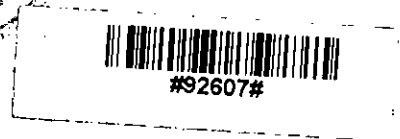


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"CONTEXTUALITY"

LOUIS I. KAHN'S WORK IN THE SUBCONTINENT

NURUR RAHMAN KHAN



This thesis is submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Master of Architecture
July, 1998

Department of Architecture
Bangladesh University of Engineering and Technology
Dhaka, Bangladesh.

DEPARTMENT OF ARCHITECTURE
BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY
DHAKA -1000.

On this day, 31st July, Friday, 1998, the undersigned hereby recommends to the Academic Council that the thesis titled "**Contextuality - Louis I. Kahn's work in the subcontinent**" submitted by **Nurur Rahman Khan**, Roll No 9007, Session 1988-89 is acceptable in partial fulfilment of the requirements for the degree of Master of Architecture.

Professor Faruque A.U. Khan
Dean, Faculty of Architecture & Planning
Bangladesh University of Engineering & Technology

Chairman *Faruque Khan*

Professor Khaleda Rashid
Head, Department of Architecture
Bangladesh University of Engineering & Technology

Member *Khaleda Rashid*

Professor Meer Mobashsher Ali
Department of Architecture
Bangladesh University of Engineering & Technology

Member *Meer Mobashsher Ali*

Professor Dr. Shahidul Ameen
Department of Architecture
Bangladesh University of Engineering & Technology

Member *Shahidul Ameen*

Professor Dr. Golam Rahman
Dept. of Urban & Regional Planning
Bangladesh University of Engineering & Technology

Member *Golam Rahman*
(External)

TO MY PARENTS

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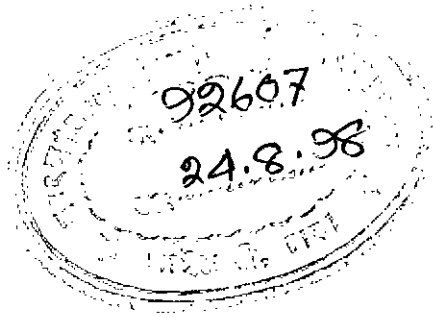
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ABSTRACT

Kahn's works in this region is often underestimated and not properly appraised. A very important aspect of his works is its contextuality – even though its architectural manifestation is extremely modern, idealist, and timeless. It thus becomes crucially important to understand Kahn's work in the aspect of "context" so that we may also be able to perceive context in a more profound manner instead of subjective to elemental presentation and cliché in order to uphold regional values in terms of culture and religion in an attempt to be regionalistic. Kahn's work in the region is rich in the understanding of place, climate, history and culture – yet it goes on to deliver an extremely universal architectural language rich in values, ideals and vision and gifted with the quality of timelessness.

This study takes a close look at the events and background of the projects in the region, Kahn's understanding of the context of the project – his manifestation of context, and his philosophical standpoints. Thus the study provides direction in order for us to embrace greater architectural values and uphold context in difficult times, when it is easy to lose focus and external pressure leads to confusion. The validity of his understanding of context has been discussed by bringing in references of modern philosopher and theoreticians. His own views have been highlighted in the study. Finally, the study also provides a better understanding of Kahn's work in the region in terms of context so that we can learn more from them. It is not an attempt to question "how well" or "how much" but rather a serious discussion attempted to bring out how Kahn perceived "context" in order to try to appreciate it and learn from it.

INTRODUCTION



" We are all born with a sense of what to do.

Within our own singular limits we know instinctively that, given a sufficient opportunity to put this instinct into practice, we know what to do almost instantaneously, if what we do is true to our singularity.

- Louis I Khan.

It was Kahn's continuous faith in the "sense of what is right and "singularity" that guided him in developing his own context of things. This is an attempt to understand his "sense" and his "singularity" that forms his approach towards architecture- which in our time today could give direction in the maze of confusion that often compromise architecture and deprives it from its greater values.

Probably one of the greatest dilemma of the modern architect of the later era was the question of regionalism.

Some went on to develop the 'international style' void of all regional value, in their minds a "global modern concept of development"-not weakened by regional and cultural cliché.

This led to the development of post modernists-who went on to search for "heritage", "memory", "culture" "continuity" and their position in architecture.

In this war of classes, the ideal of regionalism were adapted in many places such as India, Pakistan, Iran, Egypt, Jordan, Srilanka, Turkey, Bangladesh etc.

Regionalism satisfied many needs, but did not account for architecture in a universal –timeless art form.

This continuous mental struggle of universal and particular is not to be handled lightly.

In lesser hands it demonstrates either lack of sensitivity and faceless mediocrity- or fixation, backwardness, cliché and superficial ideas.

Our region was not an exception from this.

The faceless mediocrity, the part colonial syndrome and the cheap cliché that often take form in the name of architecture around is a demonstration of inability to address architectural issue with clarity, sensitivity and vision.

But again it is in this region that Corbusier and Kahn have performed without any shortcomings. --- No "post colonial syndrome" no elemental implants, no superficial historicism- and above all no short coming of the issues their work were to address in a timeless abstraction.

Their work has led the way for the next generation into greater understanding of context and architecture.

The purpose of this study is to go through Kahn's understanding of context and how it is exemplified in his work in the region.

In turn this will not only develop a better understanding of his work but also demonstrate ways to address issues in architecture with greater sensitivity and vision.

The methodology of the study incorporates extensive literature survey of Kahn's philosophy and work, literature survey of relevant theorists, field trips to all his projects in the region, discussions and interviews of architects in the region who knew him and worked with him, and detail study of his projects in the region regarding their context.

The organization of study is as follows

First the study will put forward the philosophies of David Hume concerning human understanding and Immanuel Kant's guidelines concerning metaphysics and pure concepts. From these chapters we will be able to form an understanding of "origin of ideas", "connections", "judgement" -all which will guide us to perceive context and its character and judge its validity.

The next chapter concentrating on Christian Norberg Schulz's writings on "place"- will concentrate on the "spirit" of place, an understanding beyond its mere physical dimension.

The study will then proceed on to highlight Kahn's philosophy specially those relevant to the issue of context. These will then be overlaid on the theories of Hume Kant and Schulz which clearly establish the basic philosophical validity of his theories. Once done that the study will go on to evaluate on Khan's work in the region and their context according to Kahn.

One must understand that the aim of the study is not to prove or disapprove or to evaluate the extent of the contextuality of Kahn's work, but to search for references in Kahn's own words of his understanding of their context and manifestation in design- which could give us an insight of Kahn's sensitivity and profound understanding and provide a different direction to evaluate and express context in architecture.

CHAPTER 1

"AN INQUIRY CONCERNING HUMAN UNDERSTANDING"

David Hume (1711-1776) who was born in Scotland, is the greatest philosopher ever to write in the English language. He studied at Edinburgh University, where he brought into existence the plan of writing an entirely new, systematic, complete theory of human nature. The understanding of "Context" deals with the very basics of "human understanding" as it concerns perception, understanding and deduction. In order to understand "understanding" this chapter looks into the work of David Hume, whose work on "ideas" and their "origin" and "human understanding" remains an authority in modern philosophy.

This chapter is a brief insight into David Hume's philosophy of human understanding.

Hume's concepts of 'memory' "ideas" have generated many further research into the field and also sparked many debates. Hume's still remains as a source for anyone venturing into the field of "understanding".

Since "context" greatly deals with the understanding of context and its interpretations- it is important to have some insight into Hume's work because Hume's ideas will help us to understand how we form our "ideas" and what inference our "ideas" depend on.

The following extracts from Hume's work also help us to look and have a philosophical view of "understanding" which is vital to be able to comprehend the philosophical view points that Kahn takes towards architecture.

It is from this philosophical premise and standpoint that Kahn approaches issues and reflects his thoughts.

"Moral philosophy or the science of human nature may be treated after two different manners, each of which has its peculiar merit and may contribute to the entertainment, instruction, and reformation of mankind.

The one, considers man chiefly as born for action and as influenced in his measures by taste and sentiment, pursuing one object and avoiding another according to the value which these objects seem to possess, and according to the light in which they present themselves.-----The other species of philosophers consider man in the light of a reasonable rather than an active being and endeavor to form his understanding more than cultivate his manners. They regard human nature as a subject of speculation, and with a narrow scrutiny examine it in order to find those principles which regulate our understanding, excite our sentiments, and make us approve or blame any particular object, action or behavior. They think----that philosophy should not yet have fixed, beyond controversy, the foundation of morals, reasoning, and criticism, and should forever talk of truth and falsehood, vice and virtue, beauty and deformity, without being able to determine the source of those distinctions."

[1]

As we can see neither fraction of philosophers base human understanding as an isolated feature void of a sentiment and value system and perception.

OF THE ORIGIN OF IDEAS

Of the "Origin of Ideas" Hume comments-----

"---we may divide all the perceptions of the mind into two classes or species, which are distinguished by their different degrees of force and vivacity. The less forcible and lively are commonly denominated "thoughts" or "ideas." The other species want a name in our language, and in most others; I suppose, because it was not requisite for any but philosophical purposes to rank them under a

general term or appellation. Let us therefore, use a little freedom and call them "impressions," employing that word in a sense somewhat different than the usual. By the term "impression," then I mean all our lively perceptions, when we hear, or see, or feel or love or hate, or desire or will. And impressions are distinguished from ideas, which are the less lively perceptions of which we are conscious when reflect on any of those sensations or movements above mentioned." [2]

One can place the understanding of context at the level of "impression"-an understanding beyond whim or thought. As we can see this premise of understanding cannot be formed without basis-it is from this point that we go on to conceive the "newness" of an idea or an idea without "context". An idea without "context" is virtually a misdenomeur and when we deliberately disregard these impressions we force ourselves to settle for an "idea"-which from its inception being much less forcible and greatly singular.

