each other in meaning. It is important that the two concepts be held separate.

The difference between the two becomes clear if one considers the example of an individual who is color blind. While he may be looking at an object in the environment that in actuality is red (stimuli) our subjects perception of that object may be registered as one of some other color entirely. It is clear that the stimulus and the perception are not interchangeable concepts and must not be used as if they were.

Perception and Training

Actually, though, it is within the area of physical stimuli and our perception of it, more than with any of the other factors influencing meaning, that we come closest to the existence of absolutes, to rules, or physical laws and their influence. There are, after all, some physical "laws" to which the physiology of the body and its organs must respond and be defined by.

It is through the manipulation of these "truths," of these physical laws that the designer may work. The designer clearly has control, or rather the potential for control, over what he physically places into the environment. He has the power to control the stimuli to which we are subjected but not always our perception of it.

There are associated with perception, however, certain principles that often operate almost as if they were indeed physical laws. If equipped with an understanding of these principles, the designer is often better prepared or better able to anticipate a perception of a particular stimulus he is considering to introduce into the environment as form. These principles are often grouped under the heading commonly referred to as "FORMAL AESTHETICS." Much of what we now call architectural training devotes itself to precisely the study of these principles, and with good cause. It is necessary for the designer to understand these principles in order for him to understand the consequences of his actions in manipulating the physical world in which we live. However, an understanding of these principles alone is not enough.

I cannot, and it is not my intention here to, discuss the entire field of "formal aesthetics" as it relates to perception.* It is hoped that the reader already has a basic understanding of this field but a few examples will help to clarify the discussion at this point.

For a more complete discussion of this area see:
Sven Hesselgren, The Language of Architecture: Part II Formal Aesthetics.

There are two ways in which we receive information regarding our perception of forms: visual forms, which we perceive through our eyes, and haptic forms, which we perceive by means of our hands or some other part of our body. Within the context of visual perception of form, some of the concepts we can look at with importance include those of figure/ground, size and perspective, light and shade, curved lines, proportion, rythum, color, etc.. Within the context of haptic experience we might consider the importance of texture, sound, smell, time, and motion.*

Psychology of Perception

The psychology of the human mind plays an important part in perception. It is necessary to be aware of the contributions of the perception psychologists with regard to the area of certain laws that operate when details in the visual field come together. These ideas are often grouped together under the common heading of the "Gestalt Laws." Some examples follow:

1. The Adjacency Factor of the Principle of the Shortest Distance.
2. The Directional Factor.
3. The Similarity Factor.
Similar elements tend to coalesce to form groups. The similarity factor may override the factor of proximity.
4. The Factor of Common Motion or Common Destiny.

For a more complete discussion of this area see:
Sven Hesselgren, The Language of Architecture: Part I

VISUAL GESTALTS

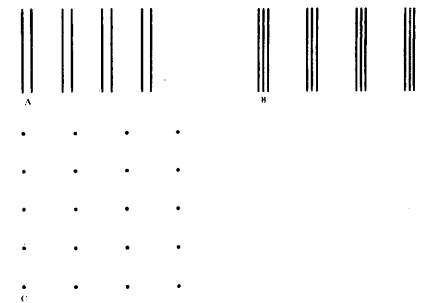


Fig. 2-37. The Adjacency Factor makes details near to each other create Gestalts.

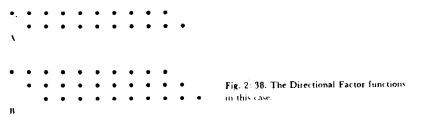


Fig. 2-38. The Directional Factor functions in this case.

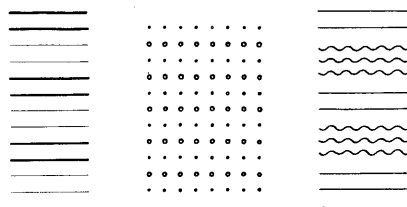


Fig. 2:39. The Similarity Factor. Similar details become in perception grouped together.

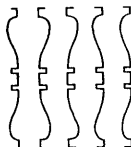


Fig. 2:40. The Symmetry Factor is stronger than the Similarity Factor.

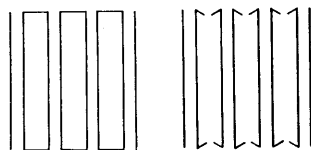


Fig. 2:41. The Closure Factor here overwhelms the Adjacency Factor.



Fig. 2:46. Wertheimer's "Experience Factor" so called.

COLOR GESTALTS

"Some flies sit motionless on the ceiling and appear to form a homogeneous group, in which no subgroups can be distinguished. Some fly off in the same direction. The flies taking part in a uniform motion are perceived as a separate group and those remaining are also perceived as a separate group. Should those which have flown away return to their former places, they will no longer be perceived as a separate group."

5. The Symmetry Factor.
Symmetrical elements combine more readily to form Gestalts than, for example, similar elements.
 6. The Closure Factor.
Lines joined together form Gestalts more easily than lines near each other. The state of belonging can be determined by the closure factor even when it is incomplete.
 7. The Factor of the Good Curve.
 8. The so called Experience Factor.
Unlike those listed above, this factor does not belong to the structure of the visual field of perception. Experience is the operative element. By way of example, if the illustration is rotated 90° the Westerner recognizes it from experience, as a letter. Contours which do not exist are nevertheless perceived. It is the meaning that is the Gestalt factor, not the experience.
1. The factor of color equality: form elements of the same color unite to form Gestalts. This may be said to be a special example of the general equality factor described with the form Gestalt factors. Color equality can at times dominate form equality and possibly other Gestalt factors.
 2. The factor of hue equality: the dominance of one hue over

another. This factor is most noticeable in those people suffering from color blindness.

3. The factor of saturation and hue equality.
Color gestalts of this kind can give rise to a sensation of depth, as they can be perceived as shadows of the same color.
4. The factor of the small interval.
The difference experienced between two colors is called the interval between them. Color pairs that display smaller differences are distinguished from those displaying bigger differences, and the former unite to form Gestalts.
1. The stereoplastic principle is fundamental to haptic perception. We are not satisfied unless we can grasp an object. This need is a manifestation of the stereoplastic principle.
2. The principle of successive procedure.
Impressions are obtained successively. Regarding successive impressions, music is similar to the realm of feeling but the time sequence is fixed and invariable.
3. The kinematic principle.
Motion as such, gives rise to the formation of Gestalts. This principle is second in importance to the stereoplastic one.
4. The mensuration (metric) principle.
This function occurs when we distinguish between similar but unlike geometric forms, a circle and an ellipse for example, by haptic means.
5. Typifying and Schematizing tendencies.
Haptic perception indicates the type to which a form belongs, a square or pentagon, for example, but it cannot adequately be used to distinguish between examples of the same type.

HAPTIC GESTALTS

For a more complete discussion of this area see:
Sven Hesselgren, The Language of Architecture.

The Gestalt psychologists are right to affirm that the human brain does have a preference for patterns which ultimately balance out. Perhaps this is because balance is the most obvious form of order, and certainly a prime task of the brain in its transactions with the sensory world is to discover patterns of order which reduce the gross level of complexity presented by the environment.

In an architectural context, the components perceived as contributing to balance may include color texture, tone, as well as mass, intricacy and inferred weight. Even symbolism may be responsible for setting up a force-field which may significantly affect the 'force-system' established by purely visual inter-relations of phenomena.

Peter F. Smith, Architecture For People; Urban Aesthetics

These are but a few examples for the purpose of illustration and should not be considered a complete representation of the Gestalt phenomena.*

Deep Brain Structures

Another idea that has recently emerged and is creating much controversy is the extent to which we possess deep brain structures that determine the ways in which we perceive or our abilities to do so. The debate centers over the particular capabilities of individuals, especially with regard to male/female differences in abilities, to perceive certain specific sorts of phenomena. Our abilities are tied, theoretically, to the differences in the deep brain structure between the two sexes. This area of inquiry has far-reaching implications with regard to the subject of perception and meaning and needs to be observed closely as research continues.

Misinformation and Perception

At this point I would like to depart from the general discussion of perception in order to make a point about perception and one of the inherent dangers it holds for designers. The danger lies in the realm of misinformation.

One belief, which is pervasive and, which is based primarily on misinformation has to do with our general conception of aesthetics and their relative importance. Recently, Kevin Lynch offered the idea that one of the reasons his work on imageability and city form, first introduced over twenty years ago, has had such a minimal impact on the built environment is because most people believe that the aesthetic quality of the environment in which they live is of secondary concern at best. These people believe that there exists a long list of other priorities which need to be addressed before "aesthetic" concerns should be considered.*

Lynch, of course, did not share this opinion, nor do I. I will offer a theory of my own as to what one of the possible reasons for this shared belief may be further on in the discussion.**

Perception, Meaning, and Survival

Nicholas K. Humphrey, in an article on natural aesthetics, poses an interesting argument. He argues that aesthetics, or the concept of beauty as it is linked to mans perception, is

*Excerpted from a longer discussion held with Kevin Lynch in a seminar in Lloyd Rodwins course on Images of the City, M.I.T. 1981.

**I will expand upon this point at a later point in the discussion. See page for a more detailed account.

on the order of a biological need or drive. He believes that this need has evolved over time, through the process of evolution, as an extension of mans necessity to classify and order the world in which he finds himself, for the purpose of survival.

"Yet in the quest for a functional explanation it would be self-defeating to deny aesthetic preferences any useful role. If the response to beauty in one form or another occurs regularly and consistently within the human species it is fair to assume that it confers biological advantage. Biologists work on the assumption that Nature gives little away for free: if men take pleasure in looking at particular sights or hearing particular sounds we may expect that the consequences of their doing so are beneficial, though the benefits may well be indirect and the beneficiaries may be quite unaware of them."

"The answer I propose is this: considered as a biological phenomenon, aesthetic preferences stem from a predisposition among animals and men to seek out experiences through which they may learn to classify the objects in the world about them. Beautiful 'structures' in nature or in art are those which facilitate the task of classification by presenting evidence of the 'taxonomic' relations between things in a way which is informative and easy to grasp."

Nicholas K. Humphrey, "Natural Aesthetics", cited from: Architecture for People, edited by Byron Mikellides.

Peter F. Smith, "Urban Aesthetics", cited from : Architecture for People, edited by Byron Mikellides.

Humphrey is further supported in his opinion by Peter F. Smith who, in his article on urban aesthitics,^{*} takes this idea a step further.

"The intuitive capacity for aesthetic appreciation has at least four distinct components which transcend time and culture. Whilst cultural factors will have a profound influence upon the manifestations of these components, the fundamental mechanisms seem to be universal within what we may guardedly term 'advan-

ced cultures! They may be considered as four aesthetic programmes written by the genes and adapted to environmental circumstances. They are: (1) a sense of pattern; (2) appreciation of rhythm; (3) recognition of balance; (4) sensitivity to harmonic relationships."

Smith goes on to deal with the concept of the "limbic value system." This can be characterized by the experiences in which a perception or external stimulus grants an immediate detailed pleasure response without the "fact" being perceived.

"There is no doubt that towns and cities are greatly enlivened by injections of the somewhat licentious sensory events that appeal to the limbic brain. In particular, the traditional market-place makes a most important contribution in this realm of value. Where there are pavement cafes and an infinite variety of ad hoc contributions to the environment, this value system may exist in a dialectic relationship with higher aesthetics...In the United States limbic motivation has exceeded all bounds in places like Las Vegas. Even externally sober tower blocks like Water Tower Place in Chicago become palaces of gold and glitter inside...However, places which have the most profound appeal are frequently those in which there is an alliance between the higher intuitive aesthetic values and those stemming mainly from the limbic brain. Without injections of controlled vulgarity, the built environment might be a sophisticated work of art, but intolerable to inhabit."

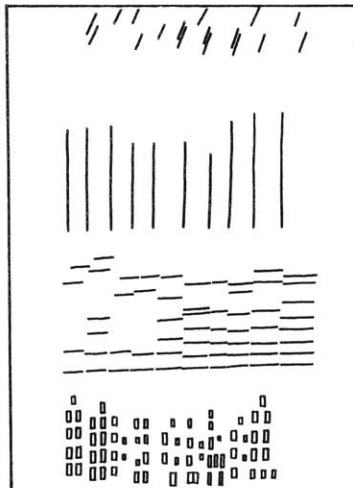
The attractiveness of this limbic experience often sets the stage for the designer to fall victim to what I call the "pleasantness fixation." It must be kept in mind that these types of places, those which offer stimulation by virtue of their limbic appeal, are necessary and desirable parts of the built en-

"Currently there is considerable interest in the idea that we come into the world already equipped with an elaborate set of mental programmes which establish probabilities as to the way we shall react within given environmental situations. Nicholas Humphrey proposed that aesthetic awareness constitutes such an intuitive mental programme which developed by normal selection mechanisms because of its survival value. He suggests that one of the programmes associated with the classification facility of the brain forms the foundation for aesthetic perception. In this general principle, he is supported by D.E. Berlyne, who believes that 'the brain could well be favourable to certain patterns quite apart from their role in everyday experience'. More recently, G. Sommerhoff, a neurophysiologist, has maintained that 'advanced organisms have become responsive to the information profile of the sensory inflow, and...this may be the biological basis of man's aesthetic sensibilities'. What originated as a classification capacity has evolved into an aesthetic awareness, something which possibly has indirect survival value."

Peter F. Smith, Architecture for People; Urban Aesthetics



12 Honfleur, Normandy, France



13 Patterns of lines, edges and shapes

When experiencing portions of the built environment there are often places or portions that one would describe as "picturesque". We may experience such places as pleasant because they possess a quality that is derived from a sense of being "balanced" or "framed".

This is because such places mimic the contrived balance and pattern of a painting (synchronic rhyme). One such scene is the view across the harbor towards the Medieval houses of Honfleur in Normandy. At first it seems to be a case of amicable anarchy, but then gradually an awareness of pattern supercedes complexity. Certainly all the houses are of different height, consequently storey heights also differ. Hardly any two plot widths are the same. Yet there is one overriding feature which immediately suppresses this heterogeneity. Not only roofs but also nearly all the walls are clad in slate, imposing upon the scene a high level of uniformity of color and texture.

The variations in plot width are contained within limits that suggest likeness rather than difference, and within each facade the ratio of window to wall is fairly consistant; so is the proportion within the subdivisions of the windows themselves. Rhyme has overtaken complexity.

On another level of perception there are four integrated patterns which may register within the brain as features contributing to like-

ness. Unless we have an analytical disposition, this pattern recognition will tend to occur some distance behind the forefront of consciousness. At roof level there is a pattern of lines sloping from left to right. The interval is irregular, but there again there is more to link them into a pattern than to suggest that they are random phenomena. The same can be said about the vertical divisions between plots. In the style of the Middle Ages, each floor tends to overhang the floor below it. This produces a clear pattern of short horizontal lines accentuated by shadow. Finally, the arrangement of windows is such as to establish a strong pattern of small rectangles. In contrast to the rigid pattern of modern fenestration, just the right balance seems to have been struck here between autonomy and subordination to the whole.

Peter F. Smith, Architecture for People: Urban Aesthetics

vironment. They are needed, but by themselves they are not sufficient, regardless of how much respite they might offer.*

The problem of the "pleasantness fixation" is that these places and experiences, by their very nature, are highly visible. As a result, the designer often has a tendency to rely too heavily on their limbic qualities for a "quick fix". This often happens to the detriment, through exclusion of overlooked potential, of occurrences that are less apparent or more difficult to orchestrate but which may possess greater lasting value. This is not to say that the first (limbic) cannot become the second type of experience (lasting) or that the limbic experience should be avoided. On the contrary, it is only a caution to be wary of the "quick fix". The limbic experience should be used by the designer, but by intention and not default.

Summary of Perception

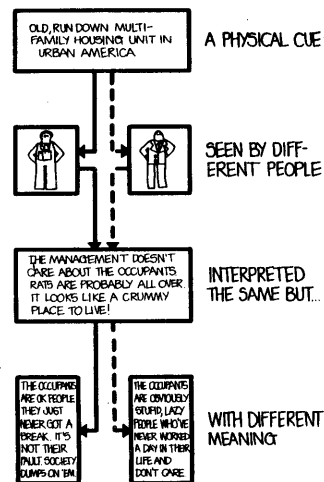
In common usage the term "perception" is usually taken to imply not only a physical reception of an external stimulus but also some evaluation of that stimulus.*

This process of evaluation involves the internal (cognitive) juxtaposition and analysis of factors over which the designer rarely has the same amount of control that he has with the environmental stimuli. The designer must, therefore, begin to rely on his ability to anticipate these chains of response. Because of this he sometimes begins to alter the direct actions

We might take as a parallel example the situation that we find quite often currently depicted with regard to human relationships. The situation where we find two single people who meet, perhaps in a singles bar. Each uses the other sexually and gains gratification but neither seems able to form any further bond or reason for being together. Though they may return to each other for this single purpose, we are led to believe, or might suppose that, in fact, eventually the pleasure sensation will not be enough (or it will become a hollow experience) unless it is supported by some additional meaning.

"What is your perception of the place?" In asking the question we are clearly not looking for a detailed list of the incoming stimuli, but are rather asking for an opinion with regard to all of these incoming bits of information. We are asking for the result of an evaluative process.

he takes when manipulating the environment (design decisions). He must attempt to manipulate the internalized aspects of human perception as best he can through his calculated manipulation of the external "cues."



The designer must contend with our individual and collective emotions, values, and aspirations. This is no small order. Training, education, culture, preconceptions, attitudes, bias, - the entire range of past experience - join together to form a set of values against which all immediate experience and information is measured. How, then, does the designer come to terms with these shifting, often conflicting, variables? How does he decide which factor is the operative one at any given time? Is this decision possible, is it necessary? How does he attempt to control this shifting set of conditions?

The designer must become aware of the extent of these factors' influence and he must acknowledge that it is important that he do so. Many designers do neither, and still more rely entirely on their own values. This does not mean that the designer has to accept this baggage that all of us, individually or collectively, bring to bear on the environment. It is imperative only that he realize these values are just as real as the conditions that are set for him by "bricks and mortar," and in many instances less easily manipulated.

In this section I will describe some of what I consider to be the central elements of this evaluative process. But, just

as with the previous discussion of external stimuli and the ways in which it affects perception, the discussion regarding evaluation cannot be a complete and in depth description. I offer it only to partially illustrate the contribution of these evaluative activities of the individual's mind towards "meaning."*



Fig. 26: 6. In this drawing the meaning is dependent on the concept of motion that by will can be either to the left or to the right. (After Tinbergen)

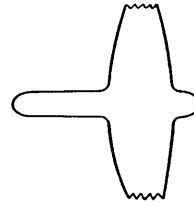


Fig. 26: 5. "My Wife and my Mother-in-law". Drawing by W. E. Hill.

If one makes the decision to take a cursory examination there exists an obvious problem: these factors do not affect and influence each other in an abbreviated fashion, and any attempt to abbreviate them must be, in fact, doomed to fail. Nor do they consistently affect each other within a particular hierarchical organizational pattern. (For a discussion of my impression of the overall structure refer to pp.000)

It is hoped, however, that the examples cited might persuade the reader to accept the potential of these factors for affecting the quality of the space he inhabits, and prompt him to a further, more extensive, investigation of particular aspects. To facilitate this further inquiry the following sources are suggested as a starting point:

Topophilia - Yi Fu Tuan

Space and Place - Yi Fu Tuan

Remembering - Sir Fredric C. Bartlett

Architecture for People - the article entitled "Architecture and Emotions" - Richard Kuller

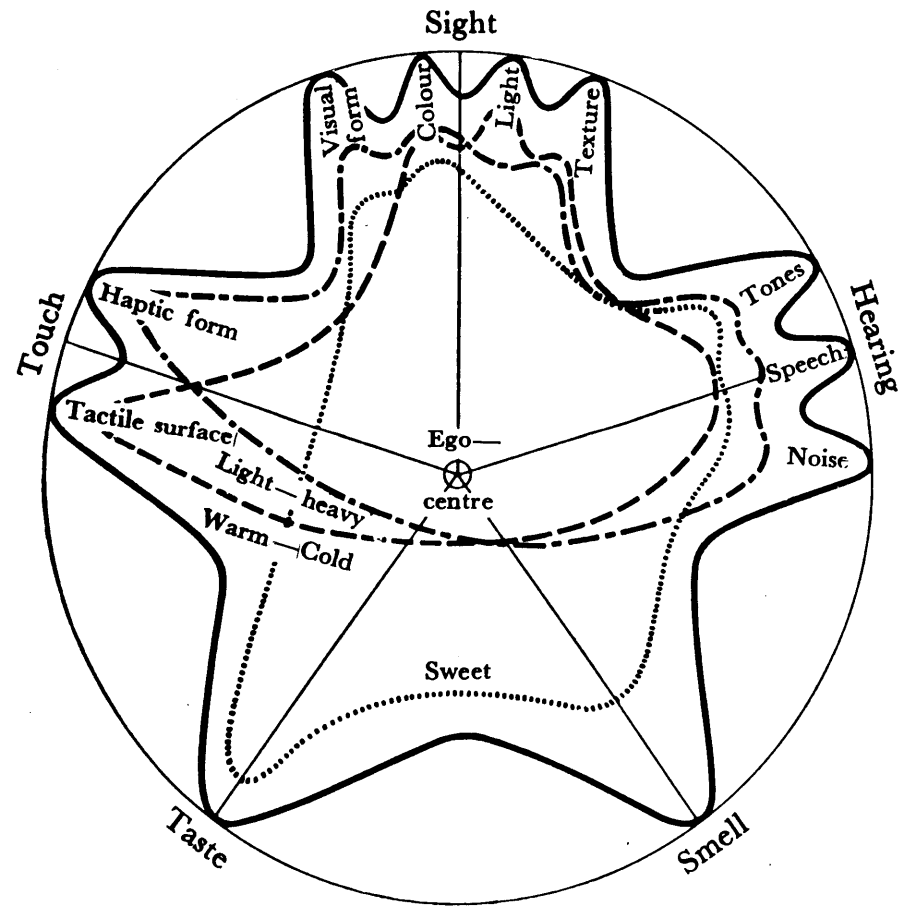


Fig. 36: 1. A graphic representation of how "pure" perception modalities can activate different sensory emotions.

EVALUATION

Emotion

I will begin my discussion of the evaluative influences with one of the most often overlooked factors, the influence of emotion.

To the psychologist emotion implies a complex state of the human organism involving not only feelings such as sadness, awe, fear, rage, surprise, joy, but also bodily changes and impulses towards all forms of behavior.

The work of Rikard Kuller is interesting with regard to the role of emotion. Kuller attempts to illustrate the connections between emotion and the perceptual characteristics of space.

With regard to the perceptual characteristic he calls "pleasantness,"* Kuller says:

"...those artifacts which seem genuine, well designed, lasting, and meaningful are judged as pleasant while those which are experienced as poorly planned, temporary, without meaning, are judged as unpleasant. But, while certain artifacts are considered to be pleasant because they are antique or simply because they have sentimental value, others are appreciated for being new, modern, or unused... Other attempts at predicting pleasantness make use of key concepts such as harmony, rhythm, complexity, uncertainty, mystery, etc., and often imply a search for the appropriate or optimal stimulus situation."

Kuller suggests that in order for us to understand what it is we actually like or dislike about a space or object, and why, we must understand the underlying significance of "pleasantness." It is his contention that the most significant aspect

This term, "pleasant", seems to be a major characteristic as evidenced by its frequency of use in the literature by both designers and laypeople alike.

It is now widely accepted that the basis of aesthetic experience stems from the interaction between

chance and order, complexity and redundancy. Complexity comprises anything which causes arousal through some kind of mis-match with the existing organization of information in the brain. Arousal involves the activation of the orienting reflex which comprises a wide range of physical changes necessary to enable us to cope with the threat inherent in uncertainty. This ties in with Humphrey's indication that all higher species of animal derive pleasure from encountering moderate novelty, to the extent that they will deliberately search for it. This pleasure associated with the experience of moderate novelty has been related to a particular class of emotions associated with the sympathetic division of the nervous system. This class of emotion is directly linked to the generalized condition of arousal. It promoted the numerous physical changes which have the effect of 'toning up' the organism. There is inherent pleasure in the experience of arousal, which is called by psychologists the 'primary reward system', and by the rest of us 'excitement'.

cited from:

Peter F. Smith, "Urban Aesthetics",
Architecture for People

Consider the example of Sorte's discovery that rounded-off forms are generally considered to be more pleasant than square forms. It is easy to identify some experiences which help to explain this evaluation - the round breast of the mother, the round shape of the feeding spoon. Harry F. Harlow found something interesting that may suggest further investigation. In his experiments on social deprivation he found that baby apes would not accept a mother substitute made of metal wire, although it offered milk, but preferred a soft, rounded but milkless rag doll. Thus emotions, whether of personal, cultural, or biological origin, decidedly play an important role in the evaluation of the environment, by a process of symbolic projection.

You might, for instance, consider your living room to be very pleasant. Sometimes, you look around it, you might feel pleased or happy. At other times you might hardly notice the room. But even at times of sadness or depression you are not likely to find the room unpleasant. While emotions might shift rapidly, the qualities projected onto the environment remain much more stable.

of this concept of pleasantness stems from the fundamental biological urge we all have for survival. In order to survive we must possess a system by which we will be able to detect, classify, evaluate, and act against elements in the environment that impinge upon us. Pleasantness may be seen as a projection onto the environment of an evaluation process.*

Emotions also play an important role in the perceptual evaluation of the environment through the process of symbolic projection. However, we cannot expect to find a one to one relationship between emotions on the one side and the perceived qualities of the environment on the other.**

It should be clear that the emotional state of a person may be affected by the physical environment in which he finds himself. This emotional state may in turn effect one's perception of the qualities of that particular space, and vice versa.

The emotions that the built environment evoke within us are often not the strong emotions that are easy to recognize and identify, but rather the delicate result of persistent everyday influences. This accumulation of emotional residue from our day-to-day contact with the environment quite often has a far greater impact on us than many designers are willing to acknowledge. However, the designer must first acknowledge this influence if he ever hopes to utilize human emotions to invest the places in which we live and work with meaning.

There have been attempts made in experimental psychology to

clarify how emotions are connected to "basic perceptions", or perceptions without meanings. Psychologists have found that certain emotions are latently connected to certain perceptions. It seems that sensorial emotions are more easily made manifest by sensations than are the "deeper" emotions. These deeper emotions need to be supported by cooperation between several sensations simultaneously present. The "deepest" emotions, especially the "basic" emotions, will not become manifest simply in the presence of a pure or basic perception; a meaning is necessary as a link.

For the present discussion it is enough to understand that emotions can provide or contribute to an internal atmosphere, disposition, or state of mind in which perceptions are evaluated and affected.*

In addition to perception, emotion, sentiment, the physical laws and psychological concepts that define them, and the uniqueness of self we refer to as personality,** meanings in architecture and the built environment are arrived at through a complex and layered meshing of factors such as values and memory - as constructed through the internal process of imaging. The process of structure of this meshing, and the way it is accomplished, I will address later.

For a more complete discussion of emotion and sentiment with regard to the built environment see
 see
 Sven Hesselgren; Man's Perception of Man Made Environment or The Language of Architecture.

There exists in all of us particular predilections towards certain behavioral traits which are the result of certain genetic combinations formed during conception. These potentials, when combined with our experience, formulate our individual characters - what we call personality.

Values

At this point in the discussion of the evaluation process, we must confront the idea of "held values." Is it possible for the designer of the built environment to deal with values? In many ways this is a moot point. Regardless of whether he intends it or not, any action that a designer takes must, by its very nature, deal with values.*

Artifacts, including buildings and the built environment, are one way of making concrete the immaterial nature of values and norms of society. What is significant to realize is that these objects or places may be expressing a set of values different from, and possibly inconsistent with, those held by the people inhabiting the space, regardless of how congruent they may be with the values of that portion of society responsible for their creation.

It is therefore important to understand something of how "values" come into being. What things come together to comprise any held set of values. Which of these are within the reach of the designers influence or control, and which are likely to be beyond this reach. It is also important to understand that there exist many sets of values that are likely to never be brought into congruence. And further, it is important to understand that this conflict must be accepted rather than ignored, as is often the case.

What factors join together and interact to make up one's set of values? The following is a general list of influences or factors:

Culture - the mutually agreed upon social laws, customs, and commonly-held beliefs of any particular group. Culture may influence aspects of life such as class distinction, accepted and unaccepted norms of social behavior, and concepts of beauty, nationalism, language, and religion. Individuals may also align themselves within smaller sub groupings, or sub cultures, which

will exist within the context of any larger, more general culture.

Special physical abilities or limitations - any physical or mental deviations, peculiarities, or handicaps one might possess. An individual's particular level of intelligence falls into this category of influence as well.

Experience (past/future) - includes education and/or training and general and specific knowledge. Experience also includes all past experiential data (through perception) and cognition (through association, media, education, imagination, etc.) All this experience is accessed through memory.

Memory - a storage and retrieval process of the human mind that operates on the information that is stored and supplied by our various schemata after having been received through experience. Memory is realized through the process of verbalization and imaging.

Imaging - a process which happens internally but with certain regularities. It can be influenced by our deep brain structure (male/female) and, to a certain extent, by language.

Expectations, Aspirations, and Anticipations - these also play an important role as measuring modulators.

Values, of the individual and of any culture in general, are constantly in a state of flux or transition. Continuous shifting is the normal, and for that matter, healthy situation. How then does a designer attempt to deal with continuously changing, often conflicting, spheres of values?

The designer must address individually each element that forms a part of what we refer to as a set of values. In the course of this discussion I will begin with the element of culture.

Culture

A discussion of Culture, with a capital "C", is quite frankly beyond my capacity and not necessary for the purpose of this discussion. It is only necessary for me to say that the would be designer must continuously be a "student of culture." For it is only through an understanding of the determinants of any cultural norm that any individual can decide whether to position himself within or without of that norm, to accept it or oppose it. The operative word here is "student," a term that implies a willingness to be open and to actively be engaged in the pursuit of new knowledge.