Let us now move onto - form an understanding of the origin of "ideas". - The following extract from Hume's work will elaborate how "Nothing, at first view, may seem more unbounded than the thought of man, which not only escapes all human power and authority, but is not even restrained within the limits of nature and reality. To form monsters and join incongruous shapes and appearances costs the imagination no more trouble than to conceive the most natural and familiar objects. And while the body is confined to one planet, which it creeps with pain and difficulty, the thought can in an instant transport us into the most distant regions of the universe, or even beyond the universe into the unbounded chaos where nature is supposed to lie in total confusion, nor is anything beyond the power of thought except what implies an absolute contradiction.

But though our thought seems to possess this unbounded liberty, we shall find upon a near examination that it is really confined within very narrow limits, and

that all this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting, diminishing the materials afforded to us by the senses and experience." [3]

If we now backtrack from what we produced- we can only deduce that it is not without prior knowledge. Then it is only logical that in order to have one appreciate one's creations it has to respond to the understanding of only the person concerned-even though it may be in very abstract terms.

OF THE ASSOCIATION OF IDEAS

Of the "Association of Ideas" Hume writes-----

"It is evident that there is a principle of connection between the different thoughts or ideas of the mind, and that, in their appearance to the memory or imagination, they introduce each other with a certain degree of method and regularity. In our more serious thinking or discourse this is so observable that any particular thought which breaks in upon the regular tract or chain of ideas is immediately remarked and rejected. And even in our wildest and most wandering reveries, nay, in our very dreams, we shall find, if we reflect, that the imagination ran not altogether at adventures, but that there was still a connection upheld among the different ideas which succeeded each other. Were the loosest and freest conversation to be transcribed, there would immediately be observed something which connected it in all its transitions." [4]

This extract gives us direction in understanding how important "memory" is in the formulation of "idea". In the premise of architecture this helps us to evaluate background and continuity.

OF THE IDEA OF NECESSARY CONNECTION.

"The great advantage of the mathematical sciences above the moral consists in this, that the idea of the former, being sensible, are always clear and

determinate, the smallest distinction between them is immediately perceptible, and the same terms are still expressive of the same ideas without ambiguity or variation. An oval is never mistaken for a circle, nor a hyperbola for an ellipsis. The isosceles and scalenum are distinguished by boundaries more exact than vice and virtue, right and wrong. If any term be defined in geometry, the mind readily, of itself, substitutes all occasions the definition for the term defined, or, even when no definition is employed, the object itself maybe presented to the senses and by that means be steadily and clearly apprehended. But the finer sentiments of the mind, the operations of the understanding, the various agitation of the passions, though really in themselves distinct, easily escape us when surveyed by reflection, nor is it in our power to recall the original object as often as we have occasion to contemplate it. Ambiguity, by this means, is gradually introduced into our reasonings: similar objects are readily taken to the same, and the conclusion becomes at last very wide of the premises. -----

One may safely, however, affirm that if we consider these sciences in a proper light, their advantages and disadvantages nearly compensate each other and reduce both of them to a state of equality. If the mind with greater facility, retains the ideas of geometry clearly and determinate, it must carry on a much longer and more intricate chain of reasoning and compare ideas much wider of each other in order to reach the abstruse truths of that science. And if moral ideas are apt, without extreme care, to fall into obscurity and confusion, the inferences are always much shorter in these disquisitions, and the intermediate steps which lead to the conclusion much fewer than in the sciences which treat of quantity and number." [5]

In influence, "moral" thus will probably not find a linear connection in most "ideas", but to conclude that "moral" can be totally absent will only contradict man's basic need for "necessary connection".

Whether it is possible to quarantine man from all connection and memory and ask him to have a clinical approach towards a subject that eventually has to be handed back to society is of great concern- as it will ask of society to shed all its memories and even to be free from morality. Context thus finds a strong foothold in the development of an idea in order to find validity in the simplest values of human understanding.

From this inquiry into Hume's work we have been able to not only validate context as an inseparable part of architecture but also to evaluate its role in human understanding. We can thus conclude that Kahn's concern with context will only be more than justified as its is not possible to form an idea without necessary connection and association of other ideas.

And since we have to take into account this communication of thoughts and their continuity in order to make architecture communicable and useful, it justifies Kahn's attempts to inquire into socio-cultural context and the history, memory, desires and aspirations of the people.

This chapter thus works as a validation of Kahn's concern of the projects in this region regarding its part, its historical monuments, its socio-cultural structure; the people and their perception and aspirations.

CHAPTER 2

KANT'S TABLE ON METAPHYSICS, PURE CONCEPT AND UNDERSTANDING.

When we attempt to understand "context" and to develop an idea, which is contextual, we embark on a process of extremely complex understanding.

We will find ourselves quite lost in establishing our understanding of context and even more confused in apprehending others view of it.

However if approached in a higher level of philosophy we will find that it is almost inevitably finite as to what part of our senses shall have what result.

The following tables of Kant can contribute to our development of understanding in this matter and even indicate the shortcomings and pitfall in the process.

Kant terms them as - Prolegomena to any future metaphysics- they narrow down concepts to critical separation in terms of quantity, quality, relation, and modality which allow us to approach a metaphysical concept with clarity and objectivity rather than grasping at abstract references.

PROLEGOMENA TO ANY FUTURE METAPHYSICS:

KANT'S LOGICAL TABLE OF JUDGEMENTS.

1	2
<u>As to quantity.</u>	<u>As to quality.</u>
Universal.	Affirmative.
Particular.	Negative.
Singular.	Infinite

Source: Robert Paul Wolff, "The Ten Great Works of Philosophy", page 335-336

3

As to Relation.

Categorical.

Hypothetical.

Disjunctive.

4

As to Modality

Problematical.

Assertirical.

Apodeictical.

In the case of architectural context the identifiable pitfall thus is

1.

As to quantity.

Singular

3

As to relation.

Hypothetical.

2

As to quality.

Negative.

4

As to modality

Problematical.

Because Architecture cannot be a part of any of the above- and hope to find acceptance and validity, as architecture can neither be hypothetical nor a source of problem. It also establishes beyond confusion that a development in direction in the light of context shall thus embrace the followings logical sequences.

1

As to quantity

Universal

Particular

3

As to relation

Categorical

Disjunctive

2

As to quality

Affirmative.

Infinite.

4

As to modality

Assertirical.

Apodeictical.

KANT'S TRANSCENDENTAL TABLE OF THE PURE CONCEPTS OF THE UNDERSTANDING.

1.	2
<i>As to Quantity.</i>	<i>As to Quality.</i>
Unity (the Measure).	Reality.
Plurality (the Quantity).	Negation.
Totality (the Whole).	Limitation.
3	4
<i>As to Relation.</i>	<i>As to Modality</i>
Substance.	Possibility
Cause.	Existence.
Community.	Necessity.

Pitted against this table "Architectural context" demonstrates the following results.

As to quantity

We must be aware of the " units" of understand in measures-its unmeasurable quantity thus surfaces.

The "plurality" it surfaces and the " totality" it addresses also gives clear direction of the scope of its premise.

As to quality

Negative of non-relevant and the awareness of limitations and reality can lead to the development of the concept of context in a more articulate manner.

As to relation

Relation to substance

Relation to cause

And relation to community

Three elements are almost inseparable in the concept and understanding of context.

As to modality

Here also we see elements that are fundamental to the concept of context.

This table is almost indicative of all the elements that should be considered in the formulation of the concept of context.

It is truly amazing how Kant crystallizes all the thoughts and theories of pure concept and understanding into such a simple table. It thus becomes almost child's play to assess concept and test its purity and validity.

The whole purpose of bringing these tables about is to demonstrate later how Kahn's understanding of context is almost without plan and adheres to all requirement of "pure concept" as per Kant's table.

It was necessary to bring forward this part of the study for us to understand that logic and judgement cannot be dictated by whim and profound opinion.

We can compare these observations with Kahn's thought towards architecture and find that his thoughts satisfy the — acceptable perimeters of logic and judgement — and leaves out the obvious pitfalls.

This makes Kahn's thoughts regarding architecture and context more valid as they transcend the boundary of personal view and hypothesis and touch upon basicness and truth.

CHAPTER 3

"PLACE"

This chapter investigates into Christian Norberg Schulz 'Genus Loci' and provides extracts on "Place". The direct physical premise of context is "Place" thus it is important to have some understanding of "Place" as according to theorist in architecture.

The following extracts shall establish that "Place" is not separable from all the 'connections' it has to it, 'physical' and 'metaphysical'.

Thus this chapter emphasises that "Place" cannot be isolated in its physical entity only. This in turn indicates that the context of a place cannot be limited to in physical dimension only. "Architectural context" shall thus have to be far reaching and expand beyond its physical boundaries.

This guides us to conclude that Architecture void of all connections is a fallacy-as it being in a "Place" and with out connection is as foreign to the place as irrelevant the place becomes to architecture.

Later on we shall see in Kahn's work how "Place" and all its connections are comprehended and established effortlessly.