It is clear that the designer cannot control or anticipate the entire milieu of possible past or future experience that any individual may bring to bear upon the built environment in the form of his values. But it is imperative that the designer realize that both individually and collectively values can, and do, affect a large portion of those experiences which result from direct experience through perception. It is also possible, through studying culture as is suggested above, to anticipate a portion of an individual's beliefs.* Both experiential and cognitive formation of values must be identified, analyzed,

This is a result of being able to anticipate individual beliefs as a direct reflection or parallel of commonly held beliefs that exist within a specific culture.

and assessed by the designer before he can take an informed action.

In their attempt to consider disparate values, designers quite often suffer a major flaw. This flaw is especially troublesome when the past experiences or aspirations of those affected are substantially different from those of the designer. It is not the convergence of these often irreconcilable differences that is important or necessary, but rather an understanding and acknowledgement by the designer that they exist and need to be dealt with.

An example: two brothers are walking down a city street in a lower, or working class neighborhood. One is young, the other is a bit older. The neighborhood is not a slum but is run down in parts. The ethnic composition of the neighborhood is mixed. The two men grew up here, on the very same streets on which they are walking. One still lives in this neighborhood while the other, the older of the two, has moved away, living elsewhere in the city and working as an architect. They look upon the same scene, but do they see the same image? The architect might be struck by the vitality of the buildings' character and the street life that abounds. He draws upon his memories, fondly, to support this impression, while the younger brother, who still aspires to leave and to better his lot, sees only the noise, the clutter, the dirt, the oldness of the place. Both images are "real." Both images are in direct response to the same phys-

Designers often fall victim to the belief that amongst different individuals like stimulus, is followed by like perception, is recorded as like experience, is imaged in similar ways, and produces similar memory. In fact, they may not believe this at all, intellectually, but they still design and make design decisions as if they believed it to be so. Why? Because it provides them with a clear and understandable structure. Designers need to believe that their decisions are the result of, or a striving to portray, some universal truth, law, or absolutes. Designers sometimes have a tendency to become enamored of rules or doctrines, of any way in which they might feel they can structure the unstructured. They feel they must be able to prove that which they know to be true instead of just demonstrating the belief and allowing it to prove itself.

ical cues. But it is clear that the images are not alike. Can it be said that one is more valid than the other? It is the designer's responsibility to be aware that his is not the only reality that must be considered when taking any action to change our environment. For it is exactly that, our environment, not solely the designer's to do with what he pleases.

While the designer cannot be expected to deal with the entire range of past experience of every individual it is possible for him to be aware of and to understand the ways in which this experience is drawn upon. All experience, whether the result of perception or cognition, when recalled, is the result of an individual's memory as it is realized through the process of imaging. Memory and imaging are important concepts for the designer to understand. After all, it should be obvious that imaging is the designers tool. Through the creation of images and forms the designer can gain access to and call upon our memories to assist him in developing meaning. In many ways it is the designer's skill at playing the instrument of human memory that will allow him to design with meaning.

Memory

What is memory? It is easier to begin by describing what memory is not. The first notion to discard is that memory is primarily or literally reduplicative, or reproductive. Memory is much more a process of construction. A simplified view of

memory suggests that whenever any specific event occurs, some trace, or group of traces, is made and enters the brain, much as an ingredient is added to a recipe. These traces come together in various ways to form "schema."

"Schema" refers to an active (as opposed to stored or inactive) organization of past reactions or past experiences. Any particular response is possible only because it is related to other previously catalogued responses. These traces operate not as individual entities coming one after another, but rather as a mass. Determination by schemata is the most fundamental of all the ways we can be influenced by reactions and experiences of the past. All incoming impulses of a similar kind, or mode, combine to build an active organized setting, visual, auditory, olfactory, etc., at a relatively low level; those incoming impulses connected by interest, history, art, science, etc., are organized on a higher level. Condensation, elaboration, and invention, are common features of remembering, and these involve the mingling of material belonging originally to differing schemata.

Memory does not merely recall or reproduce something old from the past. Memory is a production of the interaction and interrelation of the living and active "schemata" of any given moment and all those that have gone before. The idea speaks to the mechanics of memory. One can understand the mechanics much

"...one can say that its character is one of association, a linking of immediate experience with memory. By this linking, memory gives immediate experience a profounder import, and in return immediate experience both renews (and adds to) memory and connects it to the present. Memory is thus seen as not merely a repository of tid-bits to be turned to at odd moments, but as an ever-present source of deep meaning."

Cited from thesis by:
William Q. Hubbard, "A System of Formal Analysis for Architectural Composition", p.189.

as one can understand that with a flute it is the air rushing by and through certain openings, at certain speeds, that cause the sounds to be made. But the drawing of music from a flute is not just a matter of its mechanics, nor is it so with memory.

Imaging

The act of imaging allows us to give form to this vast array of structured and floating "schemata" that we all carry around in our minds. To give structure and form to schemata is not the only purpose of imaging, but it is one of the primary purposes to which we put it.

In general, images are a device for picking bits out of schema, for increasing the variability in the reconstruction of past stimuli and situations, and for surmounting the chronology of presentation of these bits. Through the process of imaging we can abstract out to its setting something that took place years before, reinstate it with much, if not all, of its individuality unimpaired, glean the essence of the event, combine it with something that happened yesterday, and use them both to solve a problem which confronts us today.

A good deal has been written on the concept of image and imageability. How image formation takes place, the influence of the process on our everyday lives, how our image of place or object influences our decision making processes, our means of orientation, the way we learn, and the relation of imaging to

architecture and design, have all been topic for discussion. A knowledge, and hopefully understanding, of this work is, I feel, essential to the designer who is attempting to understand "meaning" and its implications to his field.

Much of the work that has been done in this area has grown out of the work that was started by Kevin Lynch with his book The Image of the City. Lynch has continued to deal with the subject imageability throughout his later work.* Donald Appleyard, a contemporary of Lynch, has also been a continuing contributor to the subject of imageability with a number of articles, research papers, and books. John Myer, who joined with Lynch and Appleyard to write A View from the Road made his most recent contribution to the subject of imageability in the paper he co-authored with his wife, "Patterns of Association" - Connections Between the Inner and Outer Landscape. Other contributors to the topic are Grady Clay in Close Up: How to Read the American City, Yi-Fu Tuan in Space and Place, and Stanford Anderson as editor and contributor to On Streets, to cite a few.

I will not attempt here to summarize these writings, as they deserve and demand a greater attention than is possible within this discussion. I would, however, ask the serious inquirer to become familiar with these works, if he has not already done so, as a pre-requisite for continuing his investigation into the topic of "meaning."*

Kevin Lynch:

What Time Is This Place?

A View from the Road

Managing the Sense of a Region

Growing Up in Cities

A Theory of Good City Form

Donald Appleyard:

"Notes on Urban Perception and Knowledge"

"Why Buildings are Known"

Planning a Plurist City

Livable Streets

Other important works that it is suggested the reader become familiar with are:

Cities by Lawrence Halprin

R.S.V.P. Cycles also by Halprin

Townscape by Gordon Cullen

Making the City Observable by

Richard Saul Wurman.

These represent only a start.

The Problem of Bias

Within the process of evaluation bias results due to the unequal weighting of differing and often conflicting values. We are all aware of the existence of racial bigotry, class distinctions and discrimination, religious schisms, power and its unjust exercise, and nationalism. These are all conditions which the designer must take into account, whether he be in agreement with them or not. It is also obvious that the designer is subject to the same biases within himself, and, he must attempt to view his own biases objectively.

In addition to what we might call "ordinary biases" there exist others that are less obvious, but which must be brought to the designer's attention. I would like to address two biases of this type which I feel have direct implications to the designer's role in shaping the environment, and the issue of meaning in the built environment. Both of these biases are a result of education and training.

Conflicting Values

The first of these biases deals with the sometimes spoken dichotomy between the values held by the designer and their resultant meanings and those held by the average lay person. The designer's values and meanings, shaped by virtue of his special training, are often so inbred as to be totally unintelligible to the uninitiated. Surely this schism can exist be-

tween the general population and any specialized sub-group. But, since it is often the designer who is responsible for the shape of the environment in which we all must live, he must be particularly aware of the extent of this bias, internal to his profession.

The designer must ask himself the question: are my values and goals significantly different from those of the people for whom I am designing? And, if so, in what way? Am I in fact designing for anyone but myself? It is only after asking, and then attempting to answer, these sorts of questions that the designer can make a conscious decision concerning their implications. Just as the reasons for designers to practice their craft vary, so to, this final decision will vary. But, it will be, as in my mind it must be, a considered response, one of intention rather than default.

Any attempt to address meaning must then certainly first address the relationship of the designer's (source) values to those of the lay person (client), since these may quite often vary. These differences carry with them implications of action and must be consciously regarded.

With this in mind, one might ask, if differences do exist, in general, between the way trained designers and laymen view the environment. There are some studies that would indicate that there exists substantial differences in certain areas.

In many cases the results of these studies are quite surprising. For example, in a thesis done at M.I.T. entitled "Meaning in the Environment as Constructed by Environmental Designers and Laymen" by Steven Deutsch it is suggested that:

In his investigation Deutsch utilized the repertory grid method. For an explanation of this technique and its use refer to the completed thesis as cited.

"either because of their training or because of certain common inherent traits, environmental designers organize their environmental cognitive systems differently than laymen... Designers tend to over simplify the range of attributes they consider important, and they do this along the lines of value judgements concerning environmental characteristics rather than along the lines of the characteristics themselves... they should be made aware of the possibility that their subjective generalizations run counter to the layman's more balanced, objective image of the environment."*

Osgood, Charles E.; Suci, George J.; Tannenbaum, Percy H.

The Measurement of Meaning

Although I have some doubts as to the effectiveness of this method for determining meaning, it does produce, on occasion, some interesting results. The problems with the method, as I see them, are with its ultimate reliance on language and the shortcomings associated with the method's inherent limited number of ways of viewing the environment. Subjects cannot use their own words in describing the environment and their experience of it, nor can they eliminate any grouping they might feel has no relevance. Even with this in mind it is still interesting to look at some of Hershberger's results as an indication of some commonly-held values.

The work done by Robert G. Hershberger should also be considered. Using the semantic differential method of Osgood,** Hershberger attempts to answer the question posed earlier: is there a close relationship of correspondence between the meanings architects intend for buildings and the meanings laymen attribute to them? His answer seems to be a qualified "no."

"The combination of significant and non-significant differences in opposite directions were more numerous to the point that it could be expected that approximately 30% of the time that when the architects would judge a building to be good, pleasing, beautiful, interesting, exciting, and unique; the non-architects would judge it to be bad, annoying, ugly, boring, calming, and common."

This work by Hershberger, and other similar studies,* seem to indicate that the potential certainly exists for this type of bias to affect our attempts as designers, to address the issue of "share meaning." In some ways the work calls into question the very concept of "shared meaning." It is my contention, however, that there do exist certain commonalities among us that can be drawn upon to aid designers in the process of investing our environment with meaning. Whether these commonalities stem from some deep biological origin that we all share, as Larry Halprin believes, or whether they are rooted in some Jungian archetype, or even if they originate from deep in the primitive reaches of the reptilian portion of our brain, is of no matter. Regardless of where the commonalities originate, it is up to us, as designers, to become aware of their influence and utilize those qualities, their "essence", to address the problem of putting meaning back into our built environment.

Organized Image Annihilation

The second of the two biases I wish to address is on that, I believe, is prevalent throughout the entire population as a result of our system of education in this country.

Throughout our educational system, especially in the early grades (while the child is in his most formative years), it is implied that the cognitive visual realm, the act of constructing and representing images, is secondary to the written

Judith Blau-- "A Framework of Meaning in Architecture" cited from Signs, Symbols, and Architecture by Broadbent, Bunt, and Jencks.

Charles Jencks - in postscript to "A semantic Analysis of Stirlings Olivetti Center Wing" cited from Signs, Symbols, and Architecture.

and verbal activity that we use. As children we are told that we must learn to write our ideas down in order to communicate. We are encouraged to represent our ideas not as images, but rather as a series of words, words, which at the time, we may not understand, or know how to use effectively. Images are much more natural, but in many cases are forbidden. And, beginning as children, when we do have occasion or are allowed to represent our ideas, concepts, and feelings visually, our teachers and parents generally criticize us as being frivolous and our images as being incorrect.

It is through this process, which continues and is reinforced as we grow, that we collectively learn that the visual, the aesthetic, is of a lesser importance than other, more "real", concerns. This belief is, of course, a culture bounded phenomenon and varies among different cultures. It is no accident that the people within our own culture that we regard as the possessors of a creative ability are usually those who have either somehow escaped the process I have described above, or who have consciously rebelled against it, and become "survivors." The process is pervasive, it is responsible, in part for the condition that we confront as designers of after worrying about the appearance and quality of the built environment, of thinking, believing, and acting as if it were important, we find that the rest of the population regards it as something that

is less than meritorious of their concern. This attitude is found to prevail up to, and perhaps past, the point of it threatening our very survival.

The fact that Frank Lloyd Wright grew up in an atmosphere supportive of his playing with Froebel blocks is as important, if not more so, as the fact of him doing so.*

Frank Lloyd Wright's creative ability to manipulate and form space has often been attributed to the fact that his childhood was spent playing with Froebel blocks.

Meaning

How then do we make the connection from perception, through evaluation, into meaning? It appears as though this connection happens in some combination of, or in any single one of three ways.

1. Conventional meaning - an agreement is made that one meaning shall be given to a perception (conventional here indicating conscious or unconscious agreement).
2. Associative meaning - as a result of previous experience, a meaning is connected to a perception by association (often through the use of metaphor or a similar device).
3. Spontaneous meaning - a meaning may be attached to a perception according to some natural relation (often connected to certain Gestalts).

Within the three systems devices may be employed to accomplish the transition, the most common device being the sign, the symbol, and the expression. The effects of these devices are often further expressed or strengthened through the use

"We experience and classify architecture roughly in terms of metaphors. At least laymen tend to do this before they go on to any deeper perception or use of a building. They say, 'it feels like Y', and 'reminds me of Z'; 'I like it, it makes me feel good', 'I never noticed it'. These crude metaphors and affective judgements are, as I have argued elsewhere, the primary average classifiers and the modern architect disregards them at his peril (Jencks, 1972).

But one can sympathize with him: they seem literary and vague, idiosyncratic and superficial - nothing he can control or take responsibility for. As Umberto Eco has suggested, architecture is often experienced inattentively, the way one listens to background music, and is used in aberrant ways (Eco, 1973), so why should the architect care about this most general and malleable level of meaning? It seem to me because this level is actually quite coherent and influential in the way people use buildings. These metaphors and connotations of form are socially shared subcodes which have a fair amount of stability in any one time or place. They guide a deeper reading of the architecture: its actual use, denotation and overall signification."

Charles Jencks
Architectural Association Quarterly,
September 1970.

of still other devices, such as metaphor or juxtaposition. * **

We should also consider the issues raised in debate over the division between primary and secondary meanings.

Primary meanings are those which the designer intended, while secondary meanings are all those affixed to the work that are other than those the designer intended.

Since the issues raised by this debate are dependent on an interpretation of the intention of the designer, are we to assume that we will always be in a position to adequately assess this intention? And, even if we are able to do so, does this in any way lessen or invalidate those meanings we derive that are other than those intended?

It is the designer's responsibility to realize that meanings, other than those he intended, will arise, and, it is he who must attempt to deal with these applied meanings through the manner in which he designs.

Personal Process of Linkage

"Isn't it strange how this castle changes as soon as one imagines that Hamlet lived here? As scientists we believe that a castle consists only of stones, and admire the way the architect put them together. The stones, the green roof with its patina, the wood carvings in the church, constitute the whole castle. None of this should be changed by the fact that Hamlet lived here, and yet it is changed completely. Suddenly the walls and the ramparts speak a quite different language. Suddenly the courtyard becomes an entire world, a dark corner reminds us of the darkness in the human soul, we hear Hamlet's 'To be or not to be.' Yet all we really know about Hamlet is that his name appears in a thirteenth century chronicle. No one can prove that he really lived, let alone that he lived here. But everyone knows the questions Shakespeare had him ask, the human depth he was made to reveal, and so he, too, had to be found a place on earth, here in Kronberg. And once we know that, Kronberg becomes quite a different castle for us."

"It is the unmapped, the unadmitted that we must cope with on our own. In all these shifty scenes, our survival depends on our ability to sense, and then to grasp, the environment's carrying capacity for existential meanings - meanings that only we can penetrate by participation in that scene, by our physical presence in, and movement through, it. Such scenes convey much; they imply even more."

"At the lake we stop and mingle affably with the small crowd of tourists holding cameras and children yelling, 'Don't go too close!' and see cars and campers with all different license plates, and see the Crater Lake with a feeling of 'Well, there it is,' just as the pictures show. I watch the other tourists, all of whom seem to have out-of-place looks too. I have no resentment at all this, just a feeling that it's all unreal and that the quality of the lake is smothered by the

Werner Heisenberg, Physics and Beyond: Encounters and Conversations, (New York: Harper Torchbook, 1972) p.51

Grady Clay, Close Up: How to Read the American City, (Prager, 1973) p.65

Yi Fu Tuan, Space and Place: The Perspective of Experience, (Univ. of Minnesota, 1977) pp. 146-147

fact that it's so pointed to. You point to something as having Quality and the Quality tends to go away. Quality is what you see out of the corner of your eye, and so I look at the lake below but feel the peculiar quality from the chill, almost frigid sunlight behind me, and the almost motionless wind."

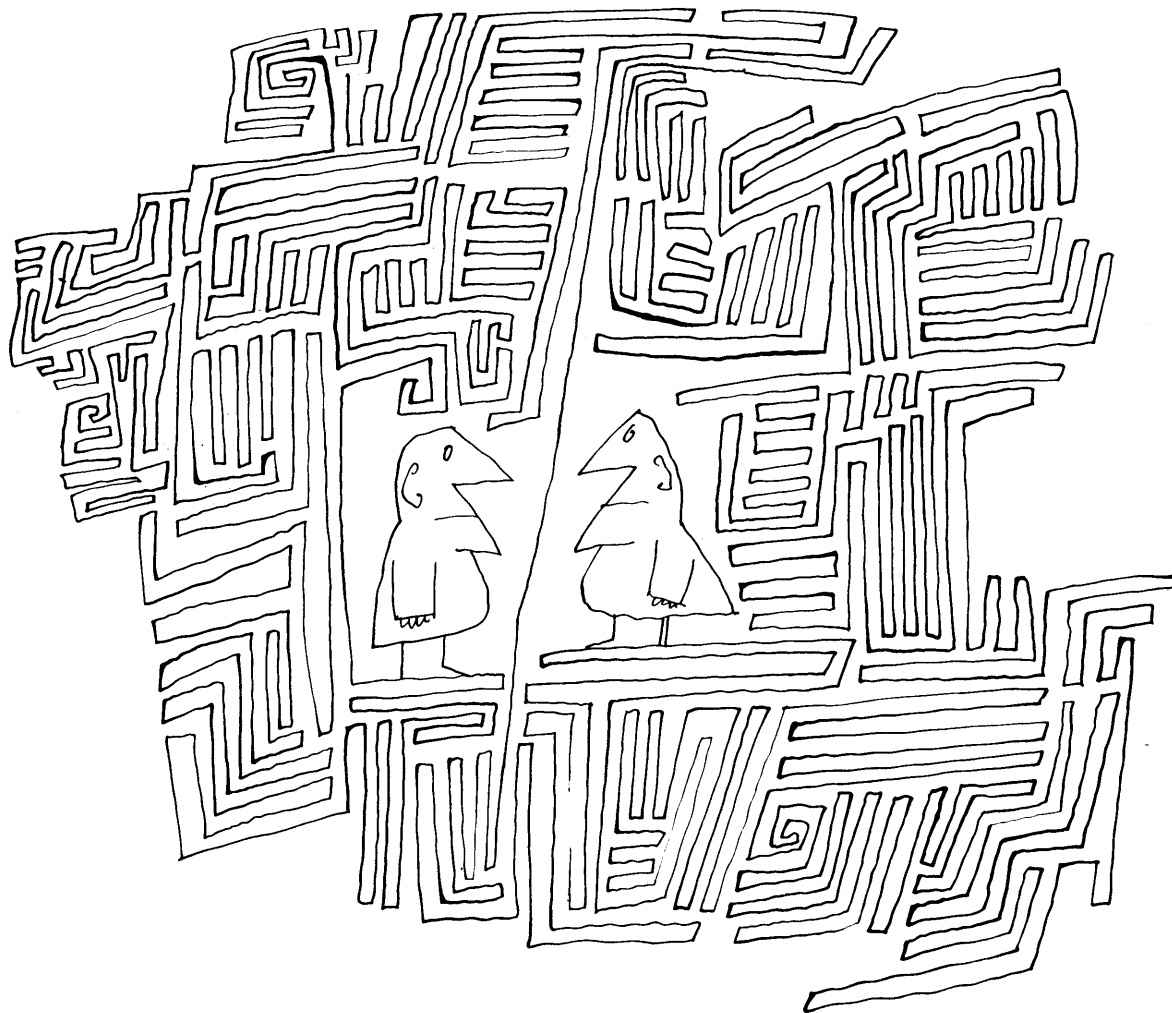
Stimuli, perception, physical condition, culture, experience, memory (as imaged), and expectations all combine to imbue "meaning" upon our artifacts and our environment. The process of forming meaning is not a linear one, but is rather, circular. Once a meaning or meanings are associated with a thing or event, that meaning becomes still another part of ones schemata. "Meaning" is not an end point, or product, of a process but rather the point at which the process has a final chance to recycle upon itself before suggesting action or resulting in an interim conclusion.

Meaning is at once simple and complex - simple in the sense of its very obviousness and its obvious ties to perceptions, values, and context, but complex in its pervasiveness of every aspect of our lives, the myriad of its manifestations, and the infinite combinatorial possibilities of its various contributing influences.

In general terms, meaning is simply our attempt to connect something given with something other than itself. We affix meaning as an attempt to imply a significance to a setting that goes beyond its descriptive character.

In the following section it is my intention to address the problem of the process that can give rise to meaning (within the confines of design), and not to address the question of what a particular meaning actually is.^{*}

Although an understanding of the process does not ensure that the designer will be an adequate interpreter of what people actually mean, when they say they want 'this' or they want 'that', it is hoped that such an understanding will encourage the designer to develop an attitude that will increase his potential for doing so. And, as each particular meaning is dependent on context, it is hoped that the designer will bring this new attitude, and a new awareness of a process, to bear on the problem at hand of interpretation.



The work of Hershberger, Appleyard, and the thesis by Deutsch, all cited earlier, to call attention to a few.

ATTEMPTS TO
FIND A PROCESS

While there have been some attempts to speak directly to the issue of what exactly the meaning of a particular place or piece of architecture is,^{*} the bulk of the current literature, both by designers and non-designers, deals more with the process by which meaning develops or evolves.

Some interesting work has been presented in theories that evolve around concepts of "gaming" and how its constructs relate to design and its meaning. Other literature examines design as a form of communication, with its meanings derivative of and subject to the rules implied by communication theories and language (as it is studied in linguistics).

But, with a few exceptions, most of the current material is grounded within the study of the science of semantics and its offshot, the study of semiotics.

The literature dealing with the subjects of linguistics, communications theory, and semiology^{**} as they relate to architecture, or the built environment, resembles, at present, an intellectual battleground. There are as many different points of view and interpretations as there are authors.

The one point on which all seem to agree is that semiology, the study of signs, does have important implications within the fields of design. The other commonly held belief is that it is through a structured process, one that semiology describes the structure of, that meaning is created or defined. This second belief is what makes semiology of interest to this discussion.

In his book *Intentions in Architecture*, Norberg-Schulz uses Charles Morris's conception to explain the way semiotics influences meaning.

"It is not necessary to be conscious of the rules to be able to use a symbol-system, but the rules represent the forms we have to employ to express ourselves in a meaningful way...The meaning of a sign is completely described by indicating its three semiotical aspects. The meaning, therefore, is not something which has to be 'added to' the semiotical description. Neither is it, as is often maintained, something purely private or subjective. By means of semiotic, 'meaning' can be studied objectively."

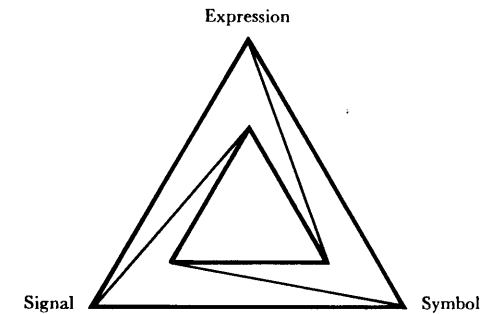
(in my view often too objectively)

Semiology

At its heart, semiology centers around a triadal principle. Although the vertex and sides of the triangle change in name, according to who is interpreting a particular theory and what point it is he is trying to make, I will offer my general description.

The overriding assumption is that everything that man perceives is meaningful and is thus a form of communication, even if only internal. Signs are seen as the first and most immediate tool of every sort of communication. Signs, then, speak to something that is not necessarily present, but can be. Signs speak in various ways. Take, for example, Charles Sander Peirce's main trichotomie^{*} on which he bases much of his idea regarding semiotics: his division of the sign into icon, index, and symbol.^{**} The crucial point about Peirce's index is that it has some physical relationship with its object, the meaning of which can be "read" without any cultural knowledge. Peirce states that a symbol (such as a word, a cross, or a whole church) actually has to be learned as meaning something within a particular cultural context, while an icon reminds us of its object by some complex sort of resemblance - ie. Venturi's poultry stand looks like a duck.

Other people take a different view of the concept of the sign. Our investigation should also consider Koenig's definition of a sign.^{***} Saussure divides the sign itself into two parts: the



Semiotic triangular relationship.

Collected papers of Charles Sander Peirce, 8 volumes (1974)
Harvard University Press, Cambridge, Massachusetts.

"Another approach, and one that would seem more promising, is that taken by Giovanni Klause Koenig in trying to

define the 'language of architecture'. Koenig goes back to Charles Morris's definition of sign: 'If anything, A, is a preparatory-stimulus which in the absence of stimulus objects initiating response-sequences of a certain behavior-family, then A is a sign.' And again 'If something, A, controls behavior towards a goal in a way similar to (but not necessarily identical with) the way something else, B, would control behavior with respect to that goal in a situation in which it were observed, the A is a sign.' "

Umberto Eco
 cited from Signs, Symbols, and Architecture, p.16



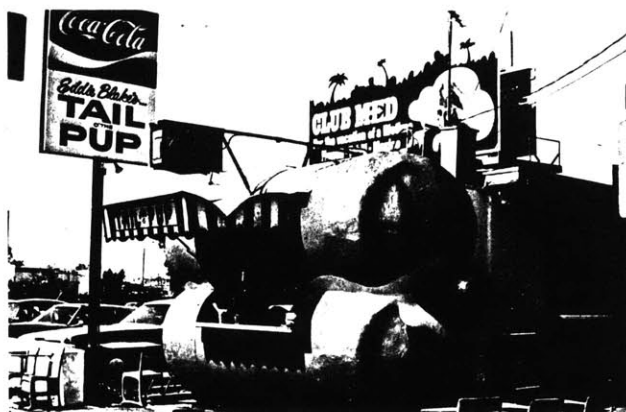
An icon is a sign which refers to the Object that it denotes by virtue of characters of its own which it possesses whether any such object actually exists or not.

A symbol is a sign which refers to the object that it denotes by virtue of a law, usually any association of general ideas, which operates to cause that symbol to be interpreted as referring to that object.

An index is a sign, or representation which refers to its object not so much because of any similarity of, or analogy with it, nor because it is associated with general characters which that object happens to possess, and because it is in dynamical (including spatial) connection, both with the individual object on the one hand and with the senses or memory of the person for whom it acts as a sign.

For a complete discussion, analysis, and interesting critique of these points refer to the discussion in: Chapter 2.5 "Building Design as an Iconic Sign System" - Geoffrey Broadbent

Signs, Symbols, and Architecture.



signifier, the pattern of marks on paper, sounds in the air, or even building forms by which the sign itself is made physically manifest, and the signified, concepts, ideas, thoughts which the signifier actually stand for.*

Others have suggested additional components within the sign, including the referent, the object to which the sign refers which may take living, inanimate, or rather more abstract forms.**

Currently, then, the preferred view is that signs are the vehicles which make meaning possible. Signs are observable and describeable apart from the meanings we attribute to them, at least at some stage of our investigation. Later on, in any investigation of a sign, we find that are variable, but determined by the codes in conformance with our reading of the sign vehicle.

Meaning, on the other hand, can be successive and is a function of the precise codes with which we read the signs. Within the areas of design, this aspect of meaning can have interesting implications.***

What then, in terms of semiotics, is meaning? Perhaps the best way to attempt to address this question would be to look at the work of one of its current disciples, Juan Bonta.

With regard to a designed form, Bonta posits the existence of three components of meaning: indicative, communicative, and expressive. He explains these three components in terms of

See Appendix #2, Broadbents' "Plain Mans Guide to Thory of Signs in Architecture", 1978.

Broadbent feels that a building (or place) may actually be any one of these three, Signifier, signified, or referent. "Any existing building obviously can be a feferent - a physical object which one can actually go and kick. But it can also be a signifier - signifying, according to where, when, and how it was built, say, belief in the Christian faith (cathedral), the power of bureaucracy (office slab), commitment to self-sufficiency (garden shed) and so on. But it can also be a signified - a set of architectural concepts or ideas, signified by words, drawings, photographs, models and so on. Indeed, some buildings, such as the Barcelona Pavilion now exist only as signifieds in this form."

Cited by Broadbent in the Introduction to Signs, Symbols, and Architecture.

In other words, the principle that form follows function might be restated: the form of the object must, besides making the function possible, denote that function clearly enough to make it practical as well as desirable, clearly enough to dispose one to the actions through which it would be fulfilled.

Take for example the case of a primitive man, who, could understand or was used to, stairs or ramps. He would clearly be at a loss when confronted with an elevator; the best intentions on the part of the designer would not result in making the thing clear to him. The designer may have had a conception of the push buttons, the graphic arrows indicating whether the elevator is about to go up or down, and the emphatic floor level indicators, but the primitive, even if he can guess the function, does not know that these forms are the 'key' to the function. He simply has no grasp of the code of the elevator.