THE PHENOMENON OF PLACE

"Our everyday life-world consists of people, of animals, of flowers, trees and forests, of stone, earth, wood and water, of towns, streets and houses, doors, windows and furniture. And it consists of sun moon and stars, of drifting clouds, of

night and day and changing seasons. But it also comprises more intangible phenomena such as feelings. This is what is "given", this is the "content" of our existence. Thus Rilke asks: "Are we perhaps here to say: house, bridge, fountain, gate, jug, fruit tree, window, - at best: column, tower..." Everything else, such as atoms and molecules, numbers and all kinds of "data", are abstractions or tools which are constructed to serve other purposes than those of everyday life. Today it is common to give more importance to the tools than our life world.

The concrete things, which constitute our given world, are interrelated in complex and perhaps contradictory ways. Some of the phenomena may for instance comprise others. The forest consists of trees, and the town is made up of houses. "Landscape" is such a comprehensive phenomenon. In general we may say that some phenomena form an "environment" to others.

A concrete term for environment is place. It is common usage to say that acts and occurrences take place. In fact it is meaningless to imagine any happening without reference to a locality. Place is evidently an integral part of existence.

What, then, do we mean with the word "place". Obviously we mean something more than abstract location. We mean a totality made up of concrete things having material substance, shape, texture and colour. Together these things determine an "environmental character", which is the essence of place. In general a place is given as such a character or "atmosphere". A place is therefore a qualitative, "total" phenomenon, which we cannot reduce to any of its properties, such as spatial relationships, without losing its concrete nature out of sight." [7]

We are told here that a place does not exist only as its physical dimension. The references to a "place" are as diversified as numerous. It also suggests that no two places are totally identical in all counts. And also that neither does a place without reference exist. In terms of architectural context this explains how important context

is and since place without reference is incomprehensible, architecture without context of any sort is an act of forced negation.

THE SPIRIT OF PLACE

The "spirit of a place" which lies beyond its physical dimension is elaborated in the followings.

"Genus loci is a Roman concept. According to ancient Roman belief every "independent" being has its genius, its guardian spirit. This spirit gives life to people and places, accompanies them from birth to death, and determines their character or essence. Even the gods had their genius, a fact which illustrates the fundamental nature of the concept. The genius thus denotes what a thing is, or what it "wants to be", to use a word of Louis Khan. It is not necessary in our context to go into the history of the concept of genius and its relationship to the domain of the Greek. It suffices to point out that ancient man experienced his environment as consisting of definite characters. In particular he recognised that it is of great existential importance to come to terms with the genius of the locality where his life takes place. In the past dependant on a "good" relationship to the place in a physical as well as psychic sense. In ancient Egypt, for instance, the country was not only cultivated in accordance with the Nile floods, but the very structure of the landscape served as a model for the lay-out of the "public" buildings which should give man a sense of security by symbolising the eternal environmental order." [8]---

"Modern tourism proves that the experience of different places is a major human interest, although also this value tends to get lost. In fact modern man for a long time believed that science technology has freed him from direct dependence on places. This belief has proved an illusion; pollution and environmental chaos have

suddenly appeared as a frightening nemesis, and as a result the problem of place has regained its true importance.

We have used the word "dwelling" to indicate the man- place relationship. To understand more fully what this word implies, it is useful to return to the distinction between "space" and "character". When man dwells, he is simultaneously located in space and exposed to a certain environmental character. The two psychological function involved, may be called "orientation" and "identification". To gain an existential foothold man has to be able to orient himself; he has to know where he is. But he also has to identify himself with the environment; that is, he has to know how he is a certain place." [9]

As we can see beyond the physical orientation of place, its metaphysical orientation becomes important for one to also identify the place. Context of place thus concerns elements that are vital to provide orientation and identity of the place-----
----- without which no architecture shall be able to capture the true spirits of "Place".

Kahn in his work has always concerned himself with the physical and the metaphysical elements of place. This in turn has made his architecture contextual without having to resolve to "elemental" implants.

This inquiry into place and its spirit —gives us theoretical reference against which we can conclude that Kahn's sensitiveness of place and in non-physical aspects was much needed in the projects he developed in this region. Kahn was always concerned with the metaphysical aspects of place when he was working in his region. This gave a tremendous sense of contextuality to his projects of the region. His concern with history, socio-cultural beliefs, nature of the people — all these can be experienced in his projects have. As we can see from the writings of Christian Norberg Shultz Kahn was right in doing so.

CHAPTER 4

THE PHILOSOPHY OF KHAN'S ARCHITECTURE

"One learns constantly from the surrounding world, but the basis of one's inspiration comes from within.

The mental processes that characterized an individual, whether formed by heredity or environment or both, are evident from earliest childhood. In Louis Kahn, an introverted, philosophical nature, combined with deep convictions and an unusual degree of artistic talent, developed into a singularity of purpose. Through his architecture, he strove for the ideals he expressed in words." [10]

This chapter deals with Kahn's architectural philosophy- specifically his thought that helps us to understand his perception of architectural context. Since the understanding of architectural context- has the scope to vary in concept- it is vital to understand Kahn's thought process in order to attempt to analyze his work in the light of context.

Kahn, like his thought are extremely profound, thus it is extremely difficult to establish only linear connection to the "direct" interpretation of things, as we would want it. But even this we will see as there are clean indication of his perception of context in the following

We will start of with understanding Kahn's philosophy of architecture and move on to more direct concepts on context. This chapter is vital in providing background to the following chapters where Kahn's perception of context is discussed in greater details.

"Context" in architecture in Kahn's mind reigns in a realm of great values. The infinite and the particular, man and nature, realization and creation, all exist in transcended form that cannot be satisfied by elements and cliché.

The very making of Architecture to Kahn is almost a spiritual

Realization uncompromised by the mere physical making of it. In this chapter we will be introduced to Kahn's greater premise of architectural thought, which will provide direction to decipher his vision and concepts.

"Both of Kahn's parents had an indefinable aura of specialness about them that caused friends and neighbors to gravitate toward them. Kahn inherited his grandmother's instinctual sense of justice and his mother's compassionate intuitive perception of human nature. From his father, Kahn receives a stubborn pride and a loyalty to his belief systems. Kahn's beliefs were based on feeling. He accepted others' differences and yet remained true to his own ideals. He commended respect because, not only did he developed consistent principles, he also tried constantly to live and work by them.

Louis Kahn's philosophy of architecture was a direct outgrowth of his philosophy of life. His descriptions of the psyche, of wonder, silence and light, when taken out of the context of architecture become descriptions of his own existence. "Life to me is existence with a psyche; and death is existence without psyche," Kahn said, and because the psyche to him was a prevalent soul that transcended the individuality of each human being, he was justified in searching within himself for principles common to all people, principles that could be expressed through architecture. By following the train of thought that eventually laid him to the concept of silence and light, Kahn attempted to describe the origins of his own creativity. What he saw as the meeting point of the desire and the means to

express represents his subjective understanding of inspiration, but it also applies to human creativity in general." [11]

To be clinically unconscious of metaphysical aspects and to approach architecture with "form making" attitude was not Kahn's way of thinking and working. It was in his nature to assent unto himself the exercise to understand the finer and deeper values that can only be expressed in the metaphysical level.

The profound approach towards things went on to be an integral part of his thought process and eventually his work.

At the core of Kahn's philosophy are his statement of "order" and his expression of realization. It is from both these concepts that one finds out how Kahn perceives context and how his expression of context is at a much higher level-comprising of values and aspiration rather than "regionalism" and elemental expression. The conceptual realization and order as understood by Kahn is brought to light in the following extracts from the writings of Alexandra Tyng.

"Kahn first began to reflect on his own creative process in the late 1940s and early 1950s. His reaction against the International Style's dry, analytical approach to architecture prompted him to say that feeling was a more important process than thinking in the design of buildings. In making this statement, Kahn brought into the open his natural preference for feeling, which he had suppressed in his career up to that point. He ceased to follow the contemporary dictum and began forging a new way of approaching design, changing the direction of architecture in the process.

By 1959 Kahn envisioned thinking and feeling as functions that run parallel to each other in the mind of the architect. Gone was his earlier insistence that thinking was subordinate to feeling. Once he made the initial break from International Style ideology, he gradually returned to a more moderate standpoint in which thinking and feeling were given equal importance.

Although Kahn felt that a fluid exploration of possibilities was the most joyous form of expression, he was surprisingly as agile in the realm of logic and reason as he was disciplined about testing the validity of his ideas. Therefore, he put aside his preference for the feeling mode of functioning when described the creative process in general. Both thought and feeling, said Kahn, have their moments of greatness; thought is capable of transcending into religion. Kahn chose the words philosophy and religion to express systems of thought and feeling that strike a common chord in all people.

When an idea reaches beyond one's personal experience, it becomes a collective experience understood by all human beings, regardless of cultural and environmental differences. The idea is then no longer one's own; it belongs to everyone. When both thought and feeling reach their universal forms, then they are able to join together. At their point of fusion, a flash of insight occurs. This dramatic moment is often symbolized in cartoons by the light bulb going on in one's head: "I've got it!" Kahn called this moment "realization." "[12]

On Kahn's development of the concept of order Tyng writes...

"Over the next few years, Kahn's idea of order shifted as it matured. In 1955 he could say with confidence that order is, implying that order was the given, on which all possibilities of design might be based. When Kahn first wrote, "Order is," he had been trying for some time to define order, making a long list of all the

things order was. The effort left him so mentally exhausted that he finally threw out the definitions and kept the beginning of the sentence: "Order is." Amazingly, those simple words described order better than all the definitions put together."

[13]

This would remain a turning point in Kahn's architectural philosophy as his changed perception of order remained an underlying force of his perception. As Tyng writes-----

"Suddenly he saw order in a new light. It was almost as if the word had begun to take on a life of its own. The image of order gained fullness and reality in Kahn's mind." [14]

Kahn believed that the order of nature was intrinsic, and not merely a product of the subjective human perspective. As he said,

"Seen through the mind's eye, nature's inherent organization became the standard by which to judge one's own creations."