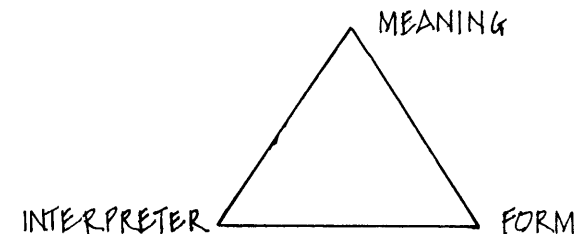
Then it follows that all the ingenuity of an architect or designer cannot make a new form functional without the support of existing processes of codification.

indicators, signals, and intentional indicators. Indicators are directly perceptible facts, through which it is possible to learn something about other indirectly perceptible facts. One thing that distinguishes Bonta's presentation of these points is that his is a relatively straightforward presentation by comparison to most other semiotic approaches to meaning.

Signals have form, meaning and interpreter, like indicators; and in addition they have an emitter. There is a considerable difference between indicators and signals. Indicators tend to show objective reality, matters of fact. On the other hand, signals communicate states of consciousness of the emitter. In the case of a signal someone knows something and is trying to transfer it.

Both in the reading of indicators and of signals there is a possibility of error: one may attribute a line of cars to an accident when it is in fact due to other causes or one can misread a police notice concerning an accident. But in the case of signals, there is in addition the possibility of deceit: it is possible that the police are lying, to make one believe that there has been an accident when in fact it was something else. In the case of indicators, the relationship between form and meaning is natural or factual; the meaning results from the form as the consequence of an act

An indicator is a directly perceptible fact, by means of which it is possible to learn something about other indirectly perceptible facts. For example: an obstruction in the road, a line of cars, and people running, are directly perceptible facts; the occurrence of the accident is not. Through the former we can learn something about the latter; consequently, they are indicators. At least two elements can be distinguished in this situation: the perceptible facts, which constitute the indicators, and the indirectly perceptible ones, which compose the meaning of the indicator. There is also the interpreter, which realizes that the indicator is referring to a meaning. The indicative relationship is thus characterized as a triadic one (form/meaning/interpreter).



Signals are a special class of indicators that fulfill two additional conditions: firstly, they must be deliberately used with the purpose of having an act of communication; secondly, they must be recognized by the interpreter as such as having been deliberately used to have a communicative act.

of analysis. On the other hand, the reading of signals always requires the knowledge of some conventions, the learning of a code.

Signals communicate, indicators indicate. Communication theory is concerned with the study of signals; indication theory with the study of indicators. Both are branches of the theory of meaning or signification.

The fact that something being an indicator or a signal does not depend on its nature as an object but on the role it plays within the significative process; on the relations that are established between its parts - form, meaning - and with the other elements of the process - emitter, interpreter. Objects taking part in more than one process of signification can be indicators and signals at the same time depending on their role.

There is a repertoire of conventionalized architectural forms which behave as signals, like words. Their reading demands the knowledge of a code. Codes can be implicit. Forms in this case do not give direct evidence of matters of fact; they remit to states of consciousness.

The third component of the meaning of designed form is situated halfway between indicative and communicative components - the intentional indicator.

An intentional indicator is deliberately produced; but its efficacy depends on the interpreter not recognizing it as

An intentional indicator is an indicator which fulfills the first of the conditions of definition of a signal, but not the second. In other words, it is an indicator deliberately used by someone to generate an act of communication, but which must not be recognized as such - as deliberately used for communicating - on the part of the interpreter.

such but considering it as natural. Such indicators pretend to reflect a matter of fact while they actually correspond to states of consciousness which are supposed not to be recognized as such.

In design these manipulations are not unusual. They occur each time an office is arranged to produce a certain impression on the visitor; or when a house, factory, or public building is designed in order to reflect a certain image of the client, whether individual or collective.

The examples may suggest that the use of intentional indicators in design is limited to the exhibition, or affectation, of a certain status, but this is not the case. In designing an object it is necessary to make sure that the user will recognize it, that he will read it as what it is. A corkscrew which nobody recognized would be a bad corkscrew however ingenious its mechanism were.

Indicators, intentional indicators, and signals are not three kinds of forms, but roles which a single form of meaning may perform in different combinations.

Bonta later differentiates between the idea of physical form and significant form, the later carrying the properties necessary for meaning. He also speaks about articulation and content, but the point I wish to emphasize is illustrated by his comments regarding form and meaning.

My attempt at addressing the study of semiology and its implications to architecture has here, necessarily, been cursory. In part this is also due to my present rudimentary understanding of the subject in its entirety. It is suggested that the following sources be consulted if one wishes to gain a more complete view of the state of the inquiry into this area to date:

Broadbent, Bunt, & Jencks, Signs, Symbols, and Architecture.

Broadbent, Bunt, & Llorens, Meaning and Behavior in the Built Environment.

Bonta, Architecture and its Interpretation.

Jencks, Baird, Meaning in Architecture.

Preziosi, The Semiotics of the Built Environment.

"Form is composed of features; meaning is composed of values."

Even though Bonta is using the term "values" to refer to the three components he has previously designated, he admits that values can also be classified according to other criteria. He prefers to stay within the confines of semiotics and cites form as a set of values.

It is my contention that at this point of the semiotic framework, or argument, factors (values) from outside of the semiotic frame of reference enter and begin to chip away at the internalized form of logic that supports the semiotic point of view. This is admitted by Umberto Eco, another writer on the subject, when he states:

"If for architecture, then, of for any other system of signs, we had to admit that the plane of content involved something that did not belong to the semiotic universe, we would be faced with a phenomenon confounding semiotics, or at any rate confounding all the notions we have put forward here and elsewhere, on semiotics."

This weakness, I feel, points to one of the chief problems with the semiotic approach to meaning as it confronts and deals within the discipline of design - that semiotics is hard pressed to provide evidence of its validity, outside of its own set of constraints and rules. A study based on semiotic principles is not able to accept valid input and operate with it, if, for example, that input exists and en-

ters from outside of its own set of binding rules.*

Semiotics does, however, speak to many of the issues and factors affecting "meaning" in a very intellectually rigorous way. This type of rigorous investigation can only help to define, and refine, the designer's conceptions of meaning and its structure.

From the study and application of semiotics to design, we can gain many interesting and useful concepts. One such concept is the existence of simultaneously existing planes of reference, or, planes of content.** This idea gives rise to implications that help to define a wider concept of meaning. Also of importance is the role that semiotics suggests is played by intention, and/or the perception of intention, with regard towards meaning.

Perhaps the science of semiology is forever destined to speak only to portions of the question of "meaning." For as Bonta states at the very end of his recent book on the subject:

"Architects are deluding themselves if they believe that they are addressing submissive audiences, eager to communicate; that their public wants by all means to understand (even to decipher, if necessary) the meaning of architecture as seen by the designer. Nothing could be further from the truth. What people want is to see their own meanings in the environment - with their own systems of values, from their own frames of reference, shaped by the expressive systems that they share with their community but not necessarily with the designer. And this is exactly what they do, whether designers like it or not."

Another complaint made against semiologists is that while their metaphors, clearly, give us new ways of describing architecture and perhaps of understanding it, their descriptions, finally, are simply new artifacts, to be laid side by side with the buildings they describe. They do not change those buildings, nor do they tell us anything specific about the design of new ones. That is the complaint against structuralism generally - that it provides descriptive tools of an exceedingly interesting kind, but is in no way prescriptive of what one should do next.

This suggests that there exists within us conflicting schemata and that we are able to utilize these, through a process of internally organizing them on separate planes of reference. We can then suffle about these "planes" in our minds in whatever manner the context in which we find ourselves dictates.

"Meaning in the environment is inescapable, even for those who would deny or deplore it. Everything that can be seen or thought about takes on a meaning, or position within a signifying system, even the recurrent attempts to escape from this omnipresent signification. 'All is meaningful', even Nihilism, and, what is worse, semiologists have staked out this 'all' as their proper territory: semiology, the theory of signs, the theory of the way anything can take on meaning. With impeccable logic, the logic of imperialism and cannibalism semiologists have swallowed their ancestors - linguistics, psychology - then literary criticism, anthropology, Little Red Riding Hood, wrestling matches, the brain of Einstein, all of culture and finally all of nature (the codes of planetary rotation, the genetic code, etc.). Always finding similar divisions wherever they look - signifiers/signifieds, metaphor/metonymy - and invariably finding them in pairs, they ultimately get even with the ever present richness of meaning in the universe by making it quite unpalatable and boring. Or if not boring, then trivial or endlessly complex. Such is the fate of semiology, or semiotics as it is now officially called, in our time."

Charles Jencks
 "Introduction to Section 1"
Signs, Symbols, and Architecture

Perhaps we need to be aware of the contributions that semiology can make to our understand of "meaning" and remain consistently informed as to the state of the investigation. But, as Charles Jencks suggests in his appraisal, there are perhaps other aspects of meaning that the semiologists cannot hope to "let us in on." Aspects of meaning for which we need to seek the answers elsewhere.*

The Designer's Prediliction To Facts

The study of semiotics speaks, I think, to a fundamental desire (perhaps problem) of designers: a need to have what amounts to a scientific reason for what it is they do. At the same time designers want to keep their activity at such a level of obscurity that it is perceived by the layman as almost mystical in quality and effect.*

When presented with a science such as semiotics, designers are faced with a choice. They must decide whether their approach is to be fundamentally rationalistic, taking innate ideas as the basis for logically developed, self consistent theories, or, empirical, holding that everything we know is based on past experience, acquired through perception.

It is my feeling that as in life, both views, in moderation, are what is called for. For while it is clear that certain things are "decipherable", that it is that our understanding of those things can be well served by logically analyzing the component pieces to gain knowledge of the whole, it is just as clear that other things are not so "decipherable." Certain things must be understood intact, as a whole, if they are to be understood at all.**

To me, this second idea suggests that in addition to the "scientific" approach that is offered through the study of semiology and sciences of its kind, it is also important for

I believe this attitude on the part of the designer is the result of the combination of the designer's ego with his need to feel secure, and supported, in his decisions.

This is the conflict which serves as part of the bases for the battle between the behaviorist like Skinner and the phenomenologists like Chomsky.

us to look to other places for the "facts" about us, our relationship to our environment, and the meaning that evolves through that relationship.

Alternatives

Where else do we look? And how, if not with a scientific inquiry, do we gather data? Are facts necessary? Do we rely, finally, on intuition at least in part? I am inclined to say there is a certain amount, or kind, of knowledge that must be called upon even though it is unproven - intuition, if it needs a name. After all, what is intuition but a belief in the rightness, or correctness, of a thing, or some idea, without the support of "factual" proof? If scientific history has taught us nothing else, it has at least taught us that just because an idea is able to be proven "factually", it does not make it necessarily correct.

Perhaps a clue can be taken from the mystical writer Alan Watts. In his book The Book: On the Taboo Against Knowing Who You are, he writes about the notion...

"that each individual ego is separate (in space) and finite (in time) and is something different from the universe around him is one of the grand hoaxes of Western thought. Although virtually impossible for most of us nonmystics to grasp in more than a superficial way, this knowledge of our indivisibility from the environment is buried deep within the collective unconscious and becomes manifest symbolically (often without our recognizing it) in fantasies, flashes of intuition, dreams,

poems, paintings, and literature."

I have long been a believer of the existence of a collective unconscious. I believe that much of what we are now experiencing as an absence of meaning in our built environment has occurred through a disinvestment of the manifestations of this collective unconsciousness from the built world in which we live.

The work of psychologist Carl Jung supports my opinion. In "The House as Symbol of Self," Clare Cooper has described Jung's contribution nicely. She writes:

"Three of the most significant contributions of Carl Jung to the understanding of the human psyche are the concepts of the collective unconscious, the archetype, and the symbol. Sigmund Freud postulated an individual unconscious in which are deposited the suppressed and repressed memories of infancy and childhood. Theoretically, the psyche keeps these memories in storage until they are reawakened into consciousness by the medium of the dream, or its waking equivalent, free association. Initially embracing Freud's theories, Jung became increasingly dissatisfied as his studies of persistent motifs in his patients' dreams and fantasies, and in primitive mythology and folk tales, revealed what seemed to be universal patterns which could not be accounted for solely by the theory of an individual unconscious. He began to postulate the theory of an individual unconscious plus a universal or collective unconscious linking man to his primitive past, and in which are deposited certain basic and timeless nodes of psychic energy, which he termed archetypes.

Jolande Jacobi has termed the archetype 'a profound riddle surpassing our rational comprehension.' It precedes all conscious

experience and therefore cannot be fully explained through conscious thought processes. Perhaps one of the simplest analogies is that offered by Jacobi of a kind of 'psychic mesh' with nodal points within the unconscious, a structure which somehow has shaped and organized the myriad contents of the psyche into potential images, emotions, ideas, and patterns of behavior. The archetype can only provide a potential or possibility of representation in the conscious mind, for as soon as we encounter it through dreams, fantasies, or rational thought, the archetype, becomes clothed in images of the concrete world and is no longer an archetype: it is an archetypal image or symbol. Jacobi has written:

'Man's need to understand the world and his experience in it symbolically as well as realistically may be noted early in the lives of many children. The symbolic imaginative view of the world is just as organic a part of the child's life as the view transmitted by the sense organs. It represents a natural and spontaneous striving which adds to man's biological bond a parallel and equivalent psychic bond, thus enriching life by another dimension that makes man what he is. It is the root of all creative activity...'

If we can think of the archetype as a node of psychic energy within the unconscious, then the symbol is the medium by which it becomes manifest in the here and now of space and time. Thus a symbol, although it has objective visible reality, always has behind it a hidden, profound, and only partly intelligible meaning which represents its roots in the archetype."

Quote taken from
Clare Cooper, "The House as Symbol of Self", Designing for Human Behavior, 1974 pp.130-131

internal quote cited from:
Jolande Jacobi, Complex, Archetype, Symbol in the Psychology of C.G.Jung, (New York: Pantheon Books, 1957)

The ideas offered by Jung suggest that there are aspects, of our symbols that the science of semiology is not likely to explain. If we are to realize the importance of these aspects, we will have to infer the essence of these unexplained portions from other sources, in other ways. Can this then be

the role of intuition.*

Where, then, does this leave the designer? Is there a way to structure these various parts of meaning into an understanding of the whole which is not only descriptive (how), but also prescriptive (how to)? I would suggest that the most that one could hope to accomplish would be to influence an attitude,** as I have attempted to do in describing these parts.

Just as I have described the parts that I feel are important to the process of investing our environment with meaning, in the next portion I will attempt to address the structure of this process by offering my own view as to how it is constructed.

In the field of man's relationship with his environment, the type of approach which might be termed intuitive speculation seems to have been lost in a world devoted to the supposedly more scientific approach of objective analysis. As Alan Watts has speculated, this emphasis on the so-called objective may indeed be a sickness of Western man, for it enables him to retain his belief in the separateness of the ego from all that surrounds it.

Allow yourself to be open to the consideration of relationships other than those that can be proved or disproved by scientific method, for it may well be in these that a deeper truth lies.

Perhaps no one has stated it more eloquently than Watts in his book Nature, Man and Woman:

'The laws and hypothesis of science are not so much discoveries as instruments, like knives and hammers, for bending nature to ones will. So there is a type of personality which approaches the world with an entire armory of sharp and hard instruments, by means of which it slices and sorts the universe into precise and sterile categories which will not interfere with one's peace of mind.

There is a place in life for a sharp knife, but there is a still more important place for other kinds of contact with the world. Man is not to be an intellectual porcupine, meeting his environment with a surface of spikes. Man meets the world outside with a soft skin, with a delicate eyeball and eardrum and finds communion with it through a warm melting, vaguely defined, and caressing touch whereby the world

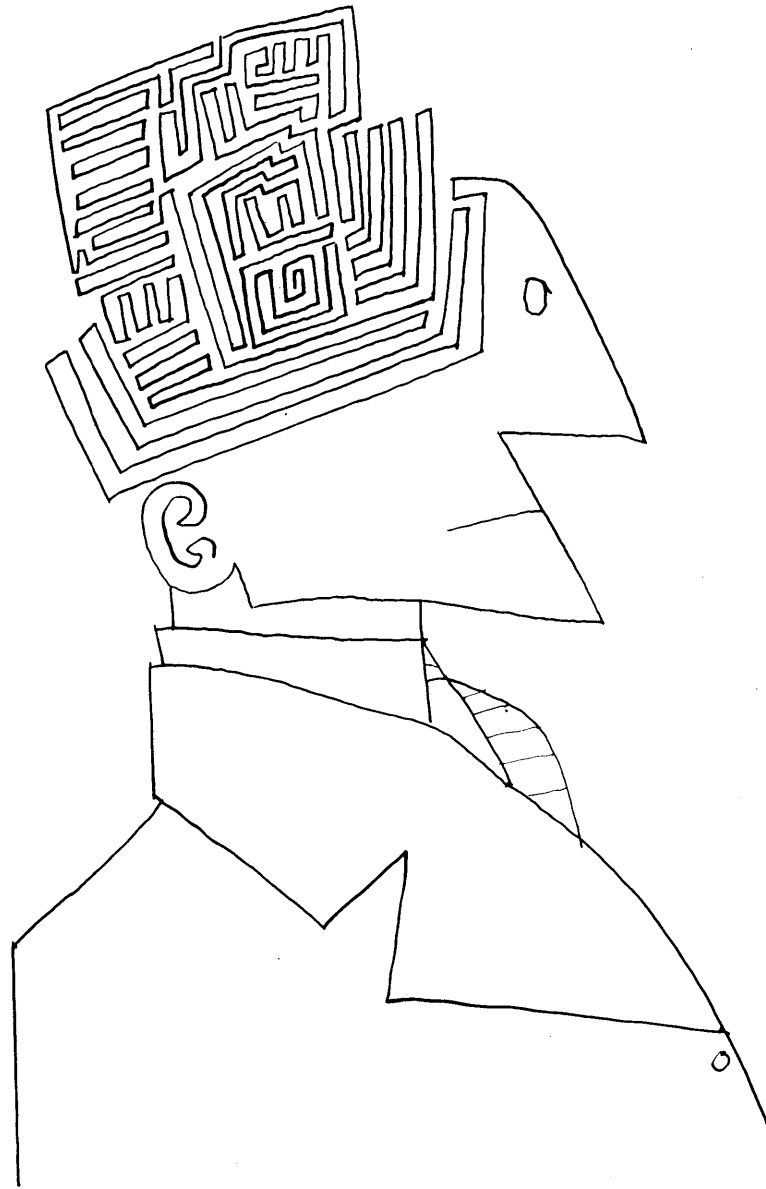
is not set at a distance like an enemy to be shot, but embraced to become one flesh, like a beloved wife....Hence the importance of opinion, or instruments of the mind, which are vague, misty, and melting rather than clear-cut. They provide possibilities of communication, of actual contact and relationships with nature more intimate than anything to be found by preserving at all costs the "distance of objectivity." As Chinese and Japanese which are best viewed through half-closed eyes, mountains which are most profound when the horizon is lost, and they are merged with the sky.'

Quote taken from:

Alan Watts, Nature, Man, and Woman
(New York, Random House, Vintage
Books, 1970) pp. 80-81

To influence an "attitude", for me, seems more effective than to postulate an "absolute", in the form of a theory. After all, my inquiry into meaning thus far has suggested that there are few, if any, absolutes, and that it is more effective to address the many potentials of a thing than it is to proclaim and raise one of these to the level of "truth" at the expense of all the others. Therefore, by suggesting and speaking to an attitude it is hoped, that this attitude when adopted, will affect the various potentials of the designers being exposed to it.

At this stage the discussion takes the form not of an argument but rather of a supported suggestion (perhaps on its way to becoming an argument).



A PROCESS HOW MEANING EVOLVES

It should be noted that by intention I am speaking of the question one asks of why a particular form is as it is, and not the question of why it was the designer chose to make "it" that way. I assume a stance which indicates that there exists no single correct reading, one that would be portrayed by the designer's intentions. I feel this position is a closer approximation of the experience between object and public, and must be understood and taken into account by the designer when he engages in the activity of placing any product of his intention into our environment.

To begin, I wish to abstract from the science of semiology the two concepts which, for me, have the greatest potential for suggesting an operational structure that contributes to the formulation of meaning. These are first the idea of simultaneous existing planes of reference and second, the relation of intention to real physical form.

The first, is important in that it is a conceptual reflection of the process by which we form schemata and so it lies at the root of how we view the world. The second speaks to the relationship that is particular and always implied between the creator of an artifact (sender, designer) and the user (receiver, public). This relationship often develops around the concept of intention.*

Intention

It was at the outset my intention to describe a process by which we invest the build environment with meaning. At this point, it has become obvious that "we" is too vague a term. As is obvious from the previous discussion of bias, "we", the designers, are not the same as "we", the public, when it comes to the discussion of how "we" invest a place or thing with meaning. This is exactly the schism that must be addressed when dealing with the idea of intention.

I am interested in focusing on intentions as they are per-

ceived by the ordinary person. How lay people perceive the designed environment is of particular interest to me because whether "we", the designers, like it or not, it is a world of popular perception in which we find our work being placed, used, and evaluated and to which we are bound to serve.

This idea of intention was addressed very well by William Q. Hubbard in a thesis done at M.I.T. entitled, "A System of Formal Analysis for Architectural Composition." In it he says:

"This may sound trivially obvious, but a crucial point turns on the nature of the world's "reacting;" for, except on the rarest of occasions, the architect and the public never come face to face in the roles of building-maker and building-user; in a real sense, the only way an architect (qua architect) can act upon the world is through his building; likewise, the only thing to which the viewer can react is the building. Any "reaction" therefore must be of a specific, almost metaphorical kind, What I want to postulate here is the idea that this special kind of reaction occurs whenever a viewer has thoughts as to why a form is a certain way - that, is, when he looks at a form as an intentional creation."*

cited from Hubbard's thesis, pp.124-125

Although I believe that Hubbard overemphasizes the extent of the role of this intention with regard to what he calls "complicity", there are many other points on which he and I are in agreement.

Many of these shared opinions grow out of the ideas first presented by Stanford Anderson regarding what he calls the con-

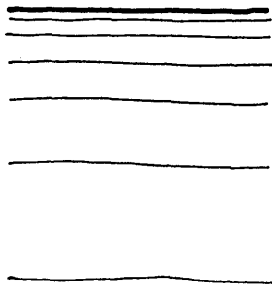
Potential Environment - Physical environment, but holding in attention that the physical environment is an arena for possible human associations.

Affective Environment - That version of the potential environment that is manifestly or implicitly adopted by users; the societal conception of the man-made environment.

Latent Environment - Those aspects of the potential environment that are not assimilated by society. "Latency" in the environment allows for societal change without physical change. Latency can be increased (or decreased) by physical change. Its availability and potential significance for society can be researched and communicated to society.

Definition of terms according to Stanford Anderson as presented in his working paper Street Phases 1.

Given a spatial field. . .

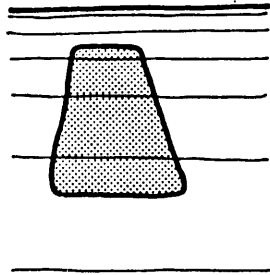


concept of "loose fit" and the "potential, affective, and latent environments."* One such idea described by Hubbard as the "enactive use of space", suggests that people, if provided with some overall articulated structure, will selectively invoke changes in the way they perceive the environment that enable them to choose, for themselves, the parts of the environment they need in order to carry on with their activities. If the designer accepts this concept he is then freed from having to anticipate behavior and match it with a single use form. Instead, the designer needs to supply sufficient parts, or cues, to allow a transformation to occur, while still indicating through articulation (structure in Hubbards terms) his own preferences and ideas about what should take place in the space. The designer must provide cues, but the designer's preferences must not be so dominantly articulated that they exclude all other notions about what might take place.

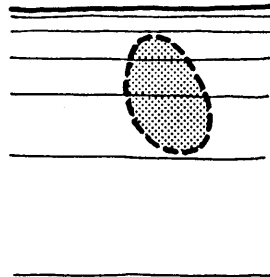
Multiplicity

We are confronted then by the necessity of multiplicity. The concept of multiplicity suggests that the designer understand that the interpretation, and therefore meaning, of any single configuration of form is subject to a multiplicity of explanations according to the experience of a particular time. If a designer accepts the idea of multiple interpretations, he must also accept certain imperatives for the design

One can imagine a well-bounded "space where I sleep;"

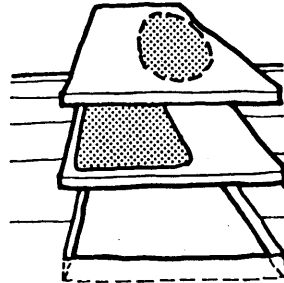


one can also imagine a less well-bounded but nevertheless defined "space where I read."



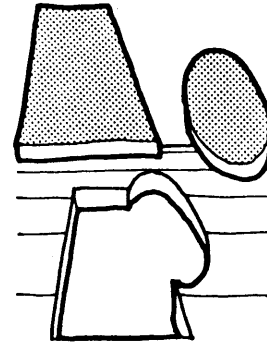
Illustrations and text from the thesis by William Q. Hubbard.

These contradictions-for-the-analyst can be resolved in a way that is still true to the experience of the user by a diagram such as this:

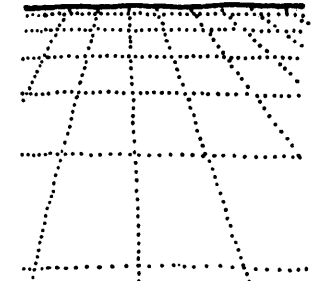


The viewer might say: "At times the space where I read exists in my bedroom, and at other times the space where I sleep exists in my bedroom."

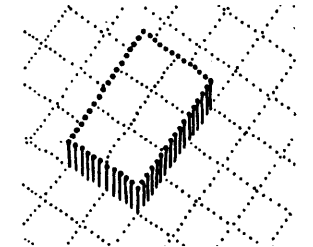
"The bedroom" thus is the encompassing schema: it is the name given to the set of significant characteristics which all the individual imagined spaces share. And in this way the two spaces that "exist" apart in time can be related to each other by the fact that both have their "existence" within the same space-- and what is more, a space that "is present" even when the two imagined spaces are not.



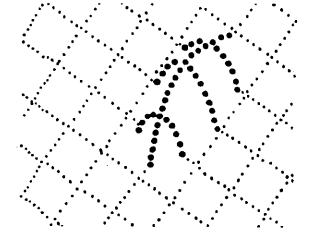
But note that each of these spaces is summoned into existence only when imagined: they are not conceptualized as "always present," as if each were a cubicle to which one would go when he wanted to perform the specific activity assigned to that cubicle. The user thus would not normally form (for his orientation) a "mental map" of the imagined spaces, for this would involve having to imagine as existing simultaneously all those spaces that "exist" only at separate moments in time. The problem of "jigsaw fit" thus arises only in the artificial situations, such as program analysis, when one does try to map time-bound activities into the single space of a diagram: then overlaps do occur, becoming contradictory.



Given an environment articulated in a pattern like this, one could conceptualize two types of spaces.



The conceptualization here "notices" the edges of the imagined space; one could thus locate the space within the pattern by reference to the position of its edges within the pattern.

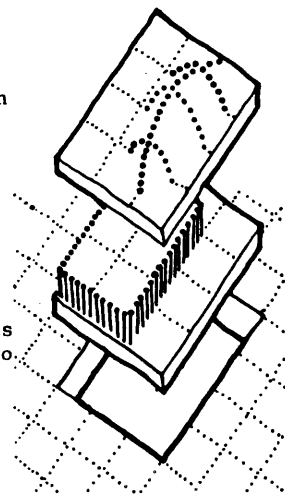


This type of conceptualization attends to a "vital center," ignoring, for the time, the

pattern of articulations. Thus by being optional the pattern does not limit or inhibit this type of space-imagining, but at the same time, by virtue of their having a perceptible pattern, those articulations falling within the imagined space allow one always to be able to locate that space by reference to its position in the pattern.

This "larger" space might be the product of viewing the spatial field "objectively," that is, detaching one's self from the activities that go on there and attending to spatial cues as no more than guides to an understanding of the space. The frequent result of this detached viewing is that one notices parts of the environment not recognized in daily activities. The ensuing "encompassing" space thus includes all of the everyday spaces and "more."

For a complete discussion of Hubbard's ideas leading to his concept of complicity read the portion of his thesis entitled "The Second Presentation". pp.118-151
Hubbard first defined complicity on p.140.



of form that the idea carries.

It is quite often the case that the ordinary person has no need to invoke any particular order, and simply uses a thing, or place without consideration to any of these issues. This single purposed use of space needs to be understood as well, and taken into account when defining a process. As Hubbard writes:

"In contrast to the aggressiveness of much of modern architecture, these ideals (multiple suggestiveness and intentional distortion) describe an architecture that does not force the viewer, willing or not, to confront its vision of reality, but rather accords the viewer the option of viewing it - and rewarding the willing viewer with a richly-organized repertoire of parts, offered up in such a way that he can not only use as many of them as he wishes and draw from them whatever meaning he can; but he can also choose to ignore them and not use them at all...multiple suggestiveness assures that there can be no single "correct" reading to which the contemplative viewer would be limited."

Hubbard portrays his analytical system as having elastic boundries. The limit of these boundries in one direction being the act of reading intention, in where it is not deserved (fatousness). In the other direction the limit consists of ignoring intentional connections where they are justified (exploitation). These ideas, as well as Hubbard's concept of complicity and its rewards are not as pertinent to this discussion as is his notion that a designer's conception is much

like an aphorism. It is in his description of this process of conception that I would suggest we find a parallel to the process of our synthesizing meaning. Hubbard sees the aphorism as an insight that takes the parts of a situation and "makes them fall into place" - the "aha!" reaction. A conception evolves that reveals a previously unseen order into which the individual parts can be fit.

The Contribution of Learning

The parts of meaning I have already tried to describe. Meaning begins as stimuli, and, with few exceptions, continues to take shape through the process of learning. Learning can be described as the part of the process in which we take the stimuli we are receiving, subject them to all those influences described as operating within evaluation, and then note the manner in which what is being presented conforms to, or departs from, the notions held within our already existing schemata. When a deviation is perceived one focuses on previously unseen characteristics (a piece of new knowledge) which, then, become part of a schemata. Learning, therefore, can be said to take place through an iterative process in which one modifies his understanding in accordance with newly received, previously unseen, characteristics or information. This newly acquired information in turn modifies ones schemata accordingly. This process

The study of sport, or games, offers an insight into the relationship we form with rules. An interesting discussion about 'why' and 'how' this relationship is important can be found in:

Complicity and Conviction: Steps Toward an Architecture of Convention.
William Q. Hubbard, (MIT Press, 1980)
pp.50-66

It is the designer's role to act as organizer of these physical cues. It is clear that the designer also needs to have an understanding of the logic with which these physical cues are said to be governed, ie. semiotics. However, in my opinion, it is more important for the designer to have an understanding of how the content of the various

models the idea of learning/knowledge from which meaning evolves. Sometimes meaning will evolve directly, and, other times, it will not. A meaning is often taught to us as an inseparable part of a bit of knowledge and is therefore directly tied to it. This linkage is not easily severed.

These often conflicting ideas and pieces of information, the total of our schemata, are able to exist simultaneously because the bits are ordered and grouped on many seperate planes of reference, the content of which exists as memory, through images and language. We have the power to evoke (sometimes voluntarily and sometimes through conditioning or instinct) whichever of these planes of reference (or schemata) we are going to bring to bear upon any other plane (or part thereof), or upon any incoming information. It is therefore my belief that the study of semiotics deals with the cues that suggest to us which of these referential planes to evoke. It is not only the relation of these cues, but rather the content of the planes called upon, and their integration that determine "meaning."* The need to cause this integration to occur - in fact, the need for us to give meaning, - is, in my opinion, the result of a biologically based survival mechanism which compels us to attempt to order, or find an existing order in everything we confront. And, I suggest, all this activity takes place in much the same

NIGHTHAWK POSTCARDS

there's a blurr drizzle down the plateglass,
 as a neon swizzle stick stirrin' up the sultry night air
 ans a yellow biscuit of a buttery cue ball moon
 rolin' maverick across an obsidian sky
 as the busses go groanin' and wheezin'
 down on the corner I'm freezin';
 on a restless boulevard at a midnight road
 I'm cross town from EASY STREET
 with the tight knots of moviegoers and out of towners
 on the stroll
 and the buildings towering high above
 lit like dominoes or black dice...

It was just about that time that the sun
 came crawlin' yellow out a manhole
 at the foot of 23rd street
 and a dracula moon in a black disguise
 was making its way back to it
 pre-paid room at the St. Moritz Hotel
 and the El train came tumbling
 across the trestles and it sounded
 like the ghost of Gene Krupa
 with an overhead cam and glasspacks
 and the whispering brushes of wet radials
 on wet pavement and there's a
 traffic jam session on Belmont tonight...

and the impending squint of
 first light, that lurked behind
 a weeping marquee in downtown Putnam
 and would be pullin' up any minute now
 just like a bastard amber
 Velveeta yellow cab on a rainy corner
 and be blowin' its horn, in every window
 in town.

Tom Waits

(excerpted from the album nighthawks at the diner)

planes of reference (or schemata) are established. After all, it is the content of these planes that we should be attempting to tap into. This understanding will then suggest vehicles, possibly heretofore untapped, through which we can bring each individuals past to the aid of his present. I believe that the fields of literature, poetry, music, and even sports can be seen as valid places for the designer to search for clues regarding the content of these planes of reference. When viewed as potentially new sources these areas provide the designer with insights into the human experience, and its internal structure, that are difficult to achieve "scientifically".

Poetry or song lyrics can offer a unique representation of human feeling, emotion, perception, and knowledge with regard to our place in the environment. These speak to the content of our schemata in a fashion that in some ways simulates the associative process by which the content evolved.

YOUNG BLOOD

Take a walk around midnight in the City
 Young Blood is hiding there somewhere
 If your looking for something to do
 There's always something happening there...

"They say this city will make you dirty
 But you look alright
 You feel real pretty when he's holding
 you tight"
 City will make you mean
 But that's the make-up on your face
 Love will wash you clean in the
 night's disgrace

Find a block where your people can
 find you
 keep a third eye watching behind you
 You never know when you're making
 a memory
 They will wish they were here together
 again, someday

Rickie Lee Jones
 (excerpted from the album RICKIE LEE JONES)

They paved paradise
 And put up a parking lot
 With a pink hotel, a boutique
 And a swinging hot spot
 Don't it always seem to go
 The you don't know what you've got
 Till it's gone
 They paved paradise
 And put up a parking lot.

Joni Mitchell
 (excerpted from the album Ladies of the Canyon)

*That pencil in your pocket's
 just too damn big to use
 and though it makes you look "professional"
 it just gives me the blues,
 you see i remember way back when,
 when your life was less precise,
 before you became an "expertise"
 and began giving out advice,
 advice about like how to live, what is wrong,
 and what is right,
 i remember when you couldn't tell
 and somehow -
 that was nice.
 Yes, that pencil you carry round with you is just the crutch you need,
 and just by its sheer weight - alone
 it helps you to succeed,
 you think you keep it moving
 and in some way perhaps you do
 but instead of moving it
 i'm afraid
 it's likely moving you.*

way as Hubbard describes the formation of the aphoristic design conception; as "An insight that takes the parts of the situation and 'makes them fall into place', a conception that reveals a previously unseen order into which the individual parts can be fit."

Hubbard is quite close to describing the process I have suggested here when he describes his idea of the implications, if one considers the architect's design conception to be like an aphorism.

"first of all, it is the delightful nature of an aphorism that one can never pin down precisely what it means because it can be interpreted in so many ways. But this is precisely the power of aphorisms and the reason for their durability; for although the interpretations they suggest are different and sometimes even contradictory, somehow when brought together in the mind they reveal a kind of synthesis, a larger insight than seen before. The process might be described as a kind of synergy of interpretation: by suggesting a multiplicity of meanings, the aphorism might be said to force the mind to juggle the various notions until something clicks and a new idea emerges that reconciles then all. The aphorism thus comes to "mean" more than just the sum of its individual interpretations."*

Seen in this light, "meaning" is not a thing in and of itself; it comprises specified sets of RELATIONSHIPS that exist both within and outside of a particular system.

The idea that meaning is dependent on a set of relationships suggests for the architect or designer who seeks to suggest

The viewer then interprets that pattern and in so doing experiences the aphoristic insight: or, in Foucault's terms, he relates and compares that pattern with other remembered patterns, the configuration of these connections being a function of the viewer's experiences, but the nature of each connection constituting one of the insight's many layers of meaning.

Cited from Hubbard's thesis.

Many of the Post-Modernists approach a dependent situation in that it is impossible to appreciate the suggested references, and therefore the implied meanings, because they are (1) singularly directed to a more or less correct response and/or (2) they are undecipherable unless one knows the "code" in which they are given - and this ability is usually only acquired as a result of special training or education.

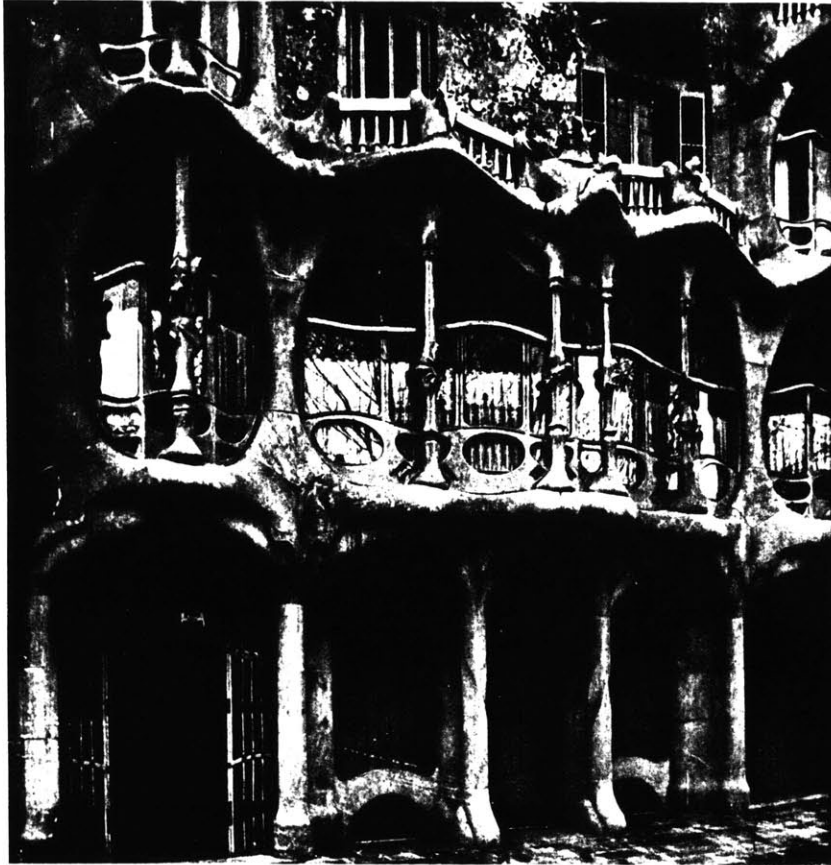
"The designer's preeminent role is to articulate our environment, not only so we can comprehend it literally, but also so we can find it psychologically nourishing, imagine possibilities we hadn't dreamed of before."

In this sense the overall message, or symbol of the Casa Batllo is truly extraordinary; it articulates meanings which are much more profound than the surface metaphors of which it is composed. For a long time I puzzled over the meanings of the roof dragon - that sleeping monster sprawled out at the top who looks down on the passersby with one eye, lazily, half open. The ceramic tiles of its tail shade slowly from the golden orange on the left to blue green on the right. Gaudi was a very strong Christian and he advertised the fact with the cross and initials of the Holy Family encrusted on the cylinder (Gaudi made use of written signs un-

multiple layers of meaning that it is imperative he not lock himself into a design conception that is dependent upon any singular "code" or an insistence upon an single "correct" set of formal relations.*

The concept of multiple suggestiveness holds important implications for designers, as it is the source of the lyricism of a building or place, and it is through our attention to this concept that our built environment may continue to yield new interpretations.**





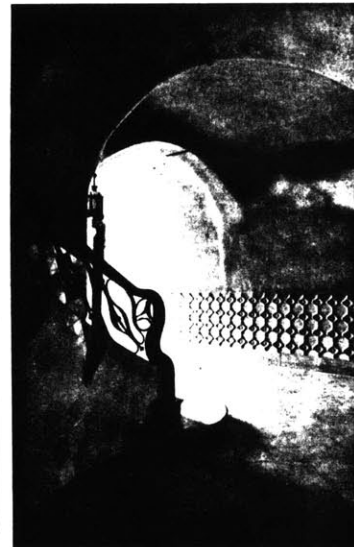
32 Casa Batlló, Salon



34 Casa Batlló, Dining room



37 Casa Batlló, Window above



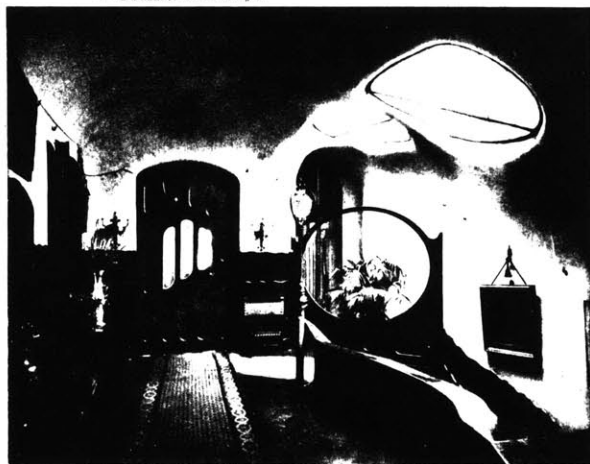
36 Casa Batlló, Public stairs



like modern architects) - but what sort of Christianity is this? ...Not until I returned to Barcelona did I find the conventional reference to these signs. Saint George is a patron saint of this city, which has always led the separatist, Catalanian movement. Apparently Casa Batlló, represents the dragon of Spain being slain by Barcelona's Saint, while the bones and masks refer to the dead martyrs who have previously been victimised in the struggle. All this in an apartment building, and coded with enough multivalence to be suggested to those who care to read the architecture in depth.

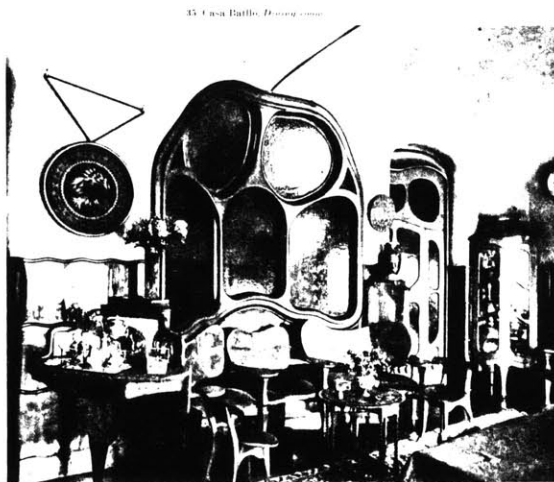
There are other possible meanings and a multivalent architecture, like a multivalent work of art, Hamlet for example, has this power of engaging our mind and opening our imagination to new meanings. It is catalytic, provocative and creative whereas an univalent architecture is reductive and dull. Thus the implication of multivalent architecture is its creative effect on inhabitants and viewers; it, along with other signs, shapes people in a multitude of different ways, articulating their full spectrum of moods, thoughts and behaviours."

"Yet there is a far more important aspect of multivalence than this: the ability of the aesthetic text to articulate radically different experiences, emotions and values as a whole. The text may never entirely succeed in reconciling the full spectrum of life, but it is always an attempt to do so by analogy, and in that sense a symbol of reconciliation."



The work of Antonio Gaudi is a particularly good example of an architecture of multivalent expressions. His Casa Batlló is typically made from a plurality of codes and symbols. A series of metaphors, or symbolic signs, can be seen in the elevation. The balconies stare out like so many death masks or skulls. The middle part of the architecture also recalls vegetable and marine metaphors with some people seeing it as a violent blue sea breaking over rocks which, curiously, turn into kelp (the codes of Barcelona are after all sea-weed sensitive)."

The most powerful metaphors are (as esthetic theories have constantly claimed) ambiguous, mixed and suggested. If the metaphors are singular and named (hot dog stand in the shape of a hot-dog) they become univalent and not open to multiple interpretations. It is Gaudi's virtue that we can find a multiplicity of denotations and connotations for these metaphors.



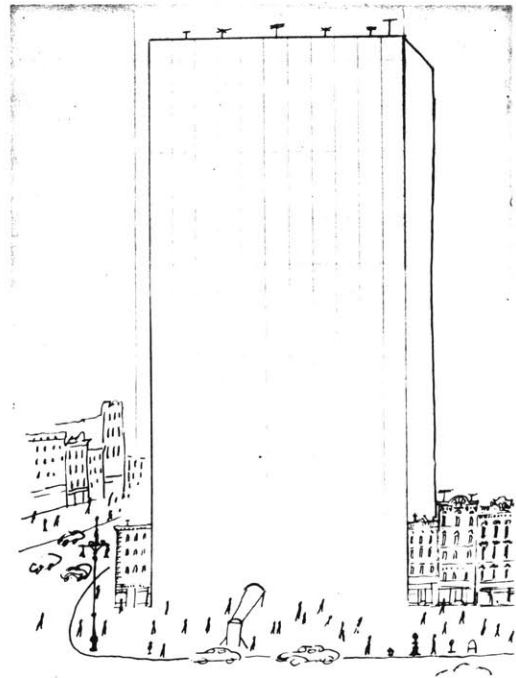
Charles Jencks
 "The Architectural Sign"
 pps. 94-95
Signs, Symbols, and Architecture

I stated above that Hubbard had overstated the role of intention. Perhaps it is more to the point to say that he overemphasized the importance, of what he terms "complicity", for it is clear that intention, or our perception of intention, plays a large part in our construction of meaning.*

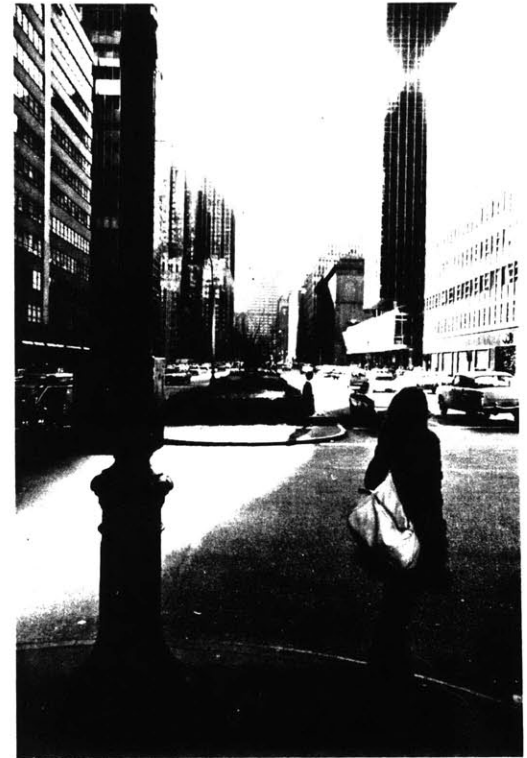
But should the designer be concerned with intention? If so, in what way? Is it realistic to assume that the designer's intention will be the one understood by the observer? Can the designer realistically determine how his intentions are being interpreted by the average user? I have demonstrated that some would say it is possible, at least in part. Then there are others, that feel a designer should work towards the concept "loose fit." Is any single direction correct? The question of intention takes on added importance if we think of the designer's role as not only one of providing utility but also one of serving as a communicator, and what he creates, as a form of communication. (This is part of the semiotic position.) While it may be important for the designer to have his own intentions portrayed in his work, it is just as important for him to realize that his intentions are not the only measure that will be applied, nor should they be. Interpretation will happen, and continue to happen, even where communication fails, and it is this interpretation that is important.

This idea of intention is formalized and reflected in our system of criminal law. We measure the severity of someone's misdeed in relation to what their intentions were. Our perceptions of act change in relation to the intentions of the perpetrator. Someone accidentally dropping a brick through the windshield of your automobile does not carry the same meaning as someone hurling a brick through the windshield, though physically the end result is the same. Our perception of intention makes the two acts different.

I have suggested a process by which "meaning" is brought into, and affixed to, our environment. It is, however, a multifaceted and elusive idea. Understanding the process is only the designer's first step, for if he understands the process and accepts the validity of the idea and its importance there follow many implications that must ultimately find their resolution within the context of his own work. In the next portion I will address some of those implications.



Park and Sixth Avenues, respectively, in Manhattan, zoned for business. "No there, there," as Gertrude Stein said.



IMPLICATIONS

It is perhaps best to begin by stating my own prejudices. It is my feeling that the Modern Movement has been primarily responsible for the removal of what I have been referring to as "meaning" within the context of the built environment. This removal has been accomplished for the most part, by over-emphasizing the importance of "function" and its associated canon, "form follows function." The Modern Movement has extolled this concept to such an extent that it has pushed almost all others to the brink of elimination. Many of the other important purposes, which we turn toward architecture and design to provide, have all but been obliterated from our environment. These notions of "form follows function", and architecture as a "machine for living" in which "less is more" have been responsible for the elimination of the portions of our built environment that recall our human qualities, our past, and our personalities. In short, the things that provide us with the substance of what becomes "meaningful." It has been this single-minded attention to a single aspect, "function", that has fostered the many disciplines and attitudes that have encouraged this removal.

Directly or indirectly, the Modern Movement has been responsible for creating much of our contemporary environment. Therefore, even though there have been notable exceptions along the way, it is not unjust to lay the blame for what we are now

Modern architecture tends to take the evocative qualities of the environment and render them explicit, thereby reducing the potential of our involvement (and the resultant meaning) with it.

One reason we make architecture is to make places on the surface of the globe. We make architecture to set out territories that we can understand as 'here' and not 'there', 'there' and not 'here,' and through that understanding to help us know where we stand, not just physically but also in the mind and memory of mankind.

perceiving in our environment as being "cold", "sterile", or "unfeeling", on the Modern Movement.

One of the other major faults of the Modern Movement was its treatment of the environment as simply a setting in which the placement of "well-designed" object took place. Consequently, modern planning proposed and executed models for cities that were devoid of potential street environments and absent of any concern for context, beyond the narrow confines of how it affected the "placed" object. Planning approaches treated everything but the building as left-over space, rather than a sensed and structured volume necessary to our well being. These, then, are but two of the prejudices with which I begin: the Modern Movement's over emphasis of the importance of function, and its lack of concern for context.

I do not mean to suggest that the Modern Movement has left us with an architecture or an environment devoid entirely of meaning, but rather with an architecture and environment whose meaning or message is unfeeling, disconnected, or alien to the values that, as a society, we profess to hold and encourage. All too often the meaning of what we have built has been blatantly clear and it has not spoken to our better qualities as people. Public housing is a good example of this. It serves as a testimony to the problem of bias I spoke of earlier. The Modern Movement can said to be at fault only in the sense that

it fostered a "style" in which these biases could easily find support. In many cases it offered a "style" or physical form that imposed itself without regard, or actually in defiance, of peoples values. This action often produced an environment that was not without meaning, but an environment in which the resultant meanings were both obvious and negative. In the case of public housing there resulted an environment that grew out of a style, but out of a style which was rooted neither in the values of the people it was to serve, nor the values of the society in general.

Our Point In Time: Post-Modernism

It is particularly of interest to us at present to speak of meaning within the context of the built environment, for we are at a unique point in the evolution of design. We have lived with, and within, the products of the Modern Movement long enough to become painfully aware of their shortcomings. As a result, designers have begun in earnest to look to the future, and in some cases, to the past, for a new direction.

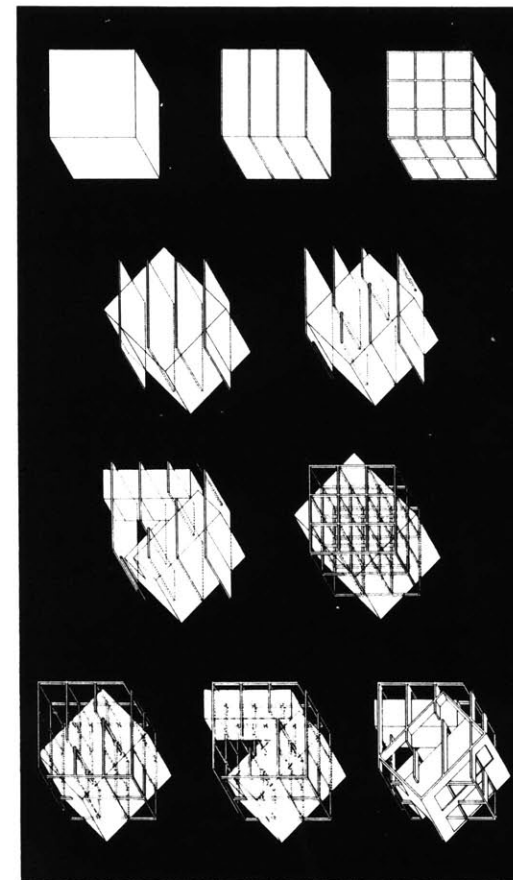
I believe that the Post-Modernists began with this very issue - the concern for meaning. They began searching for a way to introduce, or to infuse, meaning into what they saw as a stark environment. However, this original concern has now begun to splinter and disintegrate. Its practitioners have become increasingly idiosyncratic within their own iconic, in-



bred dialogue of practitioner to practitioner, with the occasional inclusion of a knowledgeable critic unto the fold. This action, I contend, will not result in an environment that holds any more meaning for us collectively or individually, than did the wastelands fostered on us and left by the "city beautiful" contingent of the Modern Movement. Though at first glance the intricate assemblage of moulding, references, and fragment of the Post-modernists may promise "meaning" for us all, if it is left to continue upon its present course it will ultimately not deliver.

And why not? For much the same reason that the Modern Movement, with all its good intentions, did not. Post-modernism is obsessed with abstracting a particular aspect and elevating it to a position of importance that subdues all others. The Modern Movement abstracted and over emphasized "function." This current crop of Post-modernists are enamored with historical reference and intellectual syntactical structures as a basis for their abstractions. Through this process of abstraction and extreme selective emphasis designers end up sacrificing most for the sake of "the one."

This activity amongst designers is the danger as I see it, but it is not too late to affect a change. It is a movement that is still very much in transition and open to influence. In fact, the "post-modernist" camp, in many ways, consists of



121, 122 PETER EISENMAN, *House III* for Robert Miller, Lakeville, Connecticut, 1971. Several of the drawings which generated the house show the main oppositions between two grids at 45° (step 6), a conceptual cage of boxed space (step 7), a column grid (step 3), and wall planes in 'shear' (step 5). Bridges and open volumes unite and divide the room functions. The facades 'mark' some interior transformations, that is if you look at them with the diagrams in your hand and think for a long time. This architecture, like nineteenth-century programme music, demands a complementary text in order to be fully understood.

much more fertile ground on which to plant than did much of what went before.

One For All, All For One: Public Space

How then does this understanding of meaning, as I have described it, suggest action?

The area in which I am most interested, and which I feel is the most necessary to be initially addressed by the designer, is the contextural issue of public space. This issue of course deals with individual elements, but in context, as these elements come together to influence and define this "public space." The major difference should be with the amount of attention given to the individual elements action in consort. The purpose of this new focus of attention is to influence the form and purpose of those elements that were previously considered, and designed, as isolated entities.

Of course this action has its own set of implications. No longer can the designer "do his thing" with no regard for context. And while the designer may not entirely subscribe to the concept of "contexturalism", he must begin to realize that the environment is made up of specific detailed incidents. That these incidents have an affect on each other and on the perceived whole. This realization carries with it the responsibility to consciously deal with each detail and see that it is addressed as an integral part of the whole, and not a



(29) The great Galleria in Milan. High, arching, and glass enclosed, it connects to the square in front of the Duomo.





157 LUCIEN KROLL and ATELIER. *Medical Faculty buildings*.
University of Louvain, Woluwe St. Lambert, near Brussels, 1969-74.

Anderson's definitions for these were presented earlier.

matter of happenstance. (Unless the happenstance is somehow conceived of and designed as part of an overall structure.)*
If the designer accepts this responsibility and works in the fashion outlined above, his actions will then be an acknowledgement of the synergetic aspect of meaning and its evolution within form. It is only through the acceptance of the synergetic aspect of meaning by the designer, and his subsequent actions to address the idea when generating physical form, that the built environment will become potentially meaningful.

But how does the designer of any part of the whole deal with this idea? It is clear that, in a street or public environment, any single designer rarely has complete control. Should the designer even attempt to gain this sort of control? Is it, in fact, desirable?

The work of Stanford Anderson speaks to some of these questions. Anderson addresses the implications of the inappropriate character of absolutes when one is dealing with the "meaning" of a streetscape. He uses the term "loose fit" to describe his overall concept which is, in turn, constructed of various postures. He presents the ideas of the "potential environment", the "affective environment", and the "latent environment" to suggest, possibly for the designer, a course of action.*

"Within the same physical place, different individuals have different affective environments. Similarly, the intersubjective affective environment of society changes over time without necessarily changing the physical form."

"The concept of multiple affective environments implies both that human use and meaning are interdependent with the physical environment and that this is not a deterministic relation."

"Extending the implications of the last paragraph, multiple affective environments imply no strict relationship, but rather a "loose fit" among physical form (potential environment), use, and meaning. Within this loose fit, whatever is not realized in the affective environment is an "unrealized potential" of the environment in relation to society. This unrealized potential may be termed the latent environment."

He goes on to say that:

"The potential environment is altered only by physical change. Both the affective and latent environments can be altered by either societal or physical change."

While it is clear that in each case the process of implementation is unique to that particular time and place, Anderson's ideas do suggest the general attitude necessary if one is to move towards creating a less constrained, potentially more meaningful, environment.

In fact, Anderson's beliefs illustrate that the designer's role may not lie exclusively within the realm of physical intervention.*

As was discussed earlier, a designer must sometimes choose to address directly the public's values, beliefs, and opinions before he can be effective as a designer of the forms in which they live. This idea is what lies at the root of the recent action taken by the NEA.

NEA supports TV series on architecture

The National Endowment for the Arts has awarded a \$700,000 grant to Washington station WETA and Charles Guggenheim Productions for the preparation of a television series on architecture and design.

Twenty-two stations vied for the grant; New York WNET's proposal, with Vincent Scully as host, was a strong contender. The matching grant, the largest endowment to date for arts programming on television, will assist in funding a five-part series of one-hour programs to be telecast by the Public Broadcasting Service. WETA must raise the remaining \$1.4 million for the project, and it is hoped that the series will appear in the fall of 1982.

The winning proposal organizes each of the five parts under a heading: The House, The Car, The Workplace, The Park, and The Street.

Combining Alternative Roles

In some instances, the designer's most affective path might lie in his role as a social agent, in his attempts at altering the values of the public. I have shown that our held set of values have a highly influential role in determining the meaning one associates with an object or place, and, that action taken by the designer should consider the possible affect of his acting on combinations of these factors, and their potential effect on the resultant "meaning."

The sorts of non-physical interventions a designer can choose are far ranging and varied, going from the postulation and presentation of utopian scheme, re-programing of community or client goals, to attempts at user education, or the determination of policy through the control of public office.

Environmental Education

Recently there has been a resurgence of the idea of bringing environmental education to the general public. This idea was first introduced a number of years ago by designers such as Richard Saul Wurman in Making the City Observable. Attempts to educate the general public with regard to environmental issues went through a period of dormancy through the 1970's. The efforts changed and expanded and have recently found support amongst a new body of advocates. Based primarily on funding from government sources, designers have, in effect, been try-



ACTIVITIES

1. Read the text and identify the main ideas.

2. Write a short summary of the text.

3. Discuss the text with your partner.

4. Write a paragraph about the topic.

5. Prepare a presentation on the topic.

6. Write a letter to the editor.

7. Write a report on the topic.

8. Write a story about the topic.

9. Write a play about the topic.

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Ways To Understand Community Communications

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WHAT WORDS DESCRIBE THESE PLACES?