In his writing on order Kahn defines "order" and its premise and draws the intrinsic relationship between order, form and beauty.

Kahn also explains the manifestation of order in architecture and clears the confusion that arises from no connection. In the end he underlines how under being intangible can still support integration since its powerful underlying force develop beauty unhindered by deliberateness .

"Order is

Design is form making in order

Form emerges out of a system of construction

Growth is a construction

In order is creative force

In design is the means—where with what on when with how much

The nature of space reflects what it wants to be

Is the auditorium a Stradivarius

or is it an era

Is the auditorium a creative instrument

keyed to Bach or Bartok

played by the conductor

or is it a convention hall

In the nature of space is the spirit and the will to exit a certain way

Design must closely follow that will

Therefore a stripe painted horse is not a zebra.

Before a railroad station is a building

it wants to be a street

it grows out of the needs of street

out of the order of movement

A meeting of contours englazed.

Thru the nature—why

Thru the order—what

Thru design—how

A Form emerges from the structural elements inherent in the form.

A dome is not conceived when questions arise how to
build it.

Nervi grows an arch

Fuller grows a dome

Mozart's compositions are designs

They are exercises of order—intuitive

Design encourages more designs

Designs derive their imagery from order

Imagery is the memory—the Form

Style is an adopted order

The same order created the elephant and created man

They are different designs

Begun from different circumstances

Shaped from different circumstances

Order does not imply Beauty

The same order created the dwarf and Adonis

Design is not making Beauty

Beauty emerges from selection

affinities

integration

love

Art is a form making life in order—psychic

Order is intangible

It is a level of creative consciousness

forever becoming higher in level

The higher the order the more diversity in design

Order supports integration

... From what the space wants to be the unfamiliar many be revealed to the architect.

From order he will derive creative force and power of self-criticism to give form to this unfamiliar.

Beauty will evolve" [15]

In Kahn's statement of order, which often serves as the underlying principle to his concepts, we see no weakness towards subjective individuality, isolated deliberation, and stylistic expression. Which all indicate a perception of context above the superficial level.

The following section takes up Giorgola's writings [16] on Kahn's architecture from which we still see that, stylistic approach; cliché, superficial regionalism, unsympathetic attitude etc were never a part of his doctrine.

Rather his sensitiveness, his profound understanding of context, his unmatched ability to incorporate natural element, right material, particular situations and transform them into an "architectural" entity, will be highlighted in the following...

"There are five constants which are repeated all through Kahn's work: 1) The composition and the integrity of the building. 2) Respect for the materials. 3) The spatial module as basic element, the repetition of which determines the plan. 4) Light as an element of the construction. 5) The relationships between the different architectural elements.

1. Composition and integrity:

For Kahn, the integrity of a building supposes a wealth of philosophical reflection. He composed his concept of beauty and composition to that of Thomas Aquinas,

for whom there were four criteria for determining the beauty of an object: its integrity (integritas), its perfection (perfectio), its symmetry and proportions (porportio) and its clarity (claritas). "

It should be noted here that his understanding of integrity reaches beyond physical element well into the realm of human activity, history, aspirations and the building's will.

2. Respect for the materials:

"The manner in which Kahn makes use of his materials is one of the characteristics of his architecture. The care with which he uses them is an expression of his desire to establish a new and better relationship between human beings and nature."

Kahn' sensitiveness towards place - nature and material is a conclusive example of his great ability to be extremely contextual. This sensitiveness has been extended to all the work he has done in the region and thus establishes beyond doubt his ability to understand and reconstruct the architectural context of the region.

3. Space:

"Kahn considered the plan to be the composition of a number of elements. Each of the various spatial modules is a self-contained unit, which is independent of the overall form of the plan . Human activity occurs in space, and Kahn felt that a place for the meeting of two people was completely different from a space intended for the assembly of a large number of people. "The difference is that which exists between facts (event) and their realization (performance)".

For Kahn the space of a plan was not a generative of a form but of a purpose. We will see this displayed strongly in his work in the region in the following chapters.

4. Light as an element in construction:

"Natural light determines the nature of a space. The plan indicates where there is light and where there is not."

Since in his architecture light becomes the form maker and structure the giver of light, his attention to place, environment climate and purpose of the building unite into a profound entity oscillating between the particular and the infinite. This remained to be one of Kahn architecture's greatest characteristics.

5. The relationships between the different architectural elements:

"In order to compose a space it is necessary to analyze the relationships between the constituent elements. The form of this relationship, whether it be concrete or symbolic, has been of constant concern to architects in every period of history. His work is "atemporal" rather than "historical", in the sense that it does not consist in the linear development of the basic postures of modern architecture, nor is it a simple, rational fusion of the postulates of the past."

It is in these words that we are taken back to Kahn's profoundness of understanding the past and we are reassured that his sensitiveness to the part is beyond "elemental manifestations."

Another very important aspect of Kahn's work is what he calls the building "will"- here he seeks a much profound expression for architecture- well beyond program and form.

"As a thinker and a builder, Kahn was indisputably *sui generis*. His life's work is the manifestation of a fully deliberated and finely honed philosophy which, when put into words by the master himself, can be maddeningly circumlocutory and enigmatic. In brief, Kahn maintained that the form of a building, contrary to customary definition, has nothing to do with its shape or dimension but rather emanates from an amorphous yet distinct determination of the building's "will." "

[17]

Another vital element of Kahn's work was the understanding of "two realities"

"There are two realities, one the reality of belief and the other the reality of means.

Most of the realities of the means are employed and the reality of belief is absent. Many buildings are built without belief. They are built merely for profit. They are built to make things more convenient, more modern. But they don't have the belief in the back of them, which has to do with the establishment of a new institution. The same kind of belief that made the first monastery, that made the first schools that made the first bureau of health. That's the kind of belief which, when established, becomes an inseparable part of the way of life.

Every building that an architect builds is answerable to an institution." [18]

Here he rejects the concept of having architecture without the element of belief and it being answerable to an institution of man.

This is exemplified beautifully in his work in the region, as we will see in the later chapters.

This understanding of the reality of belief contributes greatly to the contextuality of his work as it incorporates the very fabric of culture and aspiration into the development of architecture.

Kahn also held architecture well above personal egocentric statement - and he judges its validity in a greater level of profoundness, timelessness, and -and truth.

"There's something that pulls on you as though you were reaching out to something primordial, something that existed much before yourself. You realize when you are in the realm of architecture that you are touching the basic feelings of man and that architecture would never have been part of humanity if it weren't the truth to begin with.

Man will reject that which is not the truth. Many attempts that have been made in earlier times to make things exist and perpetuate themselves have failed because they weren't the truth.

Architecture is the reaching out for the truth." [19]

Stylization and the war of "ism" had no place in Kahn's work- timeless inspirational value stood out to be the only true value of architecture.

"I did say that architecture itself has no rules, no regulation, no style no method. It simply waits for something that is made which it receives without judgement..

It receives what it true to itself.

It doesn't go through a jury. It simply establishes itself in the minds of all as being something which inspires you." [20]

Kahn related his architectural thoughts back to his understanding of order. This gave very simple exercises like space and openings much greater profoundness. All his design thoughts related back to his concept of order, which truly became one of his strongest ideologies.

"There must be an order of movement, an order of winds, an order of light."- [21]

"When you see a moving stream you feel as though you have caught sight of what life really is, because you, yourself, have a record of this in you in some way- and your response to it is something which is very much part of life and you want to make it part of your living.

And there you can make a distinction between living and life if you wish. Life is something that is. It's the nature; really, of our existence-where living is just the exercise of it. And life is the part I'm talking about. Living- like design- concerns me very little. What does concern me is that which makes design an understandable thing. And if you don't understand the sense of life it is very hard to sense whether you are satisfying this life through living. It is the same if you stand in a square and see a number of windows. These give you the first trace of light. You're not so much conscious of light until you see windows. You know that these windows light the interior of things." [22]

In his philosophical ethos Kahn remains a true puritarian untainted by 'isms' and 'styles'. His sense of righteousness is a strong driving force, which makes his thoughts extremely sensitive. Linear interpretation seems to have no place in his ideas, -which are all developed around profound concepts. Timeless, primordial, institutions of Man, Human agreement, aspirations and desires.....hold the beacon to his architecture. And in this context finds a new meaning, well beyond climate, culture, time, building material, etc. These are effortlessly woven into his work with great sensitivity and vision..... but do not become the goal. Theirnatural integration is transformed into greater values.... taken them beyond culture and geographical boundaries....into the realm of Man and timeless values.

CHAPTER 5

CROSS-REFERENCE OF KAHN'S PHILOSOPHY AGAINST DAVID HUME'S, IMMANUEL KANT'S, AND CHRISTIAN NORBERG-SCHULZ'S IDEAS

In this chapter the following tables show how one may superimpose Kahn's thoughts on the philosophical reference of Hume, Kant and Christian Norberg Schulz in order to understand their implication and their validity.