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THE PLACE

ESCAPING

Sketches of buildings and streets with annotations.

Checklist for Fitness

The planning team has organized a list of the strengths of the development area of Cleveland, which included the following:

- 1. **Location:** Cleveland is centrally located in the state.
- 2. **Transportation:** Cleveland has a well-developed transportation system.
- 3. **Industry:** Cleveland has a diverse industrial base.
- 4. **Education:** Cleveland has several major universities.
- 5. **Culture:** Cleveland has a rich cultural heritage.
- 6. **Environment:** Cleveland has a beautiful natural environment.
- 7. **Community:** Cleveland has a strong sense of community.
- 8. **History:** Cleveland has a long and proud history.
- 9. **Architecture:** Cleveland has a unique architectural style.
- 10. **Climate:** Cleveland has a pleasant climate.

THE PLACE

THE STREETSCAPE

Sketches of streets and buildings with annotations.

Checklist of Ailments

The planning team has identified a list of the ailments of the development area of Cleveland, which included the following:

- 1. **Overcrowding:** The area is overcrowded.
- 2. **Pollution:** There is significant air and water pollution.
- 3. **Crime:** Crime rates are high.
- 4. **Unemployment:** Unemployment is high.
- 5. **Homelessness:** There is a large homeless population.
- 6. **Substandard Housing:** Many homes are in poor condition.
- 7. **Lack of Green Space:** There is not enough parks and green space.
- 8. **Transportation Issues:** The transportation system is inefficient.
- 9. **Healthcare Access:** Access to healthcare is limited.
- 10. **Economic Stagnation:** The economy is not growing.

SMELLING MY WAY TO WORK

Collage of street scenes with handwritten notes:

- 1. *Smells like coffee at my front door.*
- 2. *Spreads and Mission 1920's signs around Gas Street.*
- 3. *Stalls beer and snacks from Taverna further on.*
- 4. *Baking bread, smell of cigarettes, soap, laundry.*
- 5. *Arch welding from metal shops.*
- 6. *Flowers of various colors and smells, unusual and very attractive.*
- 7. *Coffee roasting at the Hills, Borek coffee, past.*
- 8. *Sensations at the European with at your feet, walk at the hills.*
- 9. *Many kinds of food, using lots from staff, carts and stalls.*

WORKSHOP DESIGN

Diagrams and illustrations of workshop layouts.

IMPLEMENTATION

Final stage of the workshop design process.

ing to work on influencing what we bring with us into the environment to at least the same extent they influence what is physically inserted. On the local level, in grade schools across the country, pilot programs are being implemented. Public officials are feeling the need to know about the effects they are causing when making policy decisions. They are turning to programs such as Streetsmart* or other similar programs, agencies, or consultants to inform them. This demand, has set, in turn, the stage for many design firms to adopt an educative role in order to acquire new work.

Designers are however, often reluctant to debunk the mysticism associated with the activity of design. The attitude of the practitioner that fosters this mysterious view of the profession must be changed in order to make the field of design more accessible to the public's purview.

The public's new interest in design which has taken place as a result of a large rise in the media's coverage of the profession, may serve to dissolve this mystical veil. But the veil could also solidify into a wall deepening the existing gap, depending upon who gets more press.*

Another growing tendency is for the celebrities in the fields of design to attempt to elevate design to the status of "high art" through the process of re-mystification of design. Their attempts are through the use of self-imposed iconic, intellect-

A good deal of activity has been directed towards promoting certain architects, their process, their products, and their architecture as "art objects" to be displayed on art gallery walls and to be collected. To this end, and in the course of this promotion, it is often advantageous to the promoter to increase the amount of mysticism associated with the practice of architecture and design.

ually idiosyncratic, codes which are portrayed as "canons." If not allowed to go too far, this kind of "stretching" activity, can be growth inducing. As my description of the process of assigning meaning suggests, a multi-faceted approach is to be encouraged as long as it remains within the boundaries of reason, what Hubbard in his model calls "fairness."*

Participation

When we speak of meaning for the lay person, there has remained over the last ten to fifteen years, within what one might call "socially conscious" design circles, the popular concept of "participatory design."**

This is a very complex issue with regard to what I have been calling "meaning" and it must not be avoided. However, I must force myself here to deal with it in only the broadest sense. (The issue of participatory design and all of its implications is far too extensive, and deserving of too detailed an investigation to attempt to address in any complete manner within the framework of this discussion.)

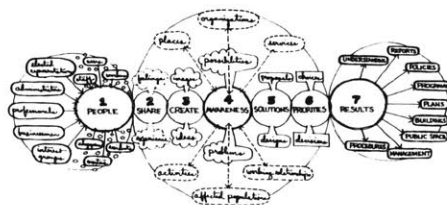
I feel that participatory design does have a role to play in the creation of a "meaningful" environment. However, I do not believe that it follows (as some people will suggest) that because someone is directly involved, either physically or mentally, in a process that changes the physical environment, that the resultant change has more meaning for them. Potentially,

See Hubbard's discussion in his thesis of "Parallèles" pp152-153.

There are at any time, three architectures. There is the architecture of the academies. This architecture concentrates on form. For it, the idea suffices, beautifully drawn, suitable for framing. Then there is ordinary architecture, miles of it, subdivisions of it, skylines from it. This is the commercial building practice which creates the everyday environment. Its focus is function. There is also social architecture. This is the all-too-rare architecture which gives form to the collective experience of human beings and opens up new cultural possibilities. It is concerned with content and form, but still more with process because its central objective is the creation of community. We cannot ig-

nore the ubiquitous architecture of commerce, and the academy architects who are featured monthly in the professional journals. But social architecture is also very much with us.

Ecologue



Ecologue is a process for grounding the design of environment in shared understanding among architects, sponsoring clients, and the people who inhabit and use the place. Small groups drawn from clients, organized interests, and a cross-section of the affected population work collaboratively with professionals.

See the later discussion of Giacarlo DeCarlo p.000.

one may acquire more information than if he was uninvolved, and therefore any meaning received will be the result of more (but not necessarily better) information.

I believe participatory design, if the results are to be effective (in design terms) and meaningful, must be utilized in such a way as to initially inform the designer of patterns of associations and uses within the existing context as well as aspirations of the potential users. Following this initial step the organization of the particular participatory process must allow for the evaluation and discussion of the designer's initial responses, within a context that allows the participants an opportunity for additional discussion and clarification. (Here I have assumed that the participants do, in fact, represent the overall user group, which may, in some instances, not be the case.) This purposeful, critical evaluation should be applied to the process at critical stages throughout. The final product, however, should be the result of the designer's synthesis. The process serving primarily three purposes, educating the designer, making him more accountable, and influencing his design to be more a response to an ongoing dialogue that a statement.*

The process I have just described is, of course, an oversimplification and does not address the problems arising from the inherent internal conflicts of personality and purpose, espec-

ially present in advocacy situations, that are bound to arise. There are many ways to structure a method for a participatory design process. It is beyond the purpose of this discussion to deal with all the possibilities. Experience, and the particulars of any given situation, should be called upon to suggest the most effective course of action.

There do exist a wide range of approaches and practitioners at the present. Community Design Centers, obituaries not withstanding, have continued to operate, as have private firms and individual practitioners.

The following pages give testimony to some of the varied, and important, work that has been done and continues to be accomplished within the field of participatory design.

Award

Jack Sidener



Part of the National Endowment for the Arts City Options program. Reciprocity studies a 'typical' neighborhood.

Program: To propose ideas and means for improving livability through the re-use of public streets and to publish a citizens' handbook in order to communicate the ideas and techniques of neighborhood planning in a non-technical manner.

Site: A biological study.

Solution: An analysis that deals with getting problems such as bicycle paths, trees, play lots and lights, traffic illustrated in a comic strip manner with drawings to show suggested treatments.

Jury comments:

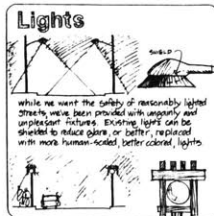
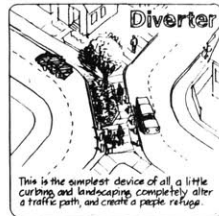
Bonner: A very very good exposition. It is a simple but important and fundamental concept on how the street system is used that it doesn't have to be there forever and that it can be changed to accomplish this or that.

Attack: It is the type of thing that gives public groups who are interested in accomplishing certain objectives a way of looking and thinking about something. They will be helped by this. It gives some very graphic, clearly stated ways for minor interventions. It is proposing to do the most with the least and is very strong.

Credits:

Architect: Jack Sidener, Berkeley, Calif.

Client: National Endowment for the Arts, Architecture and Environmental Arts Program.



Citation Community Design Center

PROPOSITION A

PRO'S

- The conversion center would provide a good, safe, secure neighborhood for children and young adults and contribute additional convenience and amenity.
- Increasing income and investment will benefit all interested in San Francisco development generally.
- The conversion center would bring new people to the neighborhood and contribute to the vitality of the neighborhood.
- The conversion center would bring new people to the neighborhood and contribute to the vitality of the neighborhood.

CON'S

- The conversion center would provide a good, safe, secure neighborhood for children and young adults and contribute additional convenience and amenity.

PROPOSITION B

PRO'S

- The conversion center would provide a good, safe, secure neighborhood for children and young adults and contribute additional convenience and amenity.

CON'S

- The conversion center would provide a good, safe, secure neighborhood for children and young adults and contribute additional convenience and amenity.

The Yerba Buena Planning Ballot gives the public a voice in decisions for a controversial urban renewal project.

Program: To provide an effective way for citizens to make decisions, register opinions, or select ideas from the multitude of proposals already made.

Site: Market St., downtown San Francisco.

Solution: A ballot, divided into three parts as a means of expressing preferences on the most important facets of the project. The first outlines the major alternative planning concepts, the second articulates 13 policy statements dealing with how the project should be planned, financed, and administered; the third is a section containing a map and a selection of land uses from which people can devise their own schemes for the site.

Jury comments:

Bonner: The public's legitimate role in planning is establishing the vision and making value choices, but it is the most difficult thing to do. In this case, the voters are not interested. There are explicit fundamental values associated with each of these alternatives, and they are asking the voters to make that kind of choice. I thought it was really a great idea and I think much more of this could be done. It is, in my way, a threat to the quality of design.

Credits:

Architect: Community Design Center, San Francisco. Carl Caputo, J. Turner, Jr., Project Planner and Director. Lawrence Adams, Designer. Andrew Beckerman, Designer.

Consultants: Tom Keane, graphic designer.

Client: South of Market Residents.



Massachusetts Audubon Society
Norumbega Association

Guiding Growth and Change is a new handbook that defines the issues and discusses options for new growth.

Program: To provide government officials, developers, teachers, and interested citizens with information about the nature of growth and planning for urban, suburban and rural areas of Massachusetts.

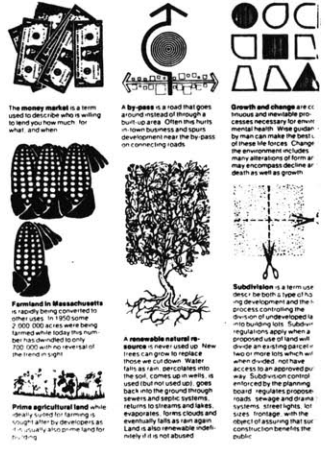
Solution: A handbook, intended as an introduction and resource guide, which contains narrative chapters describing how various kinds of growth and change occur, as well as resource chapters describing tools and approaches to use. Beginning with a definition of terms, the book moves through a discussion of what factors cause growth, and ends with a discussion of some 20 subjects ranging from zoning and subdivisions to wetlands protection, land banking, and planned growth ordinances. Included at the end of each chapter is a resource list for additional information.

Jury comments:
Bowser: It deals with a very complicated subject, but very adequately, and I think it is very effective in giving people ways to act. I think a lot of ordinary people could pick up and find it very useful.

Alfleck: I think it is extremely well done, a very commendable effort in providing the kind of help. It uses a direct approach of readable text, clear graphics, and a number of examples.

Credits:
Author: Sarah Peckin, project director
James Cojman, Elizabeth Kline, project co-directors
Consultants: Alan Goodheart, Sara Peckin, graphic design and illustration
Client: The Massachusetts Audubon Society and the Norumbega Association

Home agricultural land which is being farmed is being bought by developers as a quality program for landscaping.



The money market is a term used to describe who is willing to spend you how much for what, and when.

A by-pass is a road that goes around a road that is built up. Other than highways, by-pass roads are built on connecting roads.

Growth and change are processes and reactions that occur in our environment. Change is necessary for development. Change is the result of many forces. Change in our environment includes many alterations of form or many changes in the way of life as well as growth.

Farmed in Massachusetts is a report on the status of farmland in the state. In 1970 some 1,000,000 acres were being farmed while today the number has declined to 700,000 acres.

A renewable natural resource is a resource that can be used over and over again. It is a resource that can be used but not used up. It is a resource that can be used over and over again. It is a resource that can be used but not used up.

Home agricultural land which is being farmed is being bought by developers as a quality program for landscaping.

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Arrowstreet Inc.
Jan Frankina



Developed as part of the Bicentennial, The Birthday Book is a way for citizens to contribute to their environment.

Program: To design a way for individuals and citizens groups to participate in enhancing their neighborhoods through small-scale physical improvements of the public spaces.

Solution: A catalogue of gifts from which people can choose trees, shrubs, plants, lawn-recipies, water fountains, bird racks, play equipment, and more. It is a do-it-yourself workbook for citizens.

The books are distributed free and Boston 200 helps citizens choose sites, code set for permits and licenses, provides matching funds, and assists in whatever way is necessary to see that the project is carried out. So far, \$75,000 worth of gift projects are in place or underway.

Jury comments:
Alfleck: It is imaginative, a warm and humane proposal. Again, I don't think that we are able to judge the results, but what we are doing is the method used to involve people in their own environments.

Bowser: I think it is a great way for an individual to assume public responsibility, at a scale and in a way that an individual can actually accomplish something.

Credits:
Architects: Arrowstreet Inc., Cambridge, Mass. and Jan Frankina, Myron Miller, project director, Jan Frankina, design and photography.
Client: Boston 200 Corp., Katherine Kane, director, Barbara Wise, program director.



hanging basket can help celebrate the season - for \$10 you can have marigolds in July or holly at Christmas.



Moore Grover Harper
Lorenz Williams Lively Likens & Partners



Riverdesign makes use of a variety of techniques to gather ideas from citizens about their proposed watershed plan.

Program: Master plan for the 4.5 miles of the Great Miami River in Dayton, Ohio, which will serve as a guide for future development of the river corridor.

Solution: Various data gathering techniques were used in order to involve citizens and gather their ideas. A three-hour office was set up downtown, where planning professionals could walk in on the street. A river walk picnic was held after a two-hour boat with a 50 group citizens committee. In the time of a 200 group citizens committee was set up at River Festival in Dayton, Ohio. Sixteen four-hour meetings were held and on the local channel and citizens were asked to call in their ideas.

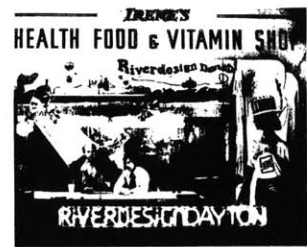
Jury comments:
Bowser: It asks people to enter into some design decisions in a way that is calculated to get more attention. TV is the medium of a lot more people than even the newspaper. It is immediate and it is understood. You call up and you can see some facts with your own eyes and put a picture right where you said something ought to be done.

Alfleck: It seems a quite sophisticated use of a general medium to involve people. It's a little hard to see what the result will be environmentally, but that is not what we are trying to do. Rather, it is important effort, well worked out, to involve citizens with their true beliefs, the client.

Credits:
Architects: Moore Grover Harper, P.C., Essex, Conn., and Lorenz Williams Lively Likens & Partners, Dayton, Ohio. J.P. Chadwick, Project, Stephen J. Carle, Project Managers, Leo F. Lauterbach, Charles W. Moore, partners in charge, Robert Harper, William H. Grover, Jefferson B. Riley, Glenn W. Anderson, Robert E. Reed, J.P. project team.

Consultants: King and Gavett, Hydro Engineering, Mary Ann Rumney, Brenda Huffman, graphic design, Harpers, Steer, George, Market Research, WRE-TV, Dayton, Ohio, University Regional Broadcasting, Television Production, Jefferson B. Riley, Brenda Huffman, residents.

Client: Miami Conservancy District, in cooperation with the City of Dayton, Ohio, Montgomery County, Ohio, and the River Corridor Committee of the Dayton Area Chapter of Commerce.



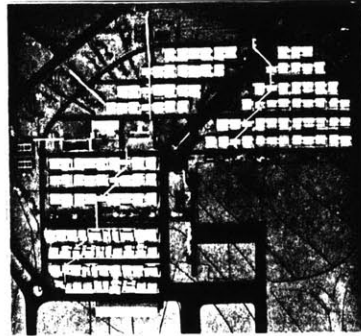
Lawrence Halprin



Participatory design: Case study

Housing Development Matteoti
of Giancarlo DeCarlo

Naomi Miller



Model of entire project, with first phase (completed) in lower left.

Today as austerity grips the one-time Cinderella of the European Common Market, the Italian economic miracle of the post-war decades seems sons away. Crisis succeeds crisis where but a decade ago the populace faced the expectation of continuous, increasing consumption. Growth and prosperity were rampant, and even the building industry was receptive to new ideas. It was at such a moment in 1969 that the managers of the Società Terni, the largest and oldest ironworks factory in this major industrial town, 108 km northeast of Rome, invited Giancarlo De Carlo to design a housing development for 250 workers' families. Precedents for such housing are numerous and include the architect's own houses for workers at Sesto S. Giovanni (1951) and Matera (1954), as well as numerous post-World War II schemes throughout Italy. Above all, housing falls under the shadow of the modern movement including the much publicized projects submitted for the 1927 Stuttgart exhibit. These were especially significant for the design of individual dwelling types and their possible adaptation via modern means (such as standardization of structural components) to low-cost housing.

Terni gave De Carlo the opportunity to put into play his theories regarding architectural practice in the 1970s—an architecture of participation—an architecture in which the users' requirements are explicitly articulated so as to become the basis for the design. As architect in charge, De Carlo posed the crucial questions: "Why should houses range from luxury on down in every sense? Why should have-nots make do with minimal housing and the element of segregation implied here?"

Since the users were to participate in every stage of the decision-making process, De Carlo began planning with them at the outset. Discussions in search of parameters did not have an easy start.

Author: Naomi Miller, associate professor at Boston University is currently a fellow in landscape architecture at Dumbarton Oaks.



Terni workers' and families discuss design (above) and review proposals (below).

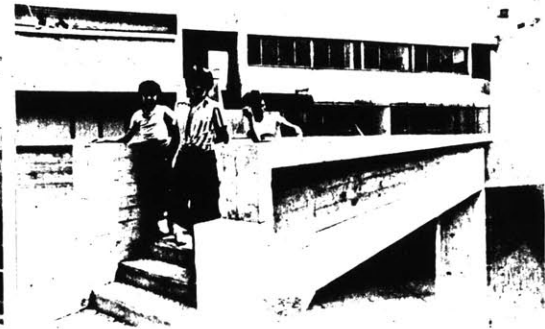
though the management was specifically excluded. The architect did not know the needs of the user, his general behavior, his aspirations, thought patterns, way of life, commercial concerns, views of nature. And similarly, the user had only a vague notion of the architect's work, nor could he clearly express his own interests.

Proceedings at the meetings were taped. The recordings were then presented to the Società Terni, precipitating a clash between De Carlo and the official client. It soon became apparent that the architect's services were at the disposal of the real clients—the users—rather than the patrons footing the bill.

De Carlo presented the users with a wide range of possibilities. To help these prospective clients visualize different types of housing, an exhibition was organized by architecture students at the University of Rome who were residents of Terni. Comprising new architectural models from



Photos: Mimmo Jodice



In first phase, outdoor bridges, ramps, and stairwells link banks of apartments

other countries, the exhibit proved to be a revelation to people who could formerly envision only two typologies—i. e., the one-family house and a form of condominium. The alternatives considerably enlarged the workers' conceptual powers. Drawings evolved at meetings, generating an air of excitement and finally active participation—at least verbalization. Sessions soon grew stormy. Eventually came increasing mutual acceptance. Certain requirements emerged from the workers.

Whereas the planners had greater decision power in the sector of the total environment, the people had considerable freedom of choice in the private domain. The problem in the latter was that of the wide range of needs, and the disparities between those of youth and age, and changing family requisites.

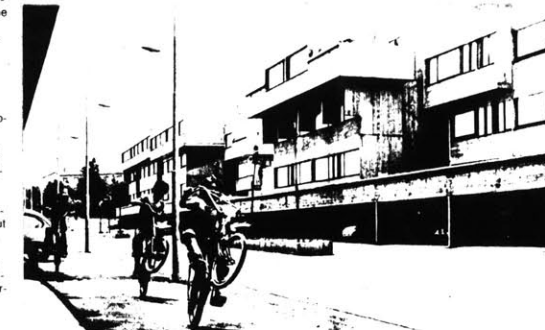
The solution

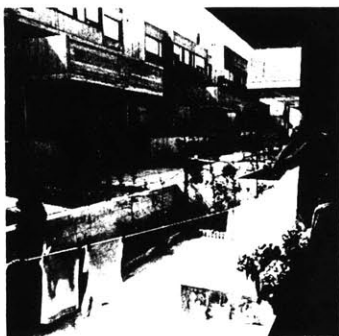
Situated in the fertile valley of the Roman Nar at the confluence of two rivers, Terni, with its population ca. 100,000, is in many ways typical of the outgrowth of post-World War II industrial suburbs on the more distant periphery of Rome. Blocks of new, modern, poorly built high-rises dominate. Few monuments and churches of the ancient city remain, while the Terni ironworks are located outside the city. A generally humid climate prevails, with hot summers and rain in the winter months. The site of the housing, adjacent to that where many of the metallurgical workers now live, is flat, with a view towards the distant limestone chain of the Umbrian Apennines.

In accord with the requirements articulated by the users, a series of five rows of houses for 250 families—about 800 population—was formulated. The overall site plan reveals a development about four times the size of the present area, 20 hectares, with a projected population of about 1000 families. All the housing blocks are oriented in an east-west direction. Major arteries and subsidiary passageways link the four clusters distributed in three quadrants: a fourth is open for recreational purposes. Further communication is made



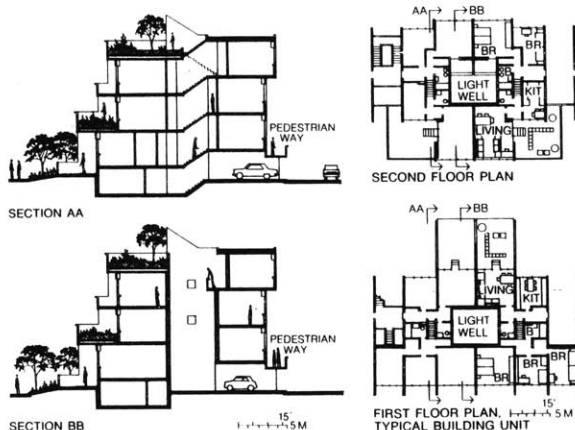
Private open spaces have roof gardens (above); public streets link to garages (below)





Participatory design: Case Study of Matteotti

It seems as if De Carlo were indeed capable of educating the people in the tenets of an ideology that could be adapted to their needs.



One current practitioner who might be looked at to serve as an illustration of the general approach I have outlined under my discussion of the participatory process is Giancarlo DeCarlo. A fine example of his approach at participation can be seen in the work he has done in Terni, Italy for workers housing. DeCarlo engaged first in a stage of mutual education. In this way the users made him aware of their concerns, desires, and expectations and DeCarlo presented them with a range of architectural possibilities - thus increasing their ability to conceptualize and contribute to the process.

The uniqueness of DeCarlo, for me, lies in his predilection for acting, and his tenacity, as an advocate of the "real user", who, quite often, is not the client.

The formal aspects of DeCarlo's work clearly are derived from his personal vision, his synthesis. This vision is influenced by what he has learned from the user through the participatory process, but the solution is clearly his. In other practitioners the influence that is felt and reacted to quite often comes from the client, not the user, as in DeCarlo's work. DeCarlo succeeds, in a large part, because of his ability to work within, or around, this conflict of user and client. Rather than seeking only the formation of a new aesthetic, DeCarlo seeks in his work a new social consciousness, a new social order.

Participation of the Craftsman

There is one other type of participatory activity which I believe demands special attention. In a way it is an extension of the design concepts expressed by Anderson in his term of "loose fit", applied directly to the construction process. In this case, the designer acts much like a composer, in that he "scores" or orchestrates the work in a manner he feels will produce his desired effect. The particulars of execution are then left to the individual craftsmen to interpret within the overall framework set for them in the score.

When well implemented, this process of the designer scoring the overall effect he desires and then allowing the craftsman to achieve that effect in his own way, produces a designed product that approaches the situation that we find in nature and that we respond to as being natural or beautiful. The process is an intentional means of achieving the qualities of variation while still maintaining an overall (though loosely organized) structure. The quality achieved through the designed participation of the craftsman is often the exact quality that designers and lay people alike respond to, "feel" so positive about, when experiencing an indigenously built place such as an Italian hilltown. This form of participation, one in which the craftsman is involved, suggests a design ideal that relies on organic growth and evolution as key elements. It is likeness



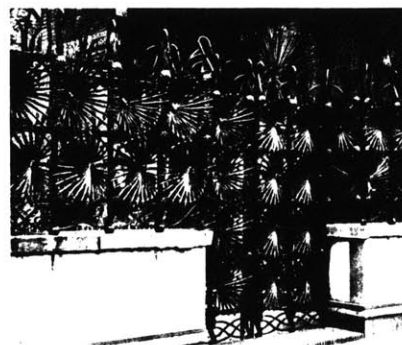
The beauty we find is from the comparison we make of the things with themselves, seeing their likeness and difference. The essence of rhythm is the fusion of sameness and novelty; so the whole never loses the essential unity of the pattern, while the parts exhibit the contrast arising from the novelty of their detail. A mere recurrence kills rhythm as does a mere confusion of differences.

Casa Vicens, 1878-80



tempered with difference.*

I believe that the work of Antonio Gaudi relied on the individual craftsman, for the execution of his work, to and extent that we are today both unable and unaccustomed to do. Currently, one might look to the work of Lucien Kroll to find this sympathetic relationship between designer and craftsman, or, in this country, to the work of Kenneth Triester.**



Casa Vicens, Entrance gate

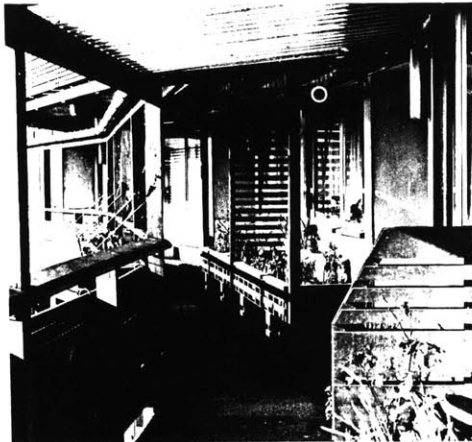


LUCIEN KROLL and ATELIER, *Medical Faculty buildings*. University of Louvain, Woluwe St. Lambert, near Brussels, 1969-74. An artificial hill town of various activities, articulated with different building systems.

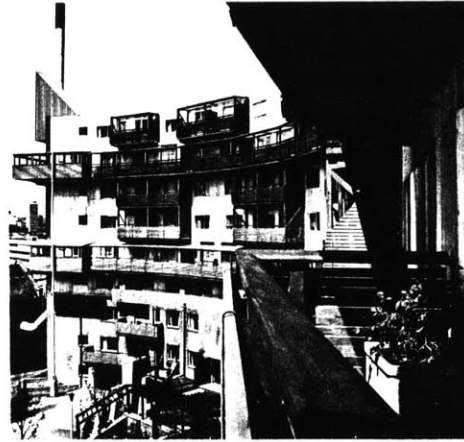
Kroll's work evolves out of the participatory tradition and, just as the other practitioners cited who work in this way, depends a great deal on the involvement of the user. Kroll's work differs from most in that he includes the craftsman as an active agent in the process of creation. This is best seen in his work on the student housing at Louvan University, just outside of Brussels. In this project Kroll orchestrated consistently conflicting groups of participants into finally arriving at a workable solution. The resultant buildings show a complexity and richness of meaning that often takes years to achieve and is the result of many inhabitants making small adjustments over time. The idea that a simulation of such a natural, and piecemeal, effect can be built into a participatory process from the beginning is important. However, it demands the commitment and understanding that Kroll and his group had from the start. (This same effect is achieved by Erskine at Byker Hill but through a somewhat different process.)



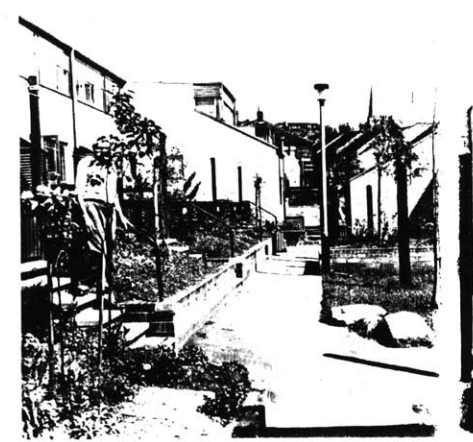
3 One day we said to the builders 'mix with bricks as you see fit; you start here and go at least up to there' 4 We suggested the general form and the builder invented the shapes.



6 Left: Byker, Newcastle-upon-Tyne, England, by Ralph Erskine, V. Gracie, R. Tillotson, B. Ahlqvist and others (1970-81). The clear majority (80%) of the inhabitants are re-housed in high-density low-rise units, surrounded by an interminably long and rolling housing block, designed to give protection from traffic noise and to create an identity for the area.



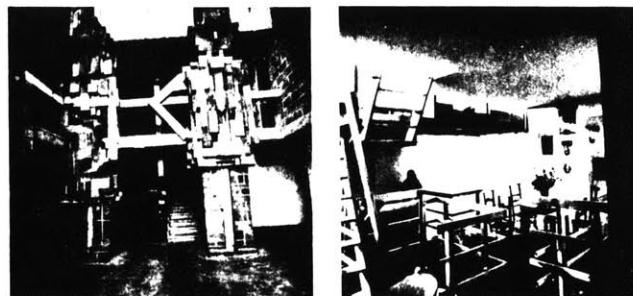
7 Below left: The access-decks on the Byker Wall are kept as busy as the old streets because the entrances are close together, with the flats on two levels, going alternately up and down. The decks are narrow and frequently interrupted by conservatory-type semi-public spaces, where one can sit and admire the spectacular view and pass the time of day with the neighbours.



8 Below: A walkway in Byker. There are few signs of vandalism in the new areas, which might be due to the semi-private and easily supervised character of the lanes between the buildings. Another reason may be that the children, involved in their environment doing, for example, tree-planting themselves.

Kroll's significance for me is derived from the process he employs to encourage, but still manage, the improvisations of his craftsmen during construction.

In all, five different building systems were used. No explicit semantic model was used but the success of the assemblage must be credited to Kroll. Participation does not automatically produce such sensitivity. There is clearly an aesthetic intention that was brought to bear on the scheme at particular key points. It is here where Kroll's skill, the skill of the designer, has been delicately keyed into the process without dominating it, that distinguishes this result of participation (from others).



158 LUCIEN KROLL and ATELIER, *View of two residential hills*



157 LUCIEN KROLL and ATELIER, *Medical Faculty buildings*, University of Louvain, Woluwe St. Lambert, near Brussels, 1969-74. An artificial hill town of various activities, articulated with different building systems.

It is relatively easy to see the similarity between the effects achieved by Gaudi in his work and the effects achieved by Kroll in his updated version of the inclusion of the craftsman within the process of creation and construction.



Triester has enlarged the group of craftsman that designer's generally consider necessary for the construction of a building; in addition to the carpenter, electrician, plumber, mason, and others, he includes the artist and artisan as integral members of the team, throughout the process of design and construction.

If we are, as my model suggest, to embark on such an inclusionary process of design and construction, we must be ready to confront the problems and implications that will arise. Considering the work of Kroll and Triester raises any number questions about how we apply the principles the two men present, or even if we can apply these principles to the larger context of design.

How do we train this new breed of craftsman? Can we re-introduce the notion of pride in a job well done, which this work suggests is necessary, if it is to be accomplished? How much will this cost us in the atmosphere of the existing labor market? How can this market be changed, if necessary, and where is it most necessary that designer's address their efforts? What will the unions have to say about these actions and what will their role be? How can we use existing building technology to our advantage, costwise or otherwise? What new construction practices do these new goals demand? Who participates, and when? Who supervises the whold process as it takes place in order to ensure complicity, and how? At what point



does this involvement become important?

These are only a few of the questions that this kind of approach to building raises. I believe, though, that these questions are answerable. It is clear that the designer cannot be everywhere and do everything. We must therefore adopt a strategy that has the designer choosing specific bits of a whole upon which to concentrate his resources and efforts. These "bits" would form the nuclei and establish the framework for the individual efforts of others involved in the process of construction and definition of place. The selection, by the designer, of which particular bit, and his subsequent actions on it, should be based on his understanding of the process I have described - that process by which meaning is generated. The overall framework he establishes should likewise be constructed to support his particular vision and should also be able to encourage and support deviation within "reasonable" limits.

The action I have outlined can be useful if applied at the scale of intervention to which Kroll applies it, ie. to encourage his masons to vary from what is regular or standard, or Triester, who uses it to target his insertions of "craft." In larger scale applications, such as in the Riverwalk development for the city of San Antonio, a process was used by the designers to establish an overall framework which encouraged the involvement of private development capital. The designers

attracted this involvement by selectively improving particular strategically chosen portions (bits) and then allowing the profit motive of the business community, which then became interested in this partially improved area's potential, to underwrite a majority of the remaining development costs.

It is my opinion that the concerns and activities discussed above all stem from the major implication of our re-thinking of the current attitude within the design profession of the role of the building tradesman in the process of creation.*

But if the designer is to change his conception of the craftsman this also demands a change in the attitude of the trades in general, and of the craftsman in particular as to how he views his role in the overall process. A change may be necessary in the attitude of that craftsman towards his responsibility of returning to the notion of skill and craft. We must begin to produce tradesmen who not only have the skills required but also wish to be involved in the process of creation beyond the cashing of a paycheck.

These kinds of concerns are not always within the scope of the designer's abilities, but he can at least begin to work in these directions within his own range of control. Certainly any designer can begin by considering the craftsman as a necessary and integral partner and by designing him into the process. The designer must begin to draw upon

Many designers, when considering the relationship they have with the craftsman and the effect he can have on their buildings, refer to Murphy's Law: whatever can go wrong, will. The designer who believes this often works in such a way to reinforce this belief. While it may not be a totally unjustified view to hold, particularly at present, it is, in many ways a self-fulfilling situation. As long as the craftsman is considered in this role as adversary it is not likely that he will attempt to assume a more active, responsible role. Designers must find ways to accomplish this transformation by designing the craftsman into the process of creation to a greater extent than he is presently included.

the craftsman as an asset, rather than continue to consider him an obstacle to be overcome.

The precise ways in which designer may choose to involve the trades are as varied as the number of designers wishing to take on the problem. But as a means of getting started I would suggest looking again at the contributions of the craftsman during those periods of building when it took only ten or twelve drawings for the craftsmen to be able to construct what we still consider a 'highrise' building. This look back is not for the purpose of abstracting the products of this period into the present, to be applied as so much icing, but rather to look at the way in which the craftsman was called upon to contribute to the overall product, thereby enriching upon the designer's conception.

I believe the benefits of this endeavor far outweigh any amount of growing pain we might suffer in overcoming the obstacles.

Participation in the Absence of Designers

The need for a process of enrichment or "participation after the fact" should also be considered by the designer who is interested in working in a participatory way and who is interested in producing an environment that is meaningful to its users.

Perhaps it should be the designer's role that even while he may be taking his own design actions he must constantly be watching for the signs that will indicate which areas of the environment the people for whom he is designing (not necessarily the client) are interested in effecting. It may be necessary for the designer to relinquish some of his control over those parts of the environment in which it becomes apparent that the users have an interest, or need, to effect.

The designer's impact must not be so dominant as to thwart the later inhabitants interest or need in effecting some alteration or addition. If the designer's process of creation has been a success he will have made his statement while at the same time providing an environment that facilitates user contributions for those who are so inclined. This may happen as the result of a designer's intention but it is just as likely to happen as a matter of default. There exist a number of examples that indicate that occupants of a place, if left to their own devices in an environment that is not so extreme or controlled as to totally prohibit their involvement in it, will initiate additions to their portion of the environment that substantially increase the meaning the place holds for them, and in many cases transforms the entire feeling of the place.*

For examples one might look generally at the work of John Turner or more specifically at the study done by Julian Beinart on the government built cities and people-made places in South Africa.

It is the job of the designer to design in such a way as to create an environment in which this additional layer of meaning can be added, and not to create an environment so particular that this additive process is prohibited.

Quality of Place

The idea of participatory design grows from the belief that if a person is involved in the creation of his environment the potential is increased, even if only for that person, for the resultant environment to be meaningful. Even if one accepts this idea, the quality of what is created through the process is not satisfactorily addressed. This question of quality is an essential one for the next person who uses, or inhabits, this creation, and for every subsequent user. Since none of these subsequent users will have been involved in the creative process, how we are to find ways of involving each successive user becomes an important issue. Does the place physically undergo a change with each successive occupant? This does not seem a likely solution.

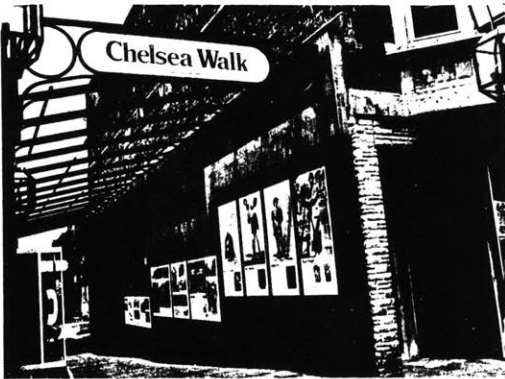
I suggest that a different tact be use, one that is hinted at by the process of "layering", which is one of the major ways by which meaning is evolved. The tatic I would suggest is based on inclusion rather than participation.

My approach is based on the creation of an environment

which encourages, or simply allows, the inhabitant to consider himself a necessary and active agent in the environment, either directly as a participant, indirectly as an interpreter, or referentially, through a process of association. Simply put, I suggest a way for him to take part, to become involved with what is there in the environment, as opposed to his active participation in the process of creation, thereby individually transforming the space into a place. It is the designer's role to provide anchors for this involvement, anchors which exhibit a sensitivity for and are grounded in the principles I have illustrated as formative of meaning.

The process I suggest strives to achieve the same result as the process of participation but goes about it in a different manner. It seeks to introduce the aspect of participation at a later stage in the development towards meaning.* The process attempts to remove the untrained from having as active a role in the creation of basic form, yet seeks to afford him the opportunity to leave his own personal imprint upon the "place" by providing him with an overall structure the will accept his subsequent additions. It must be noted, however, that to be successful even this process may be very dependent on various types of participation, or an educative process, during the early stages of conception.

Though the act of creation may be meaningful, its result, the product, may not. (It may, in fact, take on very negative qualities as a result of ones involvement.) It is with the products of these action that we must live.



In downtown Chelsea, an early and much built-over Massachusetts town, Chelsea Walk has become a well-used passage and civic display space, (at top). The benched and attached metal purse has already created a fresh layer of Chelsea anecdotes about old ladies who try to take it with them as they board the bus.



Placemaking

The act of design, the act of manipulation of the environment, which encourages us to make the transformation of "space" into "place", might be referred to as the act of "placemaking", and the physical artifacts we use to accomplish this referred to as "place makers."

The idea of "place" is not an idea with which we are unaccustomed. I am quite certain that we have all, at one time or another in our lives, been part of a group enjoying the activity around a fountain on a warm summer day, or been struck by the transformation that the old house down on our corner underwent when we discovered that some famous person, a person we had always respected, had lived there as a boy. How many times have we passed a bakery and not paused to reflect on the associations called up by the smell of fresh baked goods, or confronted some historical marker and not imagined "what it must have been like then?" Who hasn't found himself first wondering, and then imagining stories, about why a thing might be just there, just that way? These are all situations in which a space had become a place, and those things, the fountain, the old house and its past, the smells of the bakery, the historical marker, and the object of our imagination, are all examples of "place makers".

A place maker is anything that helps to define, reveal, enrich, reinforce, expand, or otherwise make accessible place meaning. It may be an object, an idea, or both.

Many of the aspects of built space which were vividly more numerous, more present, in past times, and which have been stripped from our environment as a result of the modern movement, were precisely the sort of "unnecessary baggage" which encouraged the transformation of space into place. It is time that we made a conscious effort to hold onto those aspects that are left and begin to reintroduce forms that will assume these roles. If not for our own benefit, we must take this action for the benefit of our children, who will otherwise inherit an environment that has nothing of value from our past, which we had the foresight to save, and nothing of value from their past, since we will have constructed nothing in our time that will have warranted preservation.

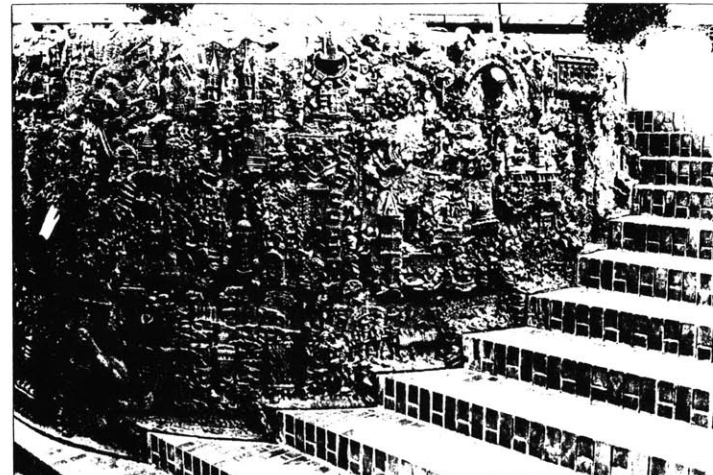




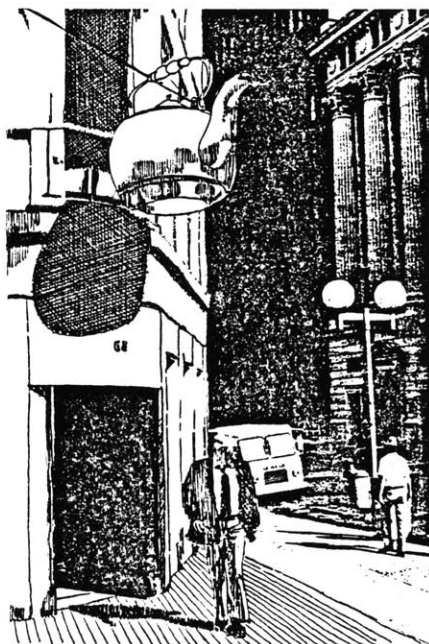
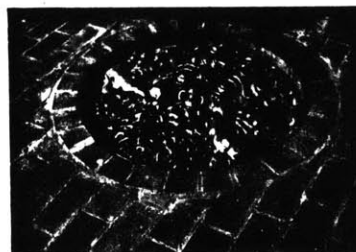
That familiar fellow, the Princeton professor, above right, cast and donated to the town by sculptor Seward Johnson, sits on a bench in front of Borough Hall reading his New York Times. Above, Seattle tells you where you are by means of manhole covers, metalcast by Seattle artist. A special program enables local citizens to donate them.



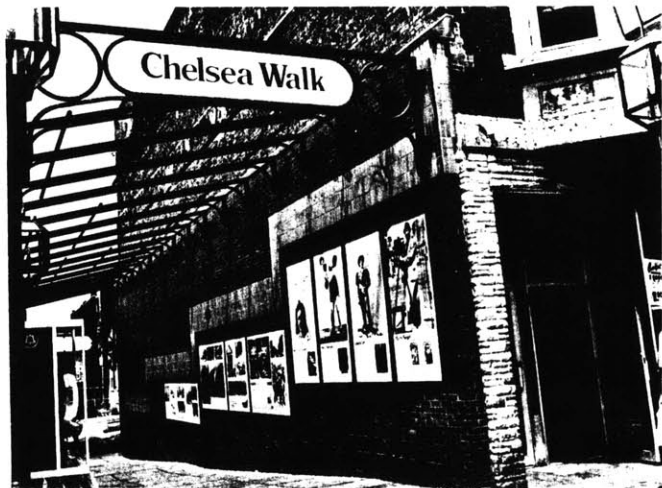
(30) A typical cool, mysterious Persian bazaar whose appeal depends as much on smells and sounds as on visual qualities. As you walk through the bazaar, there are the tinkling of bells, the smells of spices, the smoke from waterpipes and the rich, deep colors of Oriental rugs.



Passing hands flutter, touch and caress this bas-relief at the Hyatt Hotel fountain, San Francisco. As time and passers-by pass, the most favored parts of the casting show their passage.



1. Benches at Grant's Tomb, New York City



The work done in Chelsea by the Townscape Institute attempts at awakening interests and memories about a common past that many people were unaware they shared. A memory wall depicts local personalities from the past who have made significant and interesting contributions to history. Current personalities are presented as well.





SIGNS AND SYMBOLS



If the door speaks to the passerby, its hardware is even more immediately related to him as a person. These pieces of small-scale sculpture, in fact, are to be touched. Of the furniture in the street they are one of the elements with which one has immediate physical contact. Door handles and door pulls, bells, knockers, and push plates are elements which we grasp and touch, and which need to be designed as hand sculptures, whose pleasures go beyond the visual to the tactile.



Place makers may act in other ways to invest our environment with meaning.* The work of Ronald Lee Fleming and his firm, The Townscape Institute, might suggest the beginning within the professional community of a recognition of the need for this type of activity to occur at an early stage within the designer's process of conception. The work being done at The Townscape Institute has begun the difficult process of actually defining strategies and scenarios for how to effectively undertake this activity of "placemaking".

Von Tscherner and Fleming speak of the use of literary techniques such as Stendhal's concept of crystallization,* or Proust's later use of this same concept. They describe the inclusion and creation of appropriate ornament as a beneficial action, and begin exploring ways to reintroduce some of the "lost craft" associated with this activity. The authors suggest that designers need to re-think their current conceptions, or strategies, of how to "activate" spaces and transform them into places. The act of commemoration, as an event, is viewed as important. Their work calls up the past and then presents the past to the present and future, in an attempt to produce between the two a dialogue that has substance. Strategies are evolved that take a closer look at the effect of sequencing and ways of suggesting additive meanings that build, shift, and evolve through an extended "place". These ideas are ex-

Place makers invest meaning in a variety of ways. Some transform the character of a place; others only add a small increment of meaning. Many placemakers simply add a layer of decorative richness, while others are acts of celebration or commemoration. The older artifacts, the "survivors", constitute a different category, one of "anointed" objects whose value comes partially out of the tenacity of their survival. Probably only a few know their stories, but, in contrast to their surroundings, they have a specialness that jogs the imagination of the viewer. There is an enormous potential for employing such historic artifacts more frequently in urban design, and with more precision.

cited in part from (an unpublished manuscript for) a book on place makers,

Ronald Lee Fleming
Renata von Tscherner
Place Makers: Public Art in Context

"It is a word that the French novelist Stendhal used in his treatise On Love more than a century and a half ago. He used crystallization to describe the way objects in the environment recalled connections between a lover and his beloved. We employ it to describe the way place makers create or re-

inforce this mental landscape of place in the minds of both citizens and passersby."

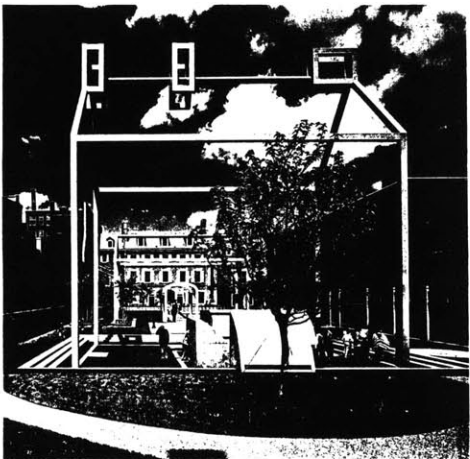
from:

Place Makers: Public Art in Context

Ronald Lee Fleming

Renata von Tscharner

Lamination: this is a concept in which the designer provides the skeleton of an idea through the form he creates and the observer, through his imagination, completes the idea. A good example might be Venturi's work in Franklin Court.



14. Venturi and Rauch, Franklin Court, Philadelphia, 1972. In an open frame of slender steel approximately Franklin's old mansion, the historic garden house has been revived, while the surrounding buildings have been preserved. A community of traditional housing together of old and new.

Magnification: this is an on site, in context, presentation by the designer of what 'could be' or what he thinks 'might happen' as a result

pressed in the concepts of "lamination", "magnification", and "transfluence".*

The work of The Townscape Institute constitutes a first attempt at addressing the problems that confront the act of place making. The obstacles confronting place making are numerous, the negative, or nullifying, effects of vast rows of uninspired street furniture and the sometimes self-defeating cuteness or over exaggerated quality of the objects that are so often introduced by designers with the intentions of "animating" the wastelands in which they are placed, are but a few.

Finally, there is a strategy that calls for the use of a multi-disciplinary "charette" team whose job it is to create an "environmental profile" as a first step in any overall planning process. This "environmental profile" becomes the basis of a framework within which the design professionals would be asked to work. The framework describes the necessary sorts of information, such as the history or traditions of a particular area or site which might be relevant. It also suggests available financial and artistic resources and preferred themes; all of which the designers may not have the resources to compile on their own. This framework, then, provides the designers with a foundation and set of guidelines by which to measure their activity. If this process is undertaken at the appropriate point within the development process of a pro-

ject it can be very cost effective, and might well be funded through the monies that have recently become available as a result of a growing interest in the inclusion of "public art" in our environment. Many communities have passed, or will be proposing, legislation that requires a certain percentage of any project cost to be devoted to this area. (pre Regan administration) In Massachusetts the amount is 1% of a projects total cost. If creatively applied, the money provided as a result of this legislation could be used to develop the framework I have described.

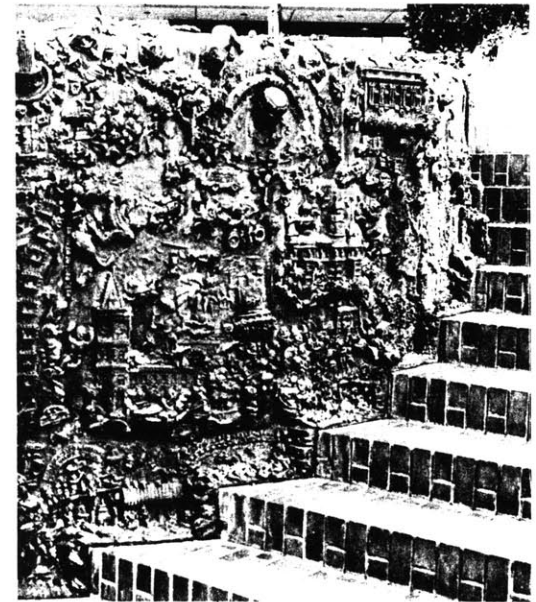
Place Makers as Public Art

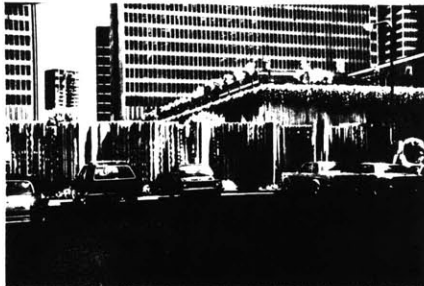
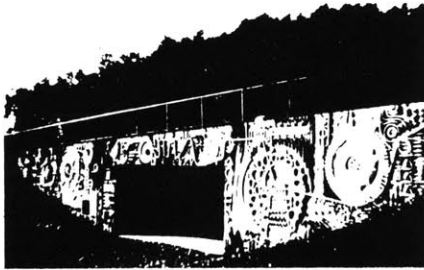
Many of these place makers may indeed be objects of public art. However, it is my feeling that public art need not be our only attempt at "place making". As I see it, there is an inherent problem with anything perceived primarily as Art, and this must be considered when we take action.

Once an object is viewed as Art our perception of it is often altered in some way, and the meaning becomes different than if we are viewing the object simply as a "thing". Intentions are often interpreted differently and, in many cases, in ways and in places they should not exist at all. Once something enters the realm of Art we quite often readily surrender our own interpretations to someone who is presented to

of some policy or physical change. The presentation may paint either a positive or negative picture. It may provide a scenario designed to elicit a response or influence an opinion. It may describe what has happened elsewhere given similar circumstances.

Transfluence: this is an attempt by the designer to capture the essence of a place, or experience, through a sequential process of exposure. Each physical cue building upon, and effecting the meaning of those that have preceeded it. It is often attempted metaphorically though it is not necessary to do so.





us as an "expert", who may, in fact, not have any less prejudiced or misinformed opinion than ourselves. The potential is increased for us to fall victim to the situation of "the emperor's new clothes" and for something to be foisted upon us, and into our environment, which does not serve our purpose and in which we do not believe.

The very idea of this process of alteration can have interesting implications for the creation of a particular object and the effect we wish to achieve. One can see the possibility for the creation of a "schizophrenic dialogue" within an object as it goes from "thing", to "art", and back to "thing" again, before our very eyes. But in order for one to take advantage of this possibility, or the others offered through the inclusion of art in the environment, one must be aware of what takes place in the mind when an object is viewed as an "art object", and must be ready to deal with the situations that will consequently arise.

If "art objects" are to be used it is preferable that they be well integrated into the overall design, but at the very least, that they evolve out of concerns that have been generated by the particular place. The concerns, or issues, raised may then be interpreted by the individual artist and find their resolution in his work. It is intended that this posture be struck in order to prevent the continuation of

the current practice of simply finding a place in which to place an object that the artist may have created as a separate act (often years before).

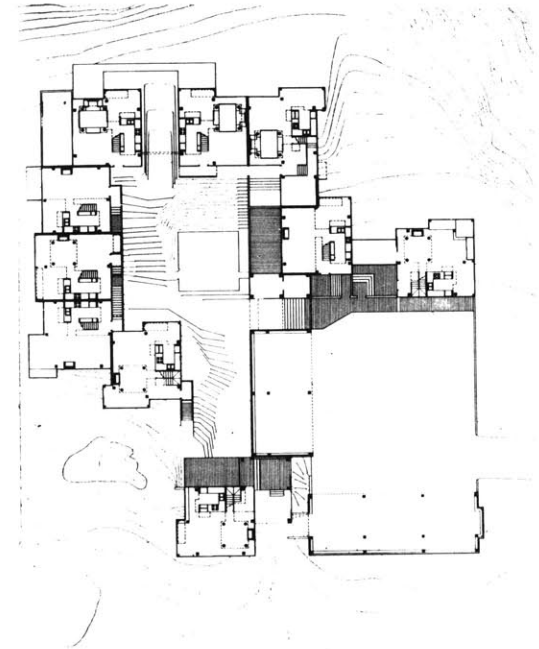
As attempts at creative place making grow to be more directly pieces of the context in which they are found; rather than simply objects inserted into the environment, the more effective they will become. This then is the goal towards which to work.

Architecture as a Creator of Space

The act of place making does not necessarily have to involve the addition of an object into an already existing environment. Place making can, and should, often be the result of space manipulation, especially in the case of new construction.

The concept of place making applied to building is well illustrated in the work of the firm Moore, Lyndon, Turnbull, and Whitaker, especially if one regards the work that was done on the Sea Ranch, or later, at Kresge College.*

How a space (internal or external) can become a place through the simple (at least in theory) attention to the way it is enclosed, defined, fronted, or detailed, becomes apparent in this work.





13. Solarium, condominium unit 1



Glass porch, condominium unit 9



12. Bay window and living room, condominium unit 9

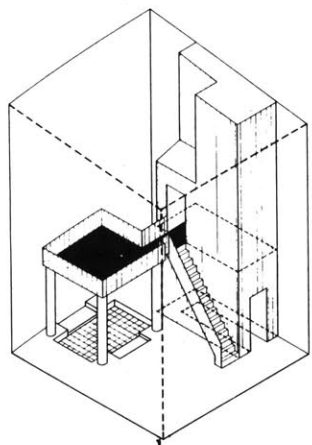


At Sea Ranch the existing landscape was not hospitable to large stands of trees but shelter from the ocean wind was necessary. This was achieved through clustering the units around two court spaces (one for people, one for vehicles) and by settling the units into the landscape.

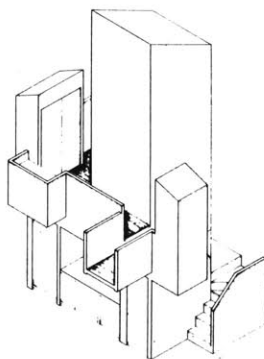
The court spaces took on the quality of shared places, primarily due to their sheltered quality and joined access. They provided the much needed shelter from the ocean breeze. The system of construction provided for the opportunity of constructing individualized "add on spaces" with each unit, in one case a greenhouse, in another a bay window, or another a patio or balcony, etc. The "add ons" generally occurred on the lee side of the buildings in order that the spaces might benefit from the idea of definition of place by virtue of being perceived of as sheltered places.



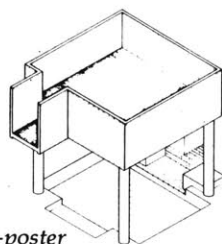
The idea of suggesting divisions of space and definitions of place through the use of physical cues which might, or might not, be evoked was carried to the interiors as well. The result can be seen in the way the four poster sleeping area was used within the unit's overall design framework to define the differing areas.



8. Typical condominium unit



10. Typical kitchen and bath.



9. Typical condominium four-poster

The same sets of issues and concerns can be seen in the work MLTW did later at Kresge College. The attempt to resolve and address the problem of meaning and the ways that spaces become places can be seen in MLTW's creation of the central street, the location and relation of the living units to each other and to the street, and the public/private zone between. MLTW has attempted to introduce into the general structure of the campus architectural indicators of places that exist as unique (ie. laundry, telephone, gathering places, stoops). The architecture reinforces the sense of sheltered spaces (at Kresge, respite from activity). As with Sea Ranch, the indicators that MLTW offer at Kresge suggest without insisting.

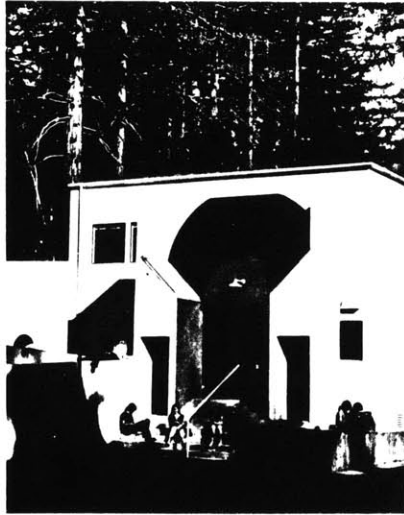


Figure 36. Kresge College, view of the phone booths with the "rainbow."

Figure 39. Kresge College, drawing showing the rhythmic openings in the screen walls.



Figure 38. Kresge College, view down the central street.

Figure 41. Kresge College, the town hall, at night.