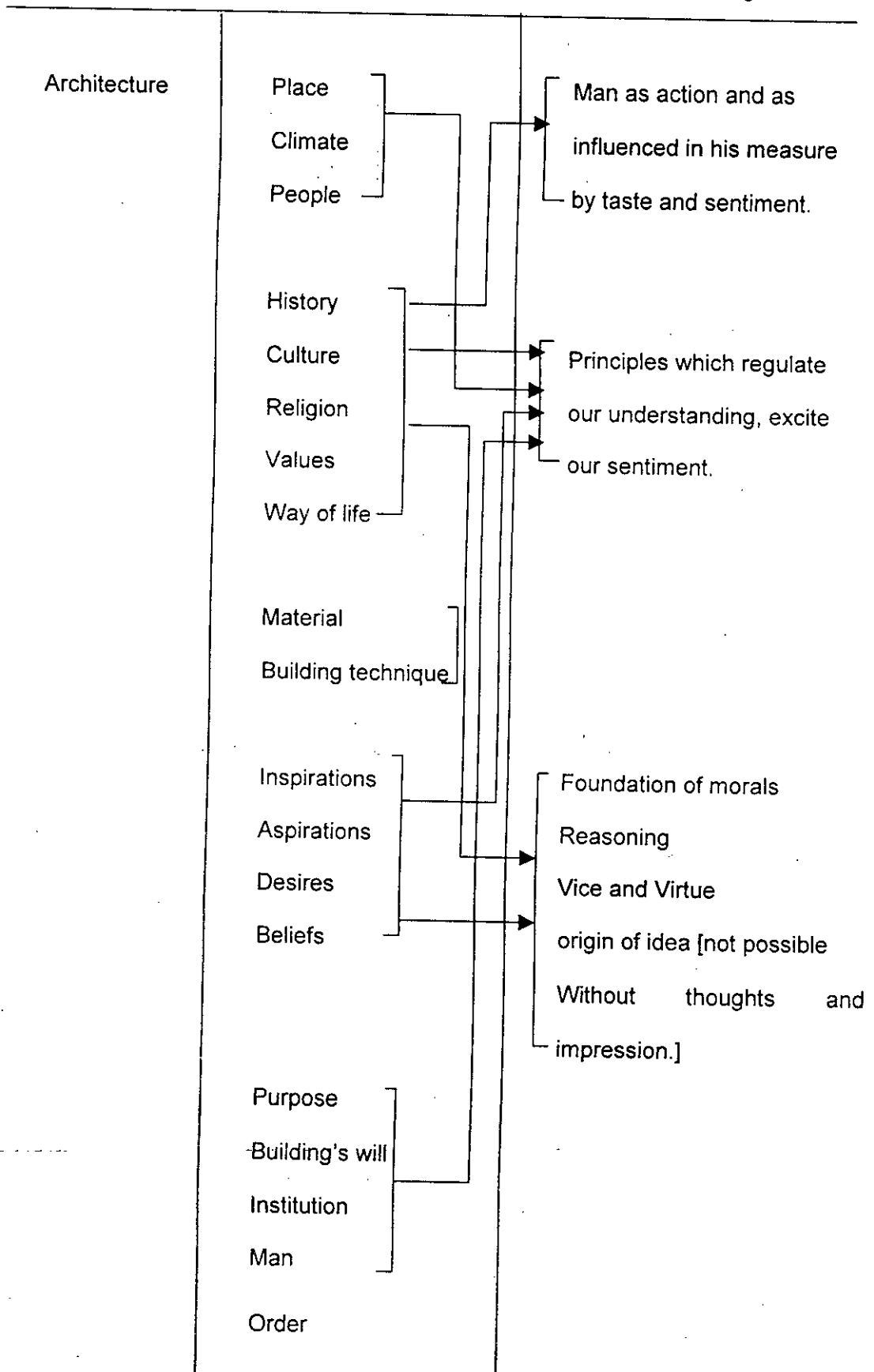
The first table will show the basic elements of Kahn's approach to context.

The following tables will show cross-reference of the first table against the thoughts of Hume, Kant and Christian Norberg Schultz.

These cross-references will thus prove the validity of Kahn's thoughts—as if his basic philosophy as complementary to basic principles established in modern philosophy then their outcome will also support that "basicness" of human understanding.

The architecture of Louis I Kahn	Context
Architecture	<div> Place Climate People </div>
	<div> History Culture Religion Values Way of life </div>
	<div> Material Building technique Inspirations Aspirations Desires Beliefs </div>
	<div> Purpose Building' will Institution Man </div>
	Order

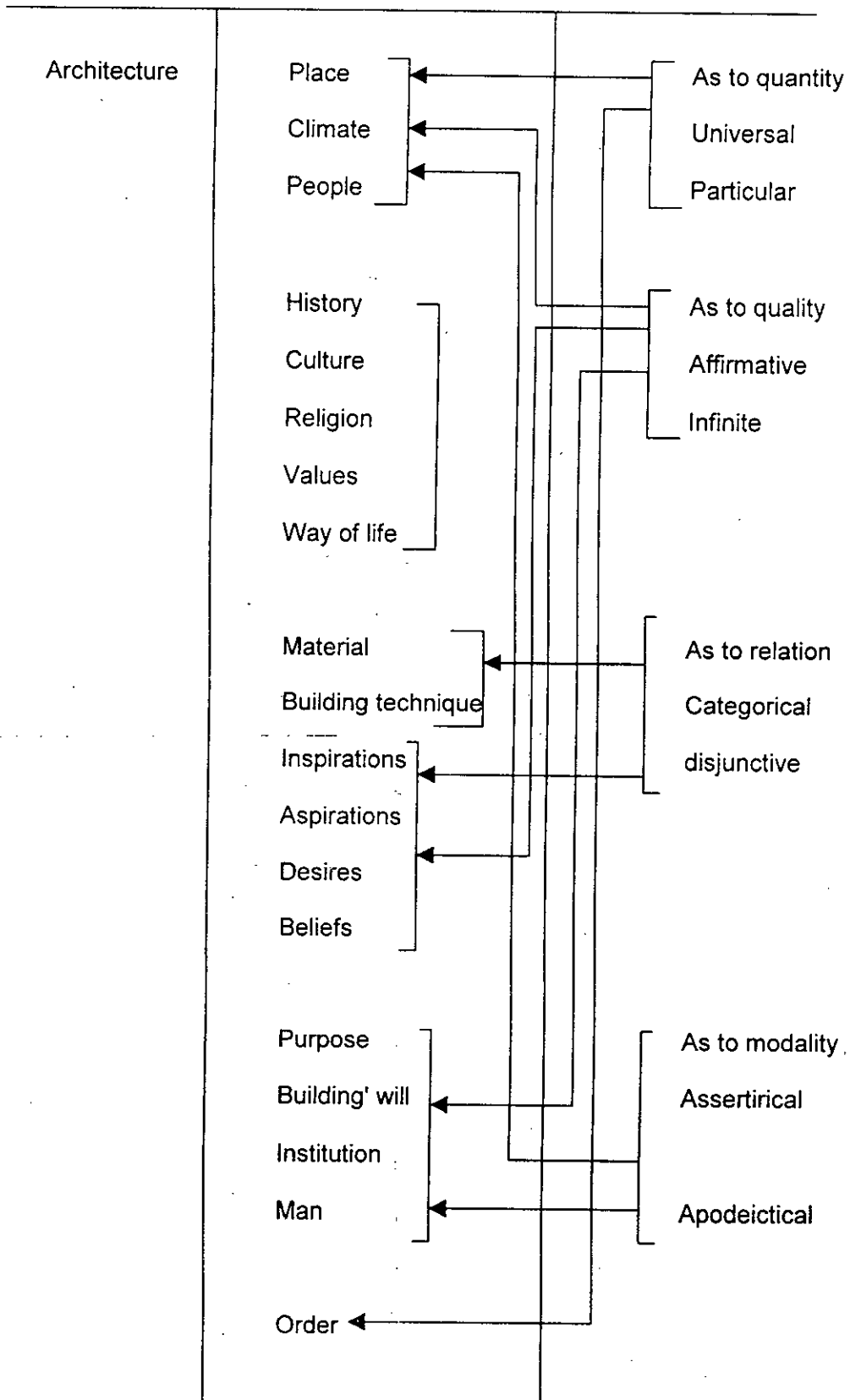
Against David Hume's philosophical outlines of human understanding



If we take some key words from Kahn's philosophy and doctrine such as Place, Climate, People, History, Culture, Religion, Values, Way of life, Material, Building techniques, Inspirations, Aspirations, Desires, Beliefs, Purposes, Building's will, Institution, Man, and Order and put them against Hume's philosophical work of human understanding we will see that "Man as active as influenced in his measure by taste and sentiment" — correlate to History, Culture, Religion, Values, Way of life.

"Principles which regulate our understanding, excite our sentiment" — correlates to Place, Climate, People, History, Culture, Religion, Values, Way of life, Inspirations, Aspirations, Desires, Beliefs, Purposes, Building's will, Institution, Man. "Foundation of morals, Reasoning, Vice and Virtue, Origin of idea" — correlate to Material, Building technique, Inspirations, Aspirations, Desires, Beliefs. As we can see at the metaphysical level Kahn and Hume have very little contradiction rather the cross-reference validates Kahn's philosophy.

Against Kant's logical table of judgement



As we can see when referred against Kant's logical table of judgement we see the following results —

As to quantity, a) Universal b) Particular. Place, Climate, People and Order can be correlated.

As to quality, a) Affirmative b) Infinite. Place, Climate, People, Inspirations, Aspirations, Desires, Beliefs, Purpose, Building' will, Institution, and Man can be correlated.