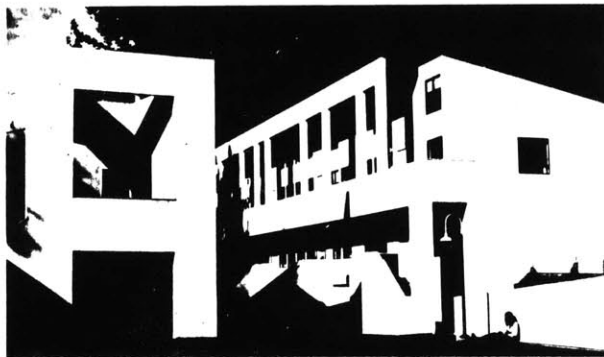


Figure 35. Kresge College, view toward the laundry.

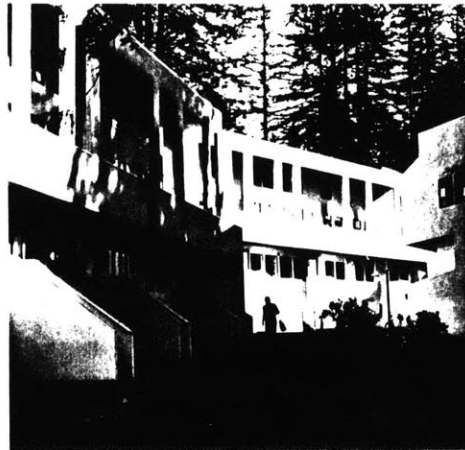


Figure 42. A village streetscape at Kresge.



Of these four architects I believe the individual work of William Turnbull offers the best example of how place making can be applied directly to the making of architecture. Turnbull is able to harness the emotive qualities of the elements he uses (especially through his use of light and color) and orchestrate them in such a manner as to invest his buildings with an essence of place that is at once both personally meaningful and multivalent. He consciously works with the emotions of the observer in mind, an idea to which most other architects only pay lip service.

In the Zimmerman House, for example, Turnbull was presented with a client couple who had distinctly different views between themselves about what kind of house they wanted and the qualities it was to have. Mr Zimmerman wanted a house that was always bright and filled with sun. Mrs. Zimmerman, on the other hand, wished to have a house surrounded with porches, in the veranda fashion. She remembered this image of "porch" from her childhood in Maine. Porches, however, suggest shade. Turnbull was faced with resolving the conflict.

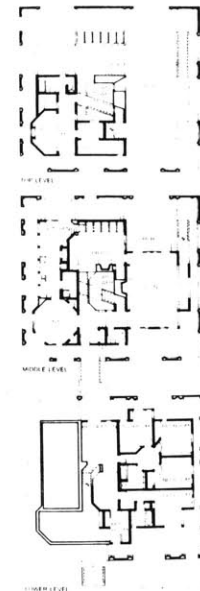
In his solution Turnbull remained true to his notion that "a house must embody the people's dreams and desires, their aspirations and expectations." He translated his clients conflicting desires and images by blurring the distinction between the two and building a house as a porch, or porch as a house, depending on the viewer's perspective.

Turnbull, in the Zimmerman House, constructs a house that develops, in fact takes its very character from, the ambiguity of inside/outside, formal/informal. It is a place constructed of light which is continuously changing with the seasons and time of day.

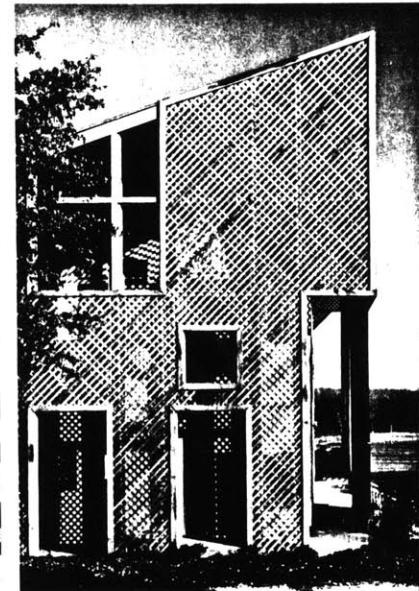


Entrance façade (above and below) reveals the juxtaposition of two scales

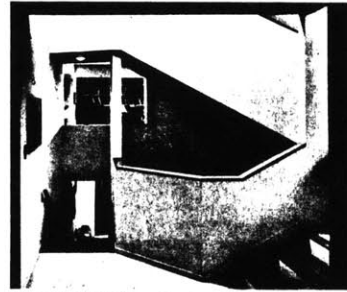
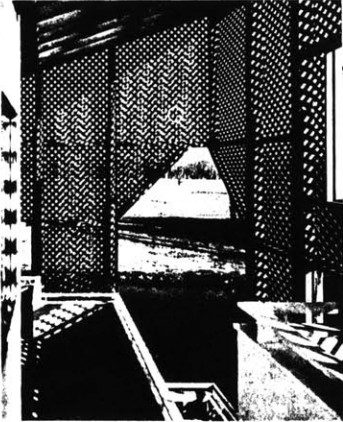
The Zimmerman house in Fairfax County, Virginia, by architect William Turnbull, uses a southern vernacular to resolve some very basic programmatic conflicts.



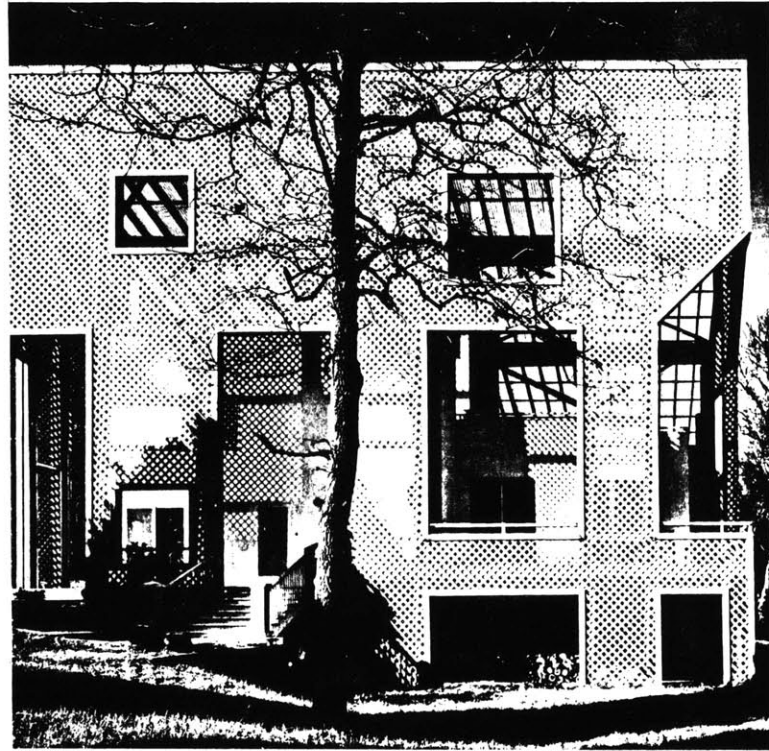
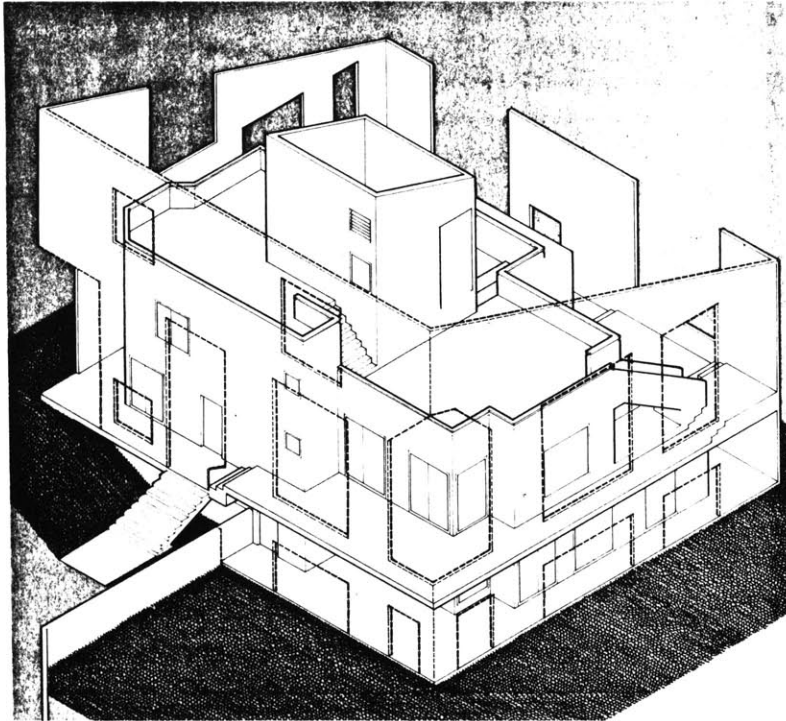
Punctured out openings in lattice frame views of landscape from house within



Play of light and shadow on the exterior stucco house structure (below)



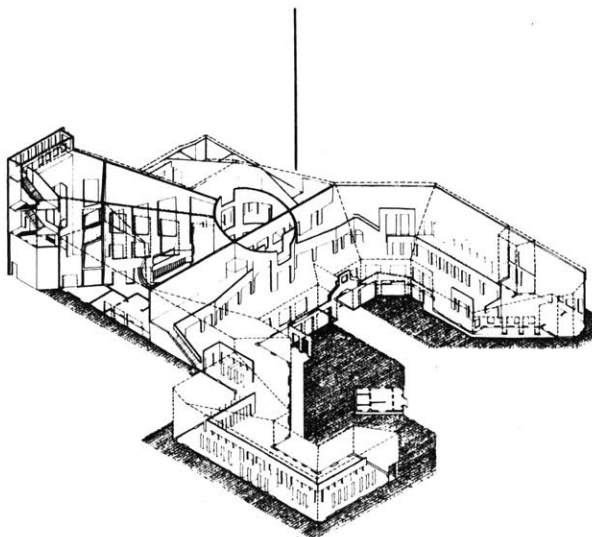
Interior stairwell and light tower (above)

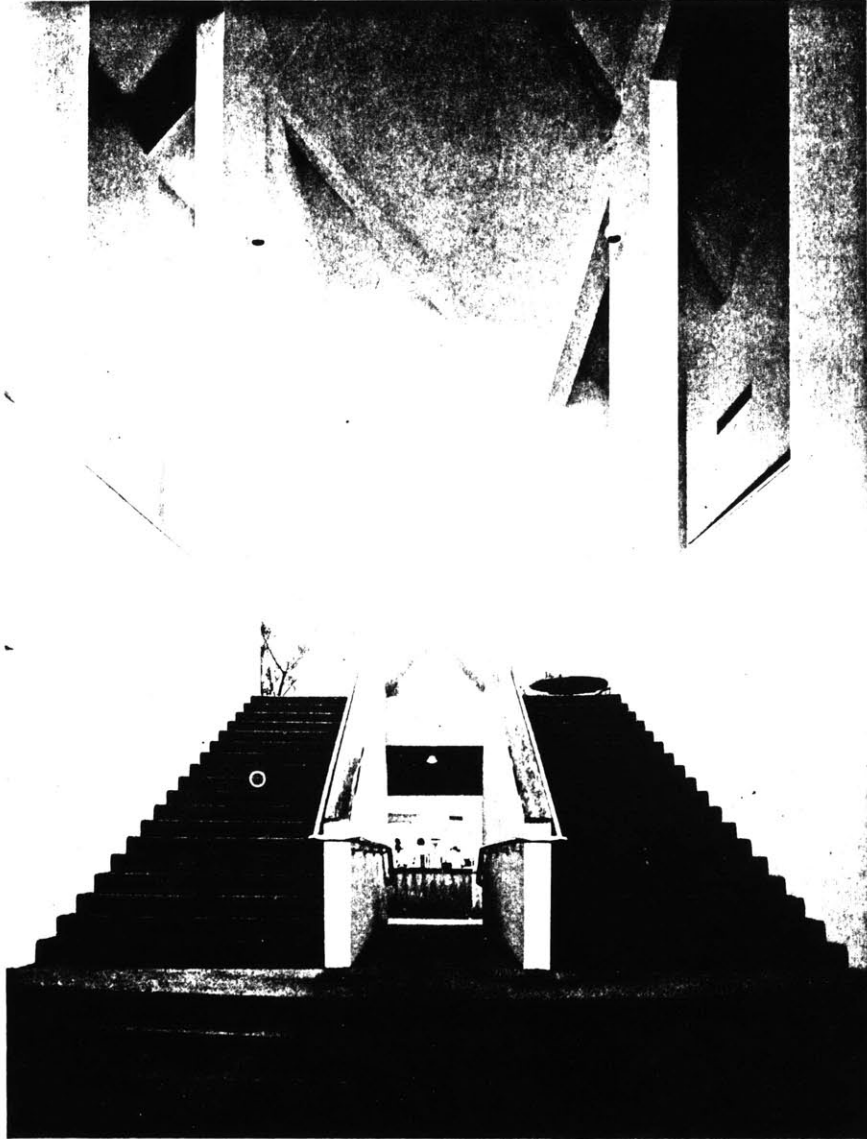


Partial transparency of the lattice porch façade (above)

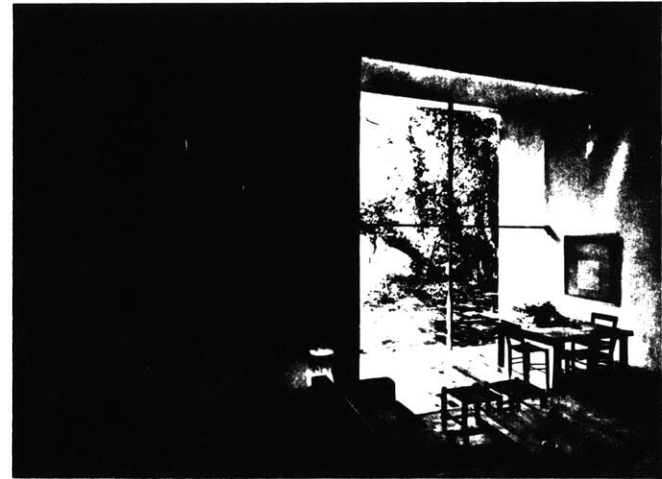
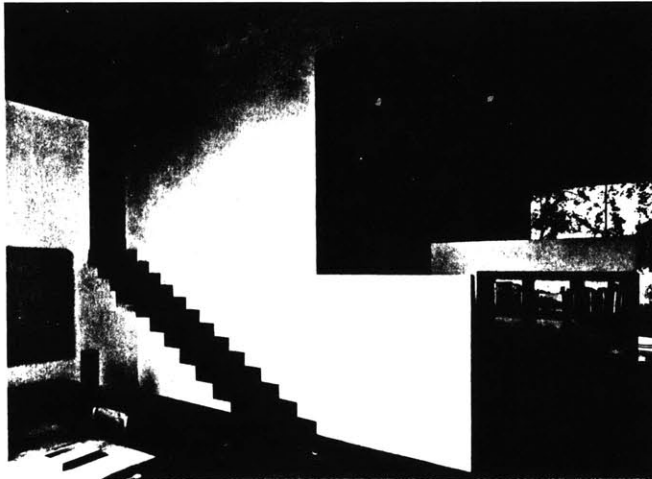


In Turnbull's library building in Mississippi he addresses the definition of place through the use of a number of devices. The task lighting on each table rather than overhead lights is used to define the individuals personal space, as are the specially designed vernacular wing back chairs he uses almost as one would use a window seat. Turnbull paints the undulating ceiling in cool pastel purples and blues to reinforce the feeling of cool retreat from the hot, bright exterior climate. The original library is rehabilitated and used as a visitors information center in the libraries plaza as opposed to installing a piece of vacuous sculpture.



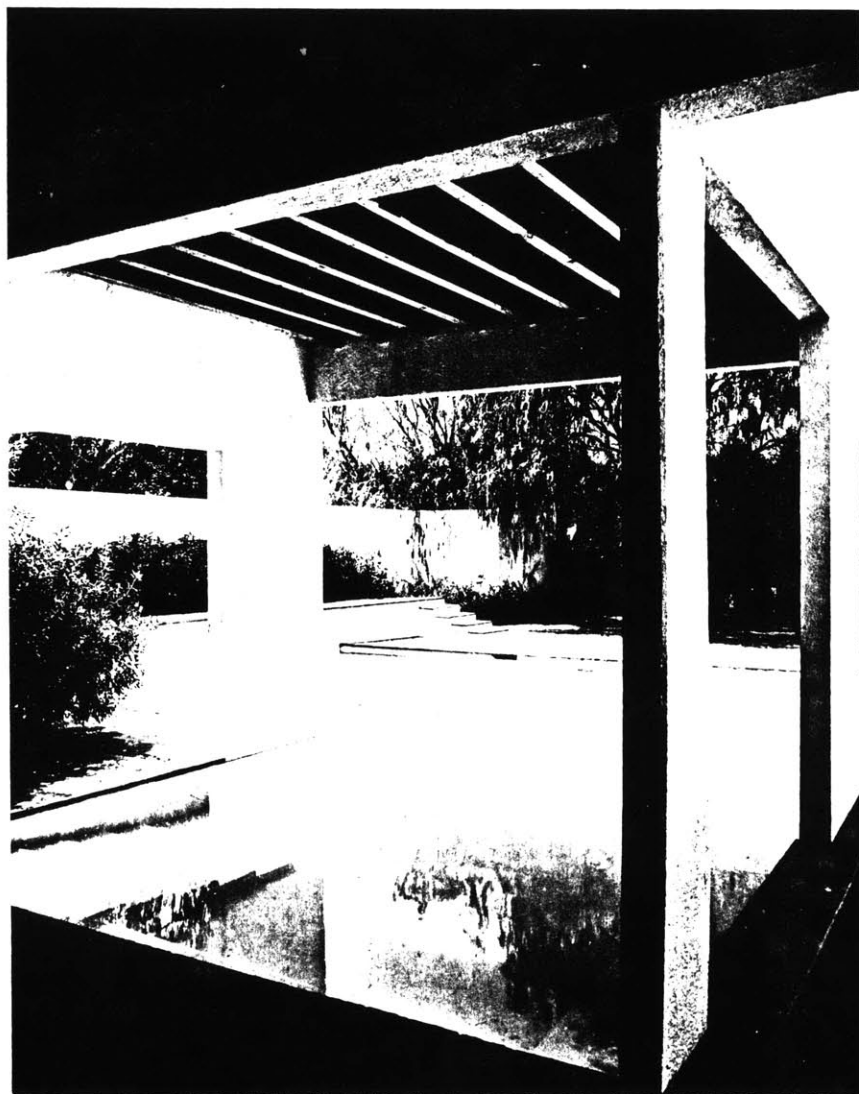
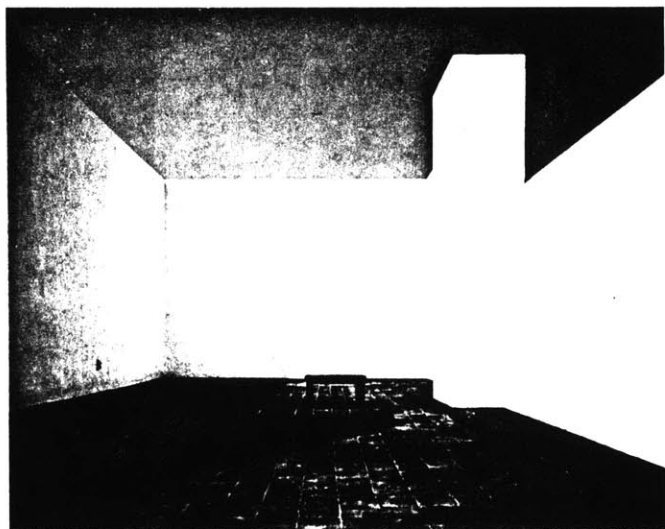
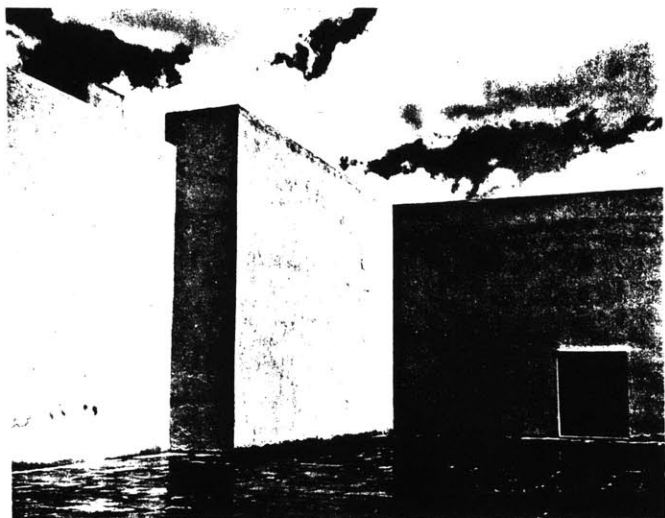


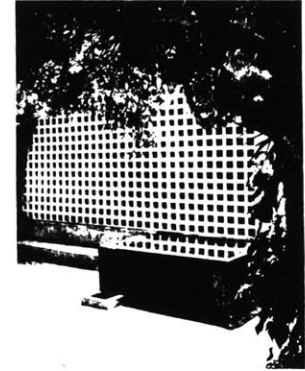
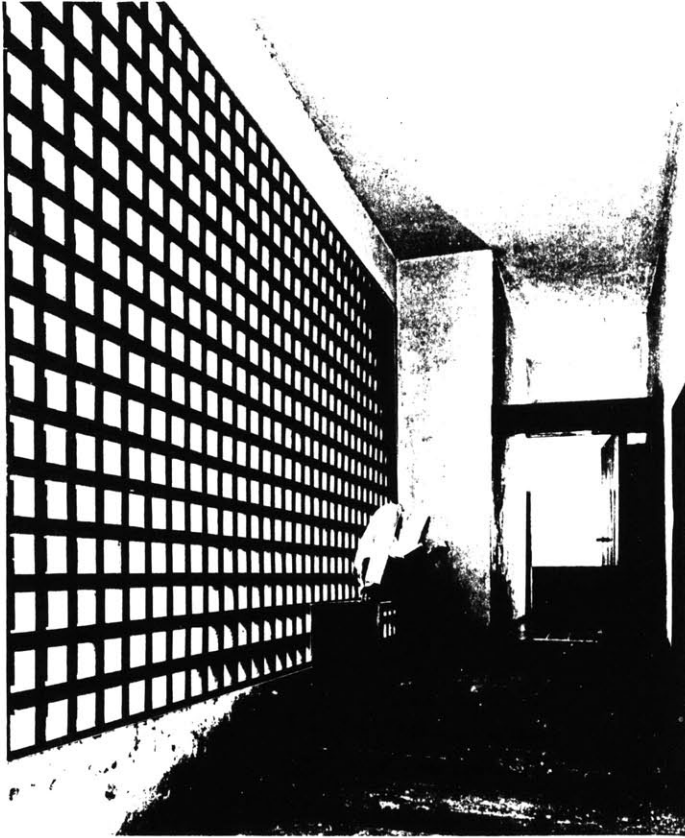
In yet another vein, the work of Luis Barragan provides examples of how, through the combination of the external environment with the internal and the dissolution of the line between the two an architect can construct buildings that set the stage for the emotional occupation of these spaces. This technique enables the spaces to be transformed, by the occupant, into places (constructed of his imagination).



In one instance the act of climbing a stair is celebrated and the attention given to the 'act' transforms the stairway from a necessary means of circulation into a place which then has an affect on the entire context in which the stair is perceived.

In another case Barragan's introduction of light, or rather his act of bringing the outside in, creates the place. Barragan uses the sky as a way of dissolving the physical boundaries he constructs. Though the walls are physically present, the way Barragan uses the sky to bring to the observers mind, as a reference, what lies beyond acts to dissolve the enclosure while still providing the occupant with the sense of being enclosed.





Also of obvious importance is Barragan's use of surface color which he uses as a device to encourage a designed emotional response from the observer, but possibly more important is his use of the colored surface as a way to color light. This light is then introduced into Barragan's interiors where he often mixes the effects and bathes his otherwise plain surfaces. In this way Barragan provides himself with a much subtler and more varied appeal to our emotions.

Examples may be found in many quarters, and these are only but a few. Successful architecture is only achieved when one has turned the spaces that the architecture defines into places that the occupants may meaningfully inhabit. This goal is usually achieved only when the object has been well integrated into the environment.

There are:

'Mute buildings,
buildings that speak.
And buildings that sing.'

Public "Place" and Imagination

Within the public environment - streetscapes, plazas, lobbies, parks, malls, public transit systems, etc. - the issue of place making, and how to go about it, is often more difficult. Those who are involved in the process of creating or maintaining these spaces generally do not wish to take on the responsibility for the activity of place making, nor are they willing to co-operate with the people who are interested.

General approaches are often squabbled over. When multiple groups are involved it becomes difficult to reach a consensus, and the process becomes "too expensive" as a result. All too often designers will resort to adopting and implementing the "standard" approach, if for no other reason the expediency.

A group that has recently taken a different approach, and whose work is full of implications for the designer who is seeking to address the ideas of meaning and place making, is SITE: Sculpture In The Environment. SITE is a group that has undertaken to break with tradition and interject their concept of fantasy into the real world of our day-to-day experience. The group's approach and their projects have elicited a wide range of responses. It is, in fact, difficult for someone, when confronted by one of their creations, not to have a strong response. It is not my purpose here to offer a critique of the various





16 JAMES WINES and S.I.T.E., *Indeterminate Facade*, Houston, Texas, 1974-5. An advertisement which trumps the glossy structures of the Houston strip by turning the dumb box into a construction (or demolition) site. Wines' jokes are meta-physically inspired; the crumble here shows the simultaneous existence of entropy and order. The public fascination with disaster and ruins is also a motive. The extreme contrast of BEST and 'worst' is no doubt also intended. (S.I.T.E.)



SITE PROJECTS

SITE is an organization composed of architects, artists, and technicians with the purpose of exploring new concepts of architecture and public spaces. Wishing to eliminate set conventions, SITE uses the term "de-architecture" to describe its philosophy, and its work is an endeavor to introduce humor, fragmentation, ambiguity, and disorder into its designs. SITE has built these retail showrooms for the Best Products Company, a large catalog-showroom merchandiser.

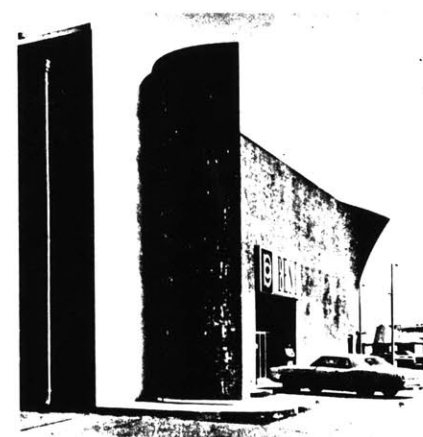
Top: Notch Project, Sacramento, California, with a "Wandering Wall" unit that moves 40 feet in either direction (1977).

Middle: Tilt Showroom, Towson, Maryland (1978).

Right: Peeling Project, Richmond, Virginia (1972).

FOREST BUILDING

This project, to be completed in 1980, will be located in a suburban site presently occupied by a dense forest. In a clearing area adjacent to a principal roadway there will be a parking lot; however, where the building threatens to destroy existing trees, the forest will be allowed to actually penetrate and envelop the showroom. This phenomenon will be hyperbolized by the surrounding suburb, giving the appearance of architecture invaded and consumed by nature.



projects, some of which I feel are quite successful, others not, but rather to use SITE and its work to point to a direction, or way of thinking about place making, which I feel is both healthy and exciting.

SITE is concerned with the involvement of the inhabitant. SITE attempts to involve the user in the space (thereby transforming it for him into a place) through the act of appealing to his imagination. SITE's projects do this both directly and indirectly, with the subject sometimes taking an active role, causing something to happen, and sometimes a passive role, witnessing an occurrence. Sometimes the work engages the subjects cognitive abilities by not affording him either of these two options, but only allowing him to assume that something happened, or will have to happen if what he is seeing is to make sense. In all of these ways, the space actually engages the subject and aids him in his transformation of the space into a place through the vehicle of his imagination.

Developers and other "rational" people often scoff at the suggestion that the need for the environment to stimulate our imaginations is important. They feel it is an unnecessary "extra" and too subjective. In this sense developers have been well served by the modern movement which has helped to eliminate from our environment many of the objects or places which might afford us the opportunity to add meaning through the



ST. 1951

active use of our imaginations. Designers trained in the modern style do not easily produce a suggestive or evocative environment, nor one that is easily enriched through imagination. This, in turn, is reflected in the public's unresponsive, un-inspired, acceptance of what is perceived by them as "dull", "cold", or "sterile" (our conception of ourselves is often measured in relation to our surroundings - dull environments make for dull people). There are many conservative developers who support the idea that the act of stimulating one's imagination, by means of the built environment, is a frivolous enterprise, unnecessary, and not at all important to our health or well being.

These developers and modernist builders would have us believe this to be the truth, when, in fact, it is anything but. One need only watch children transform a set of steel climbing bars into a tropical rain forest, then into a spaceship, then to an oceanliner, car, train, submarine, house, and finally back into a set of steel climbing bars, to realize the natural role our imagination plays in our involvement with our environment. As we grow older, the need for this activity may take on different forms, but it does not disappear.

If one needs further proof, let us stop to consider that it is not only the children of this country who each year swarm to places such as Disneyland, Disney World, or such creations

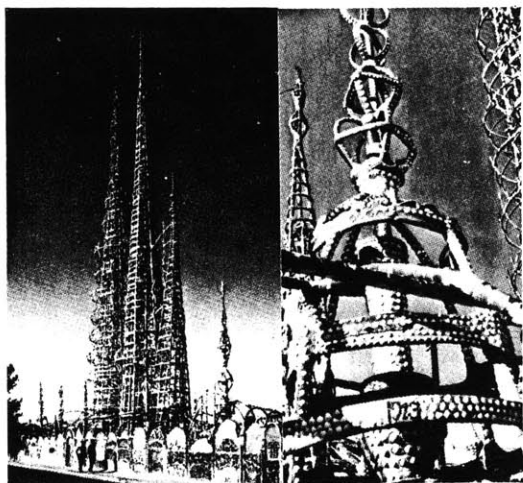
The profession has begun to recognize the role of fantasy as was evidenced in the recent design conference:

Fantasy In Architecture

"Making Dreams Come True: Design in Aid of Fantasy," was the title of this year's conference sponsored by the San Francisco Center for Architecture and Urban Studies and held in San Francisco, Feb. 4-7. The intent of the conference was to reverse the usual pattern of exploring ways in which fantasy enriches design and, instead, to inquire how deliberate design processes may serve the cause of fantasy.