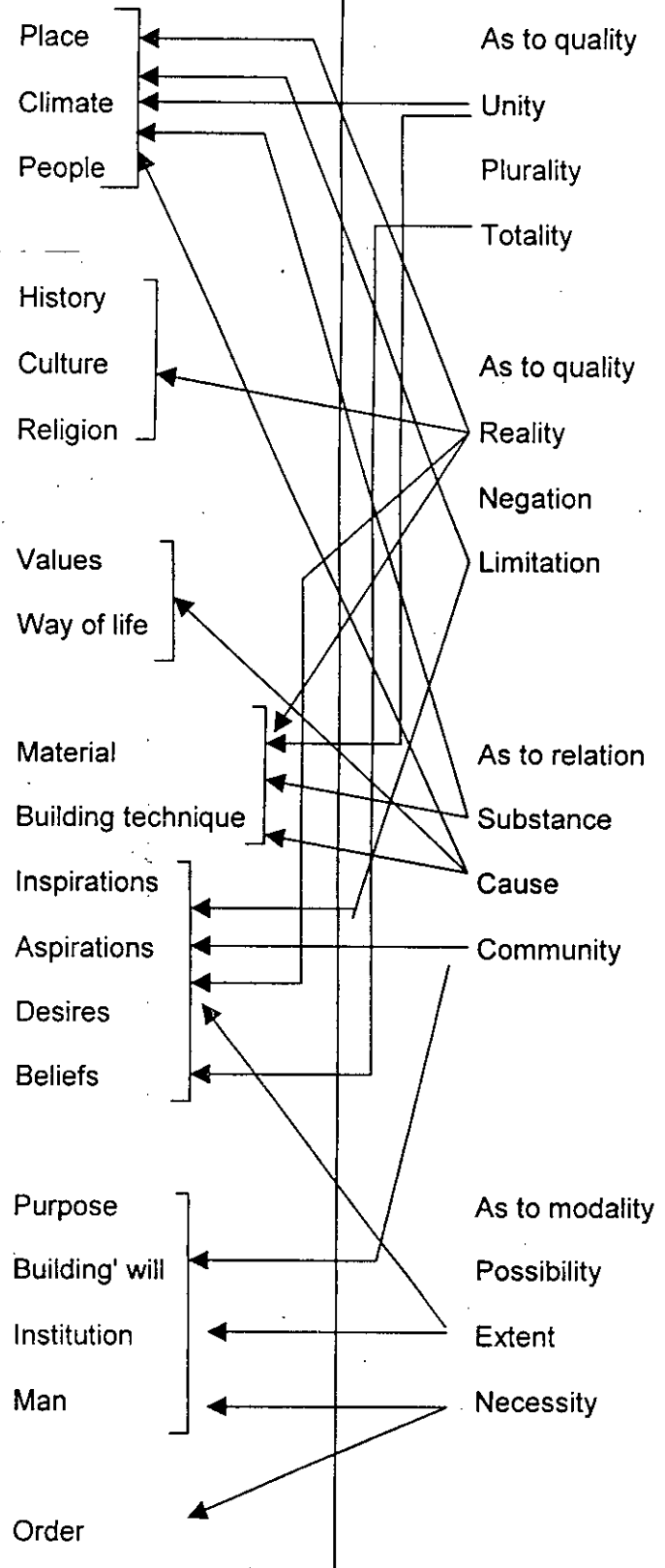
As to relation, a) Categorical b) Disjunctive. Material, Building technique, Inspirations, Aspirations, Desires, and Beliefs can be correlated.

As to modality, a) Assertirical b) Apodeictical. Place, Climate, People, Purpose, Building' will, Institution, and Man can be correlated.

As we can see Kahn's philosophy can be validated against Kant's table of logical judgement, thus lifting his ideas beyond mere hypothesis or whim.

Against Kant's table of the pure concepts of understanding.

Architecture



If we evaluate Kahn's ideas to pure concepts of understanding we will see that—

As to quality a) Unity b) Plurality c) Totality. Place, Climate, People, Material, Building techniques, Inspirations, Aspirations, Desires, and Beliefs can be correlated.

As to quality a) Reality b) Negation. Place, Climate, People, History, Culture, Religion, Material, Building technique, Inspirations, Aspirations, Desires, and Beliefs can be correlated.

As to quality c) Limitation. Place, Climate, People, Inspirations, Aspirations, Desires, and Beliefs can be correlated.

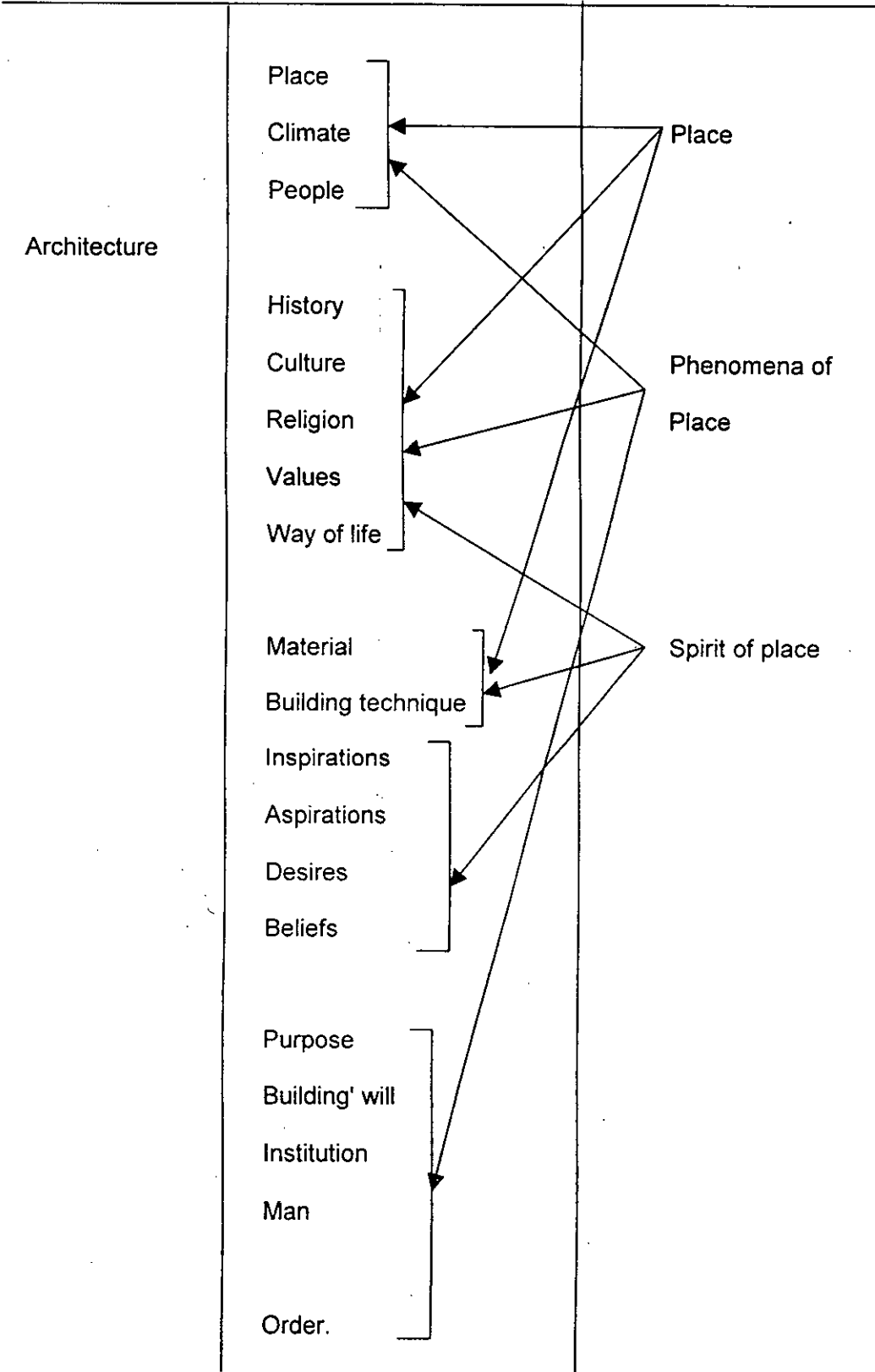
As to relation a) Substance b) Cause. Place, Climate, People, Material, Building techniques can be correlated.

As to relation c) Community. Inspirations, Aspirations, Desires, Beliefs, Purpose, Building' will, Institution, and Man can be correlated.

As to modality a) Possibility b) Extent. Inspirations, Aspirations, Desires, Beliefs, Purpose, Building' will, Institution, and Man can be correlated.

As to modality c) Necessity. Purpose, Building' will, Institution, Man, and Order can be correlated.

Against Christian Norberg Schulz theory of "space"



In order to evaluate whether Kahn's philosophy pertain to the "context" of a place and at the see time whether this connection is imposed or evident a cross-reference with Schulz theory of "space" has been made.

Here we see the concept of "Place" relates to Place, Climate, People, History, Culture, Religion, Values, Way of life, Material, and Building technique.

Here we see the concept of "Phenomena of Place" relates to Place, Climate, People, History, Culture, Religion, Values, Way of life, Purpose, Building' will, Institution, Man, and Order.

Here we see the concept of "Spirit of Place" relates to History, Culture, Religion, Values, Way of life, Material, Building technique, Inspiration, Aspirations, Desires, and Beliefs.

CHAPTER 6

CONTEXT:

PLACE, TIME, TRADITION.

"You must confine yourself to saying olds things — and all the same it must be something new." [23]

This chapter demonstrates Kahn's flawless understanding of time place and tradition. His ability to address time in the particular and infinite, becomes the basis of his architectural thoughts.

His consciousness of place beyond its physical dimension, gives his architecture unparalleled sensitivity. And his understanding of tradition in a profound way touches the aspirations of man beyond time and place. Kahn hardly ever gives a complete narration of his works in a linear way. One has to read between the lines of his profound philosophy for traces of evidence of his thought, understanding- and their transformation into architecture.