Progressive Architecture 4:81

My idea of growing up is that the process consists mainly of developing a good case of mental tunnel vision and a grand ossification of the imaginative faculty. The change comes gradually, as logic and rationalism assert themselves. Kids are bent. They think around corners. Starting at roughly age eight, however, the boundaries of thought and vision begin to narrow to a tunnel until the child settles for the minor league version of the imaginative experience available at the local disco...or for a trip to Disney World. The imagination is an eye, a marvelous third eye that floats free but with age our vision dims.



as Watts Towers. On the contrary, it is their adult counterparts who demonstrate that the act of imagination and the job of providing us with places that invite its use, is a multi-million dollar business in this country.

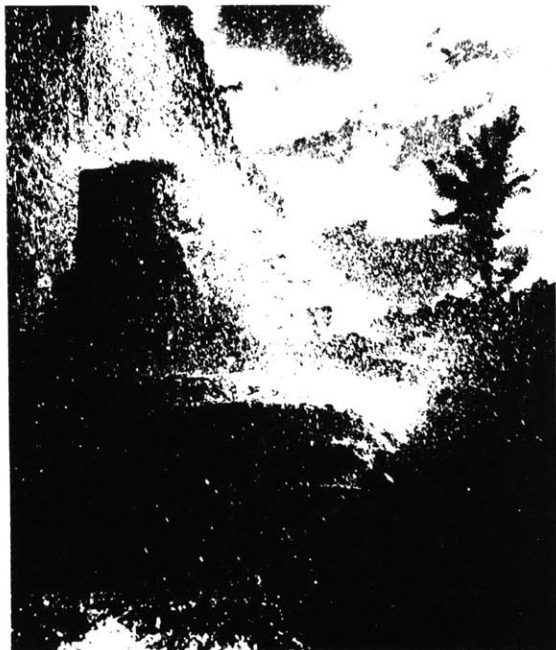
The notion becomes somewhat perverse if we consider that we have created the situation where we must travel great distances to specialized places and pay dearly for the privilege of being encouraged to use our imaginations. This situation exists, at least in part, because our everyday environment has been stripped of the means to satisfy this need in even the most basic of ways.

I do not mean to suggest that we would be better served living in an environment that was widely populated with the kind of work that SITE produces, or that is offered by a place like Disney World. I realize that these "unique" places take on significance and become meaningful in relation to their absence, or scarcity, in other parts of our environment (in part). But if the designer can recognize the necessity and importance of the role that these "unique" places play, and the amenity they provide, it should be clear that there is a necessity for him to introduce into our daily environment, at least in some small measure, physical form which has the potential to engage our imaginations.

The work of people like Lawrence Halprin is an attempt to address these sorts of concerns. Halprin's fountain designs begin to utilize these concepts by directly involving the users and drawing upon their powers of imagination. Halprin does not attempt to copy the natural forms that he views as his sources, but rather attempts to extract from these sources the qualities which describe their essence, their essential experience of place. He then creates forms which he believes transmute these essential qualities to the user, which recreates for him the essence of the place, both through a physical process and a mental one in which the user's imagination is called upon to fill in the voids.

While it is clear that many of Halprin's installations and the qualities inherent in them serve clearly functional purposes, such as creating masking noise through the use of falling water, they also make a first attempt at developing the





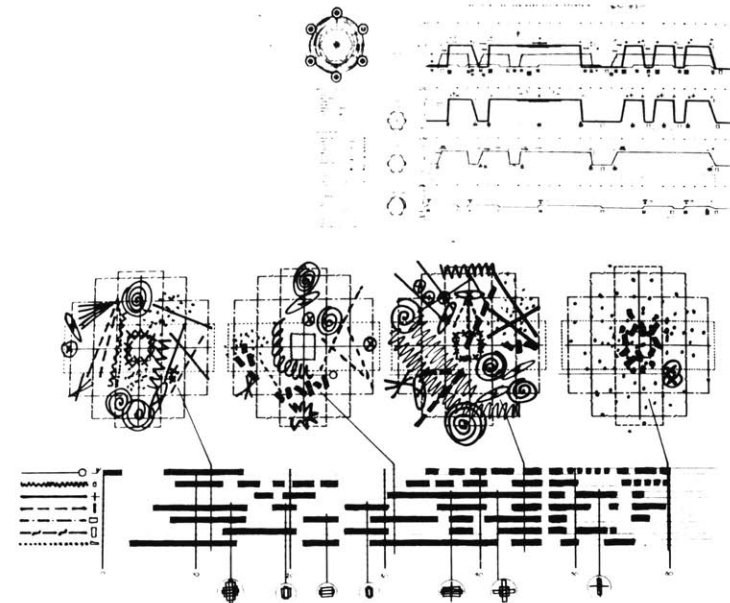
link between us and our environment through the use of our imaginations. What is also important is that Halprin's work achieves this purpose while remaining within the boundaries of everyday experience. In this respect his work represents a more subtle attempt than, for example, the work of SITE.

We see in Halprin's work the attempt to generate forms, and sequences of experience, which prompt the user to conjure the emotions (fear/excitement, etc.) that might be felt if one were experiencing the sources first hand, in the context of the environment where they naturally occur. It is this idea of the transfer of emotion that is important for the designer. Once it is understood, the less traditional creations of a group such as SITE can be viewed in a more illuminating light. Lessons can be taken from these untraditional sources and designers can begin to expand their ideas about what sorts of actions are appropriate and worthwhile.



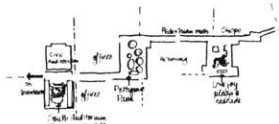
The Portland fountains were designed as waterfalls exhibiting the natural water qualities of many of the magnificent cascades along the Columbia River and in the High Sierra. The bases for the designs were large numbers of study sketches and photographs of natural watercourses made by the author while on backpacking trips in the high country. These fountains, however, are based on an understanding of the qualities and processes of water and are not merely imitations.

Another concept pioneered by Halprin that has important applications with regard to place making is that of "scoring". This idea evolves from Halprin's acknowledgement that places are formed of spaces and events over a period of time. Scoring is an attempt to influence and manipulate these sequences towards some desired effect, or to introduce "purposeful variation" into the experience. Scoring generally involves an organized plan that controls or describes a series of actions or events that are to take place over a specified period of time that is described by the score. In short, a score is an acknowledgement of the importance of time and sequence as a

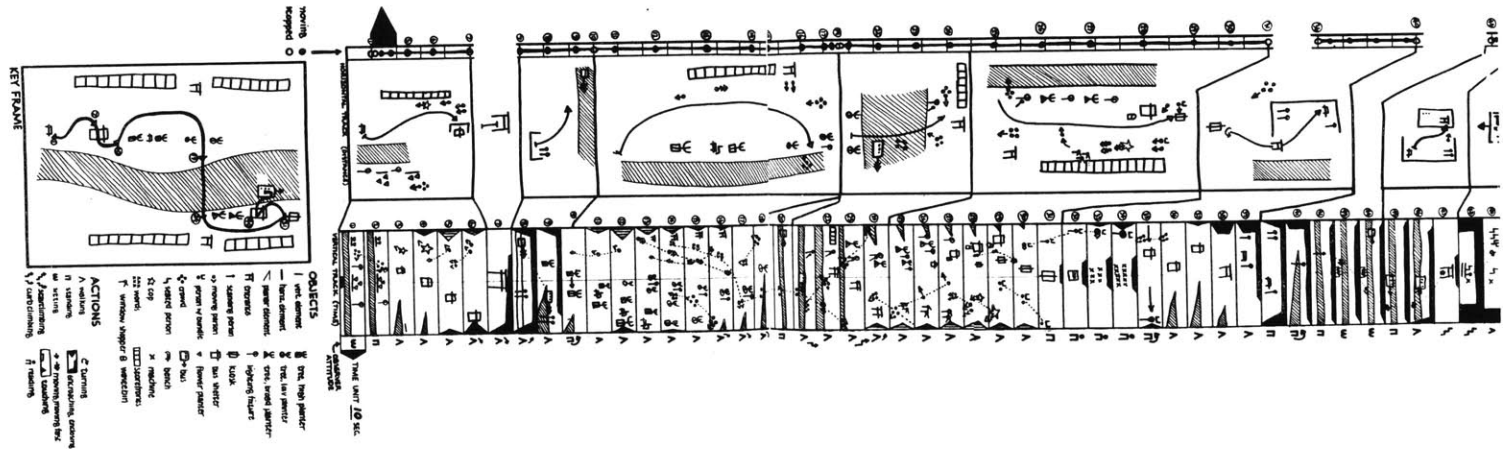
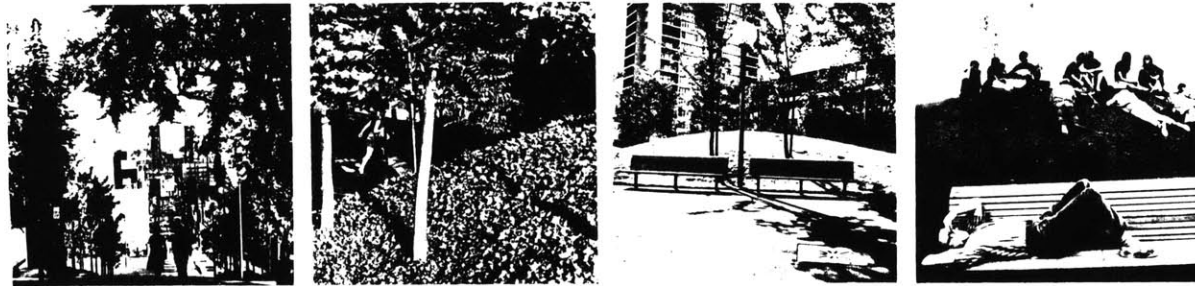


substantive element of experience. Rather than treating the element of time as static, as much of modern architecture and planning attempts, the work reflects one mans attempt to acknowledge the transformational qualities of time and use them purposefully. Whether one agrees or not with the ways Halprin physically accomplishes this is irrelevant. What is important is the basis of the idea and the implications it holds for place making.

PORTLAND OPEN-SPACE NETWORK



528 The sketch plan of the Portland sequence (528) shows how Lovejoy Plaza (518-527), Pettigrove Park (530-532), and Auditorium Forecourt Fountain (533-543) are connected by malls and promenades (529), forming a complete open-space network.



Cost and Effect

The argument has long been used that the cost involved in the activity of place making is economically prohibitive and is not warranted by the returns it is likely to provide. One need only look to some recent examples to see that this is not the case. Take, for example, Boston's Quincy Market. While Quincy Market is only a limited narrowly focused attempt at the utilization of the concept of place making it has acquired the image of having been very successful.* The Market's acceptance may be due in part to the absence of similar attempts elsewhere at the time of its creation, and the area may not endure over a ten to twenty year period, but Quincy Market does demonstrate that even a minimal attempt at place making can produce economic returns well in excess of the costs of development.

It is clear that individual, or small scale efforts at place making in various spaces throughout a city will not always directly result in an economic return to those areas. In many cases, these efforts may not even offset their costs. They may indeed, however, enhance the quality of the space and experience of those who inhabit the city. Ways must therefore be found to channel some portion of the profits realized from the larger scale more profitable projects, to these smaller ones. The idea may not be a popular one amongst developers

Much of Quincy Market's "success", or appeal, is derived as a result of the kind of experience I described earlier as a haptic experience. The Market gains much from the activity and minimally from the physical surroundings. The physical surroundings contribute, but not as a result of their form, or even content, but rather as a result of the activity generated by the functions housed in the Market. This atmosphere is then further enhanced through 'scoring' with the addition of activities and street performers.

The Market area succeeds in its overall effect of generating new revenue but many of the small commercial retail establishments housed in the Market area find it difficult to remain in the black.

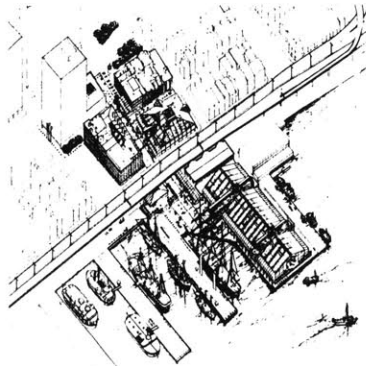
In many ways it is the image of the Market which is the greatest success, quite often far beyond its reality.

News report continued from page 25

**South Street Seaport:
son of Quincy Market**

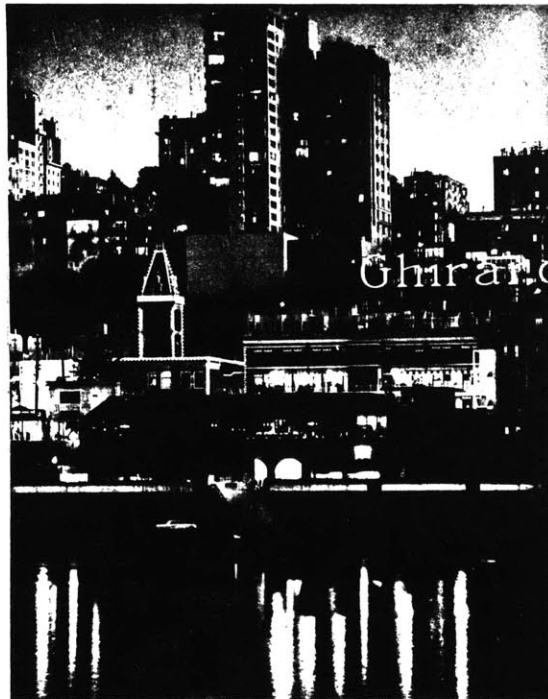
The recently announced plans for a major commercial development for New York's South Street Seaport involves the city, state, a private, nonprofit museum, and a commercial developer in a development package which may advance urban development mechanisms—the subtle negotiating of private profit and public benefit—but takes urban design—the physical outcome of those negotiations—a step back.

The South Street Seaport Museum's idea was to engage the Rouse Co. of Columbia, Md. to create a development whose commercial success would guarantee the future of the institution, thus assuring the preservation of the historic properties leased by the museum from the city. This piece of innovative thinking will have great economic benefits for Rouse, the museum, and the city, in that order. But the physical plan includes a 900,000-sq-ft



Rouse proposal for the Seaport adds two Thompson-designed pavilions, an office tower

Another successful development of this type is Ghirardelli Square. While developments such as Quincy Market or Ghirardelli Square are often considered to be successful in an economic sense or successful from an urban design point of view a designer must remember that the successful design elements of any particular project should be considered as unique to its setting and not necessarily transferable. Designers and developers must resist the temptation to simply duplicate successfully designed developments, en masse or in part, and then attempt to transplant them into other urban settings that are made up of new circumstances, that have new problems and new opportunities.



**GHIRARDELLI
SQUARE**



In their original form, Ghirardelli's brick buildings housed a famous old Italian family's chocolate factory (494). The tower brought images from the old country to the New World. Ghirardelli today, converted to new uses, preserves the traditional landmark tower and puts the old buildings to new uses. The drawing above describes the first conception (493) as proposed by the author to William Roth, the enlightened developer who conceived Ghirardelli Square. Parking is dug out underground, and a series of rising levels of terraces and open spaces cascades down the "hill." There is a cacophony of uses—many restaurants, innumerable shops, theaters, galleries, movie houses, and displays (492). The sensitive architectural remodeling is by Wurster, Bernardi & Emmons.



(494-499) In addition to its multiplicity of uses, Ghirardelli Square was designed to be fun to be in. One of the great achievements is "people watching," and young and old come here to sit in the sun, eat in the different restaurants, listen to music, and watch each other. The many levels are connected by steps and ramps and balconies and are filled with places to sit, plantings, fountains, and sculpture. In the distance are views of the bay, and cars are excluded.

and therefore not easily achievable, but the developers must be encouraged (or coerced) to return to a city some of those profits which they gain. It is the city's responsibility, or the designer's, or both, to provide developers and builders with clear and reasonable ways of achieving this.

One recent reflection of this need for a straight forward means can be seen in attempts to use the 1% or 2% for public art ordinance. Such ordinances provide all parties concerned with a clear understanding of dollar commitments at the outset of a project, a situation which developers prefer to hidden or vague provisions that may crop up at later stages of the development process. As yet, there has been little done towards suggesting methods by which these funds can be most efficiently and affectively used, and this is currently the most critical issue with regard to how these monies might be utilized for place making activities. Whether these monies are to be used to create integrated, meaningful additions to our environment, or only a series of "artistic" objects scattered about an otherwise barren urban landscape, is now within our power to decide. It is an opportunity that should not be ignored.

While per cent for art ordinances generally apply to situations involving new construction the attempt must also be made, by the designer, to utilize them in the cause of re-

habilitation work. Ordinances must be written in such a way that the monies they generate can be spent where they will do the most good. The rules governing disbursement or the definition of what constitutes public art cannot be so rigid as to be closed to new interpretations, given new situations, or restrictive of action. It is the spirit of the ordinances - to invest meaning through the inclusion of art - that should remain paramount in the minds of designers and funding agencies if any progress is to be made. Only in this way, a primarily individually initiated and supported, yet cumulative way, that we can begin to change the face of a large part of our everyday environment through the activity of place making.

Where to Begin

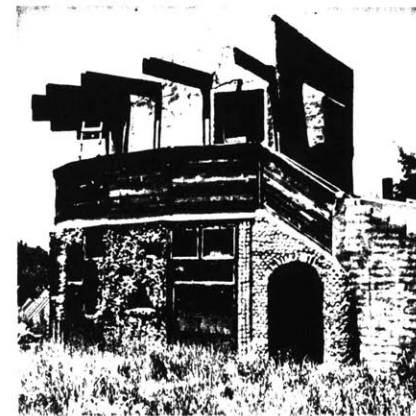
Where, and how, does the "informed" designer make his presence felt. Grady Clay, in his current work, suggests we look at aspects of the built environment which inherently possess certain "imperatives" we cannot ignore.

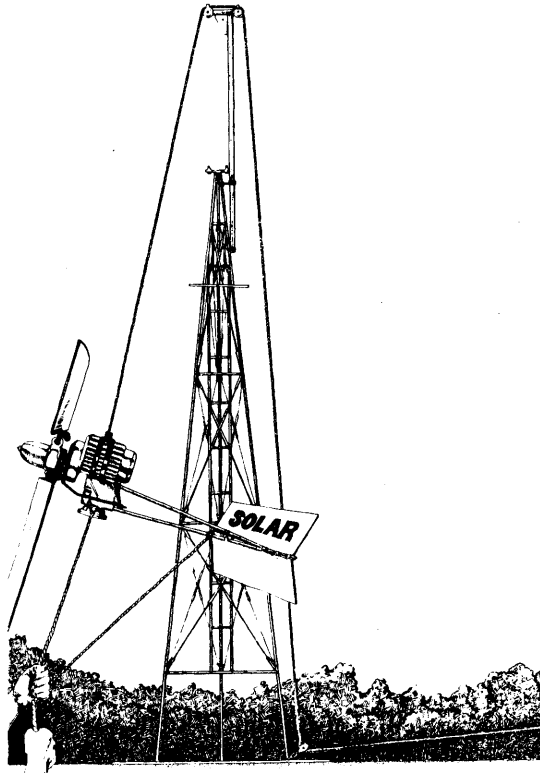
"Landing Zones" are places in the environment that in Clay's view, have served as points of entry for populations seeking admittance into new territories. In the past these zones have been characterized as "blighted" urban areas, possibly as ethnic enclaves, that have allowed immigrants to settle and develop the support systems necessary for their survival. What are the actual essential qualities, the qualities of place,

that these landing zones have had in the past, or will need to have in the future, which will allow them to carry out this necessary function of serving as points of entry?

If we are serious about the rehabilitation and rehabilitation of our cities, this issue is one that must be consciously addressed by those designers who will be attempting to re-introduce our current day "urban immigrants" into city life. Will we fall victim to a process of attempting to introduce "mini-suburbs" into our urban fabric? What of the process of "gentrification" and its inherent class struggle and social conflicts? How are landing zones different, and therefore in need of different design actions, when they occur in rural, or more isolated, parts of the country? What are the factors of proximity, or isolation, that determine and support this action, and how are these processes best able to be controlled? These are all issues that the designer must consider and on which the concepts of meaning and place have direct implications.

There are other issues that Clay mentions which I would term "survival imperatives". One of these is the conservation of existing natural resources, whatever their form, be they buildings or fuels. Another of these issues is the recycling of what we now consider to be waste materials. These issues have direct implications for the designer whose job it should





be to integrate the concepts of meaning formulation and intervention, such as "place making", with such architectural and design considerations as rehabilitation, downtown revitalization, regional land use planning, solar energy sources, neighborhood formulation, locations for new rural development, preservation of natural resources, coastal zone management, etc.

It is clear that we cannot afford the luxury of making the kinds of mistakes we have made in the past. We can no longer "cut our losses" and move on; the places to which we can move on to have become too few. The permanence of each new blunder we make is approaching the point of being irreversable.

The issues necessary to our survival are the issues designers must regard as most deserving of immediate attention. Though these issues may be replete with conflicts, it is the process of the resolution of conflict, that lays the foundation for the formulation of meaning, both in our environment and in our lives.

It is within the set of issues which hold the greatest potential for man's survival, that designers can find the greatest potential for generating meaning. It is also this set of issues which affords the designer his most challenging, and certainly the most imperative, test of his ability to invest the built environment with meaning.

Directions

As it is with the case of "meaning" itself, there are no absolutes when it comes to strategies or implementation techniques. What is necessary is a belief in the necessity of meaning in our built environment, an understanding of how it comes about, and a flexibility that is grounded in, yet not bound by, particular beliefs about the appropriate role of design.

As a profession, however, design is at a singularly unique stage of development. We have become aware of the shortcomings of the "modern movement" and we find that the "post-modernists" have begun the erosion of some of our earlier ideals. In many ways the post-modernists have called attention to the gap that has existed between the practice of design and the reality of its effects. This gap is what has been responsible for the absence, or warping, of meaning within our built environment.

I feel that the post-modernists have drifted away from their original aim, the introduction of meaning, and while they have been instrumental in calling attention to the existence of this gap they have not and will not fill it.

While it is clear that some of the conflicting aspects of meaning will likely never be resolved, through design or any other means, it has been my attempt here to suggest ways that



might begin to close the gap existing between people and their environment. This change can be effected through the design profession, but only if designers enlarge the scope of their concerns, to give priority to the creation of places with meaning.

The topic of meaning is elusive. No single answer can be offered. It is clear that designers have not ignored the problem but often in their various pursuits have side stepped the issue, especially the issue of meaning for whom. However, meaning does originate somewhere, it does evolve through a process or number of processes which should be subject to study, and it is the designers responsibility to at least make an attempt to understand these processes.

It is the designer's responsibility to produce a product that offers the greatest amount of amenity possible. This goes beyond function to include all the intangibles, of which meaning is one. In my view this holds the designer accountable for providing as much as is possible to as many as it is possible.

The designer needs to expand upon his role as communicator of potentials and take a more active part in the education of the general population with regard to their environment. The public needs to be informed as to who it is that presently has control over environmental decisions and how the results of these decisions effect them at the local, state, regional, and national level.

Architects are charged with the task of making on this planet places, places for both the body and the mind, places that help people fully to discover where they are. People and the places they inhabit are both literal and figurative. So it must be true that for design to be reflective of these, expressive of these, it must itself be varied. Architecture in the 1980s needs to learn to speak in many different tongues.

The public needs to know who and what can cause them harm or bring them benefits within the course of their everyday experience with our environment. They need to be informed as to why, how, and where to apply the pressure of public support or public disapproval, but most importantly the 'why'.

The role of designer as environmental educator is becoming more necessary in order to combat the results of the technical world in which the average citizen is so bombarded with technical jargon and untruths that he has relenquished his belief that he can make an informed choice or that his choice has any significance.

I have attempted to show that to affect meaning it is necessary to influence people's values. I believe that it is now time for the designer to become involved in the business of influencing our values about the environment, our expectations of what is possible, what is necessary, and what it is we deserve from our environment, to a greater extent than he has ever been involved before. In order to accomplish the process of informing and educating the public the designer may find it necessary to put down his pencil and redirect his energies towards production in the television studio.

With the advent of multi-channel and interactive cable television systems the necessity for programming will grow at such a rate that it will become feasible for the designer to reach large portions of the public that were heretofore unreachable in a new and participatory manner. It is in the design professions best interest to

begin to investigate the educative potential of this new media as well as expanding upon present efforts directed at environmental education, participation, and community involvement. The designer must adopt the role of educator whenever and wherever possible.

As well as encouraging understanding through education, and thereby influencing meaning, designers must acknowledge their solutions as not being the only solutions, nor their intended meanings as the only correct meanings. Designers, whenever possible, must employ the principle of "loose fit" which encourages multivalent design approaches and places a demand upon the designer to produce evocative physical cues within the environment. In this way the designer will not be forcing his own particular conception of meaning upon the user of a space but rather be suggesting his own view while still allowing and inviting the user of any particular space to participate in the formulation of that spaces meaning. In this way the designer will aid the user in the transformation of space into place.

It is obvious that designers who are interested in the ways in which meaning evolves must also be interested in the ways in which the transformation of space into place occurs. Designers who are interested in effecting this transformation from space into place within their own work must first consider the creation of 'place' to be as important as other concerns such as function or budget. The adoption of this kind of an attitude is the necessary first

step. Designers interested in creating meaningful places might then continue by investigating ways of evolving a design process that becomes a structured organized system of meaningful variations, likeness (structure) tempered with difference (variation).

I have suggested some ways this might be achieved: through the expanded process of user participation, through the re-introduction of the craftsman in a more contributive role within the process of creation, or through the further study and application of the process of place making. These are only suggestions and the way these activities might be applied by the designer to influence his own work are only hinted at in my presentation. I have merely suggested directions to pursue for the designer who is interested in investigating his effect upon the process by which we affix meaning to our built environment.

In the past, the designer's pursuit for reason has often been counterproductive to his ability to develop shared or evocative meanings within the products of his creation. Our imaginations have not been mined by the designer in a pursuit to develop meaning within the built environment. The designer has stopped with "facts" that he has known about and has seldomly or reluctantly called upon things which he knows (feels to be true), but cannot prove. Intuition has taken a back seat to "scientific fact." I believe it is necessary for the designer interested in the development of meaning to place fact and intuition on equal footings

"What is missing from our dwellings today are the potential transactions between body, imagination, and environment. It is absurdly easy to build, and appallingly easy to build badly. Comfort is confused with the absence of sensation. The norm has become rooms maintained at a constant temperature without any verticality or outlook or sunshine or breeze or discernible source of heat or center or, alas, meaning."

cited from:
Body, Memory, and Architecture, p.105

and to call equally upon the two.

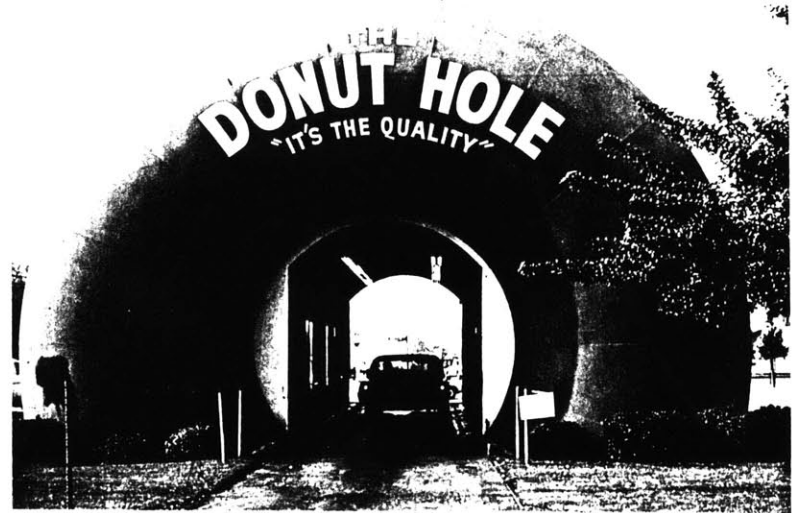
Much of the intuitive experience of we humans is described within sources which are generally considered to be outside of the designer's area of expertise, outside of the circle of influences that affect his actions as a designer. I believe the designer must expand this circle and seek the intuitive experiences recorded in fields such as literature, poetics, philosophy, mysticism, etc., to act as indicators of personal feelings, emotions, and states of mind whose existence and process of formation do more to effect the meanings of a place than do the physical meanings of a place than do, perhaps, the physical pieces of form designers insert.

All these areas, environmental education, participation/inclusion of craftsman, multivalent design processes, place making, inclusion of imagination and intuition, and the expansion of sources of information are areas that I feel offer the designer the greatest potential for effectively formulating and utilizing meaning within his process of creation and its resultant form, and are all areas that my study of meaning suggests demand further investigation.

Initially designers need to direct their immediate efforts at the situations that I have outlined as representing "survival imperatives" (ie. solar energy sources, waste recycling, rehabilitation, preservation, nuclear waste containment, etc.). The der-

ivation of meaning in the forms that result from designers taking action in addressing these issues will be grounded in concerns that speak to our continued existence on the planet and will inevitably possess meaning.

ARCHITECTURE AND TOWNSCAPE = BASIC
PERCEPTIONS + EMOTIONS + MEMORY +
ANTICIPATIONS + EVALUATIONS + IMAG-
INATION + MEANINGS



EPILOGUE

The presentation offered here does not demand a new theory of design so much as it does a new attitude, an attitude that has important implications towards new theories concerning design. It is a call for further investigation. It is an attempt to awaken new attitudes, and create new questions, about meaning in design. This thesis is undeniably a product of the time in which the design profession finds itself, and of which I find myself within that profession. It is my attempt to make sense of my past and establish a base from which my personal direction, within the design profession, may embark.

It should be viewed as such - as a beginning.

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