For Kahn timelessness was not an option but the inevitable value architecture is to have. This determination comes from his understanding of the relationship of human civilization with time. In his words.

"Man will not accept that which is not part of eternity." [24]

He refuses to see human events as isolated phenomena.

Vice versa he does not accept events contributing to the continuity of human civilization.

He indicates an understanding of context in the complex premise of time.

It also indicates a demand to interpret time in higher order of philosophy. It is different from our finite understanding of "contemporary" and "traditional"

What is being put into question here is "contemporary" cannot be the finite end if it fails to hold its value in the future. Also "contemporary" without continuity will not exercise any value to the time concerned, as its isolation inherently will lead to its alienation.

"the sense of truth" will supercede the individualistic approach and its validity in time. Beyond this if we are to develop a work that is to inspire the next era- it will only hold value if it continues a "value" that is basic, non subjective and at the same time particular and infinite in Kahn's words.

*"The time of a work holds its own validity
from which the sense of truth can be drawn
to inspire the work of another time." [25]*

Often we make the mistake of looking at the old buildings hoping to adopt or transform elements. This when done literally develops into cliché. We fail to see what actually inspires us and tend to read of the surface. The great "original beginning" of the old buildings and their lack of inhabitation is what has made them great.

In Kahn's words..

"The old building which started without any courses in architecture was far greater than our philosophizing about it. Because you can't begin to teach the practical application of the original beginnings." [26]

It is in that "original beginning" time and place, history and aspiration all have been addressed without succumbing to the pressure of "elements" and "style". Its clarity addressed truth in its time and upholds timeless value to us in our time. It is this greater context that Kahn seeks in architecture.

"Timelessness"- or "transcendal" both are quantities that are very hard to pre-determine, but it is possible to attempt to appreciate the qualities that bring about them. In Kahn's words-----

----- "It's impossible to anticipate the future, but it is possible to anticipate the lasting quality in what you do today!" [27]

These Simple words provide clean direction as to how one can attempt to evaluate one's thought. It also emphasizes on the "lasting quality" of things, which indicates a non-subjective and a contextual approach.

The following extract will show Kahn's refusal to accept the perception of future development in an apparent level. It also tells us his conviction at the profoundness of development as a natural process rather than one of assertion.

"One person put an illustration on the table, and said,

'Mr. Kahn, we want to show you what a spacecraft will look like

fifty years from now.' It was an excellent drawing,

a beautiful drawing, of people floating in space,

and of a very handsome, complicated-looking instrument

floating in space. You feel the humiliation of this.

You feel the other guy knows something

of which you know nothing, with this bright guy showing

and saying.

'This is what a spacecraft will look like fifty years from now.'

I said immediately, 'It will not look like that.'

And they moved their chairs closer to the table

and they said, 'How do you know?'

I said it was simple.....

If you know what a thing will look like fifty years from now,
you can do it now.

but you don't know, because the way that a thing will be
fifty years from now is what it will be.

There are certain natures, which will always be true.

What a thing will look like will not be the same,

but that which it is answering will be the same.

it is a world within a world;

that is what it will always be.

When you have an enclosure, it will be different

from what it is outside.

And it will be so because its nature is such." [28]

We now move onto look into Kahn's understanding of places and its human interaction from the writings of Giurgola the following extracts were taken to help us form an idea of his understanding.

"Kahn's understanding of human nature is a closely related to his idea of "place", a concept with very special significance for him. In its everyday sense the word means presence, but when it refers to human beings it implies the desire to be, to possess, even to conquer. Ideas of separation and meeting are simultaneously present in this concept, always linked with nature or the immediate environment.

For Kahn the idea of "place" is not a physical fact, which could be represented by an image, but the consequence of a program, which satisfies the human needs and demands with regard to a particular place. This concept implies an ideology, given its adaptation to human requirements. Kahn's concern is with the creation of spaces, not in terms of the formation of a complex by the combination of simple parts, but by means of a much more elaborate process." [29]

Kahn takes place well beyond its physical boundaries. He connects it not only to its natural environment, climate, and surroundings but also with reference to human interaction and perception. "Place also presents itself to him with all its layers of history, culture, human aspirations and desires and there outcome.

He thus finds it unexceptable to treat place as a weak platform for a physical development. Its heritage -continuity and fulfillment turn out to be of greater concern.

This abstraction of thought with relation to context is highlighted in his own words.

"An architectural space must reveal the evidence of its making by the space itself."-
[30]

This takes architectural space well beyond the boundaries of programs and also beyond the narrowness of style.

The following words of Kahn are a beautiful bridge between primordial feelings, greater ethos and the physical site.

" The builder seeking a beginning
is primed by the feeling of commonness
and the inspirations of nature

just a fragment of knowing steers wonder to intuition
and to the acts of expression.

In the presence of the mountain, the water, and the wind

The desire to express feels the possible

The site confirms the possible.

When you come to a site, you know it's possible, because the site already tells you
it's possible.

The site confirms the possible...

And encourages agreement on the beginning in the making of man's place.

A mere foothold is confident of the settlement.

The first institution of man." [31]

In the analysis of context this establish beyond doubt, Kahn's profound understanding of "place" it also concludes his two fold understanding of the physical and metaphysical entities, and upholds its demand for a greater architectural ethos.

In the light of architecture the following extracts will first show Kahn's dedication to nature as being the point of reference. And the second, his ability to assimilate all natural elements and rearrange them in a way where he almost controls all its faculties to complement his creation.

The finest extract being ...

"It must be considered nothing short of a human miracle to have thought of a building which doesn't in any way resemble what is in nature and which could not have been done if nature hadn't approved its making." [32]

"Nature is the maker. It is the giver of présence.

You can have a thought, but a thought has no presence until you call on nature to exercise its powers of order, to make it manifest." [33]

And the second...

"I am designing an art museum in Texas. Here I felt that the light in the rooms structured in concrete will have the luminosity of silver. I know that rooms for the paintings and objects that fade should only most modestly be given natural light. The scheme of enclosure of the museum is a succession of cycloid vaults each of a single span 150 feet long and 20 feet wide, each forming the rooms with the narrow slit to the sky, with a mirrored glass shaped to spread natural light on the side of vault. This light will give a glow of silver to the room without touching the objects directly, yet give the comforting feeling of knowing the time of day. Added to the sky light from the slit over the exhibit rooms, I cut across the vaults, at right angle, a counterpoint of courts, open to sky, of calculated dimensions and character, marking them Green Court, Yellow Court, Blue Court, named for the kind of light that I

anticipated their proportions, their foliation, or their sky reflections on surfaces, or on water will give." [34]

In this part of the chapter we will look into thoughts on "tradition".

On "traditional"...

Kahn does not see tradition in the light of a spectacle of the past- but a source of inspirational value. The concept of "old" and "new" is outgrown in Kahn's mind and the concept of timelessness evolves. Timelessness of all that is old and all that is new - beyond the very concept of now and then.

As Kahn says...

"Can you say that Mozart's works are traditional? They are wonders of the human mind, of its sense of eternity; did he retrieve them from eternity? Where were they before? Where can you buy them? You can't buy them! These are the qualities that the great musicians bestowed on music and the great architects bestowed on architecture." [35]

In different writings Kahn says...

"Tradition and traditional, I think, is a very good distinction to make. One has to do with the way of life and the other has to do with the way of living. Tradition really touches on the way of life and it takes in and encompasses the various individual tendencies each person has. Traditional, though it is a fine distinction can mean that it is a line of tradition only expressed in a certain way which in one period can be expressed differently because of the circumstances involved. I would say traditional is circumstantial and tradition is probably not circumstantial. The value of tradition is that it gives you powers of anticipation, that you are able, with tradition, to find the

courage to express that which lasts for a longer period of time than what circumstantially you can judge. It is beyond the circumstances that you express it in, so the golden dust is only an expression of nature-man which distills out of all of this, from which you get the very essence of the meaning of tradition and traditional, and everything that makes that distinguish itself from what nature makes without man."

[36]

These extract talks of a search for "essence" and "meaning" and distillation to go on to learn from tradition and to make something that evolves around "life" and "nature". In the following extract Kahn finally points out tradition's most important role- and a profound concept from that understanding.

"Tradition is a sense of validity.

It is not so much what you see, but what you feel.

If you feel the reflection of something, it is beautifully stated. It reflects something, which you would like to extend the expression of, although you may not know its background. It transcends the knowledge about it. You see it and you feel that you must see it. It is the kind of thing, which you would not see in nature without man.

It spells an association of man to man.

It spells civilization." [37]

The key point to remember here to refer his work against will be "if you feel the reflection of something, it is beautifully stated...it reflects something, which you would like to extend the expression of....

...it spells an association of man to man.

"And I realized that an old Etruscan mirror out of the sea, in which once a beautiful head was reflected had still with all its encrustation the strength to evoke the image

of the beauty. It's what man makes, what he writes, his painting, his music that remains indestructible. The circumstances of their making is but the mold for casting. This led me to realize what may be Tradition. Whatever happens in the circumstantial course of man's life, he leaves as the most valuable, a garden dust which is the essence of his nature. This dust, if you know this dust, and trust in it, and not in circumstance, then you are really in touch with the spirit of tradition. Maybe then one can say that tradition is what gives you the powers of anticipation from which you know what will last when you create." [38]

The greatest realization from tradition is expressed here. It is this realization that imparts to architecture greater values and timeless quantity. A tremendous requirement of sensitivity is hinted here to achieve the required validity and acceptance.

It also becomes clear that subjectiveness, elemental expression, and superficial connections find no place in Kahn's work.

In the later chapter we will see Kahn exercising these very ideas in achieving a contextual architecture without any shortcomings. Delivering the very timelessness that he talked of.

"We should be less selective and more probing." [39]

It seems appropriate to close this chapter with these words as we often tend to look for direct links in expression and sometimes look on to architecture with the same constitution of mind. To find context in Kahn's work one has to look at things through his own eyes.

CONTEXT:

PLACE, CLIMATE, ARCHITECTURE.

"We are all born with a sense of what to do. Within our own singular limits we know instinctively that, given a sufficient opportunity to put this instinct into practice, we know what to do almost instantaneously, if what we do is true to our singularity.

But how to do it we are not born with. We must learn to speak, we must learn to use tools. If you make a great virtue out of just how you do things, it is the least important of all." [40]

"How delicate then is singularity!" [41]

To assume that there is one answer in architecture is probably the greatest fallacy. And to assume that the individual can exercise his will without reference and context is the greatest blindness. Kahn beyond his metaphysical understanding of context can be directly resiprocative to architecture's truest reference-climate. In fact his extreme sensitivity and willingness to learn in this field has helped him shape his building to a "natural" quality of order. It is this great realization that he has imparted to the work in these region which has made his work extremely contextual and sensitive.

This remains a lesson for us, as it becomes the chord to the manifestation of architecture.

The following extracts exemplify Kahn's clarity in the understanding of place, climate and architecture.

"I am doing a building in Africa, which is very close to equator. The glare is killing; everybody looks black against the sunlight. Light is a needed thing, but still an enemy. The relentless sun above, the siesta comes over you like thunder.

I saw many huts that the natives made.

There were no architects there.

I came back with multiple impressions of how clever was the man who solved the problems of sun, rain, and wind.

I came to realization that every window should have a free wall to face. This wall receiving the light of day would have a bold opening to the sky. The glare is modified by the lighted wall and the view is not shut off. In this way the contrast made by separate patterns of glare which skylights grills close to the window make is avoided. Another realization came from the effectiveness of the use of breeze for insulation by making of a loose sun roof independently supported and separated from the rain roof by a head room of six feet. These designs of the window and wall and of the sun and rain roofs would tell the man on the street the way of life in Angola." [42]

His natural acceptance as climate being the natural order where 'sun' plays the chief role of 'form maker' directly influences his thoughts and architecture as Tyng points out in her writings.

"A second line of development arose simultaneously from the consulate project for Luanda. The "ruins" that were intended to shield the walls from glare became in Kahn's subsequent schemes an integral part of the structure. Kahn himself pointed out that his solution for filtering light into the buildings at Ahmedabad (began 1962) was far superior to that for Luanda. He set the windows of the Ahmedabad school building back away from the facade in long niches that he

called “reverse bay windows”—similar to the Mikveh Israel columns—so that there is no need for sunshades, blinds, polarized glass, or any other applied device. With similar intentions, the dormitory windows are sunken into hollows behind arches so as to create cool pockets of shade. At Dhaka, also, Kahn incorporated the shielding elements into the structure itself by designing “anti-glare porches” for the hostels, beyond which direct sunlight does not pass.

A synthesis of the two offshoots of the Luanda project—the hollow column and the “ruin”—can be found in the Suhrawardy Central Hospital at Dacca, designed in 1963. The hospital’s brick arcade, which stretches across the low facade, projects the inner spaces from glare and is firmly bonded into the structure by a three-dimensional system of arches. The space created within this system forms as arcade that catches the sunlight and shelters a second inner hallway from glare. The difference in the amount and quality of light that reaches the outer and inner hallways is remarkable. Like the Salk Lecture halls, the hospital is essentially a building for living, surrounded by a building for the sun.

As Kahn’s ability to work with light grew more sophisticated, he found himself putting into words the feelings he was exploring through design. In the mid-1960s, he was involved in projects in which he paid consistent attention to light’s interaction with space. He spoke of introducing a light-giving structural element into the assembly building at Dacca; at the same time, he observed how much ancient buildings as the Greek temple and such contemporary works as Le Corbusier’s Ronchamp let light into the interior spaces. By 1967 Kahn integrated his observations and experiences into words. Establishing the interdependency of light and structure, he explained that light within it. He was attempting to describe the spiritual quality of light, something that he was already describing figuratively

in such buildings as the Mikveh Israel Synagogue, the Shurawardy Central Hospital and National Assembly at Dacca, and the Indian Institute of Management at Ahmedabad." [43]

As we can see the context of place and climate was very important to Kahn and played an important role in his "Form" making. Nature found a natural response in his architecture as well as being a guiding force. His sensitivity and objectivity generated a sympathetic manifestation. Above all the profoundness that generated from understanding and observation became a strong characteristic in Kahn's work.

CHAPTER 7

CASE STUDY:

INDIAN INSTITUTE OF MANAGEMENT, INDIA

Ahmedabad, founded in 1411 AD by the Muslim king Ahmedshah on the east bank of the wide river Sabarmati, which is a dry gulch for most of the year and then scoured by seasonal flood waters. It is an ancient city, but its Hindu origins were largely obliterated fifteenth century, it is today the fifth largest metropolitan center in India.

During the nineteenth century and in the first half of the twentieth century Ahmedabad flourished as a major industrial center, famous for its textiles — it became the Manchester of the western India.

As in Manchester in the nineteenth century, the twentieth century merchants families of Ahmedabad sought to use their wealth to give their city cultural ornaments; the Indian Institute of Management (IIM) is one of the consequences of this. It was the Sarabhais who sponsored the IIM project in 1962.

In 1962 Louis I Kahn was engaged as a consultant architect to the National Institute of Design (NID) for the design of the second institute of Management to be built by the Government of India.

The site selected was about 66 acres of almost flat farmland near the village of Vastrapur, approximately 8 kilometers to the west of the city center. It is surround by universities, institutes, and various types of organizations.

The connection of learning with enlightenment -contribute to his making of the institute in the light of a monastery rather than the transformation of requirements into classrooms his architecture of IIM reflects his idea of institution of learning and its contextual development in accordance with place culture and history.

A dream was made a distant moon ago here

Management as a science must be taught

And there's a high ideal to the work here In Camelot...

B.V. Doshi [44]

For Kahn the making of IIM in Ahmedabad was much more than making an institute of management. He was making a place of enlightenment - a place of learning, an institution of learning and sees learning, as a great entity be it management or whatever. - his perception of learning live on. This chapter covers the IIM and attempts to show its contextuality according to Kahn's perception on context. The chapter also includes details of the mosque and institutions at Sarkej in Ahmedabad and shows remarkable reflections of it in Kahn's work, which will in turn establish Kahn's sensitivity

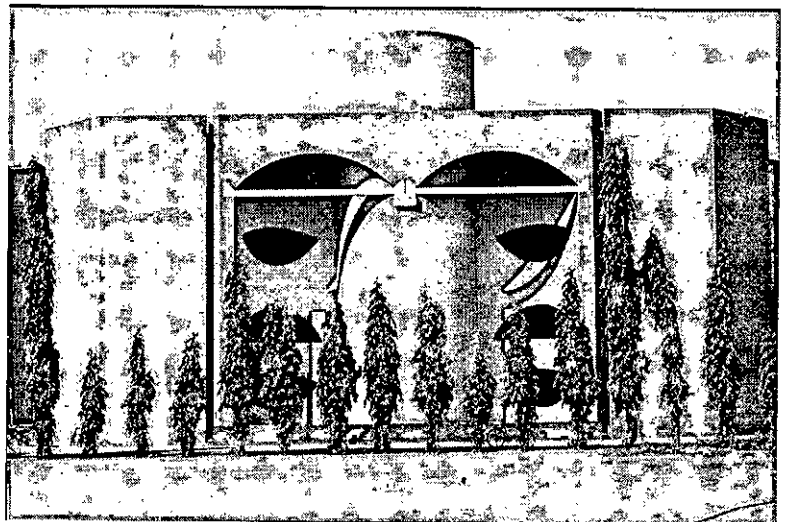


Fig. 1: Dormitory.-----An abstract, universal, architectural language

towards place and architecture. It will also establish Kahn's ability to be extremely contextual yet profound by weaving the threads of climate, culture, history, purpose into the same fabric that holds the values and morals and basis of learning and transforms institution of learning in a timeless form.

"A visit to Kahn's Indian Institute of Management (IIM) at Ahmedabad, begun in 1962, is an extraordinarily moving experience which shows that Kahn knew what he was talking about and was able to imbue a modern building with an ageless quality.

The quality of Kahn's Indian masterpiece can only be fully appreciated when the building is seen in its context and when the difficult and prolonged process of its design and construction is understood." [45]

Kahn's absolution of context in terms of material climate and place delivers a building truly sensitive to what it should be.

It is probably Kahn's sensitive use of local material and his architecture that generates and shapes deep shadows, much needed in the harsh climate, combined with the monastic quality of the spaces that constitutes the character of the project making it at the same instance contextual and universally timeless. The material and the method of construction combined with space making, evolving from both climate and the vision of place of learning- are the primary points that demonstrates sensitivity and understand on behalf of Kahn. The following extracts exemplify.

"The IIM project also focused Kahn's attention on the nature of bricks as a load bearing building material (as opposed to its as a facing material), and on the need for economic construction and a low-energy building in a poor country and a

hot climate — in short, the project made Kahn think deeply about the possibility offered by combining the use of traditional materials and construction, and indigenous ideas about orientation and natural ventilation, with Western technology and expertise." [46]

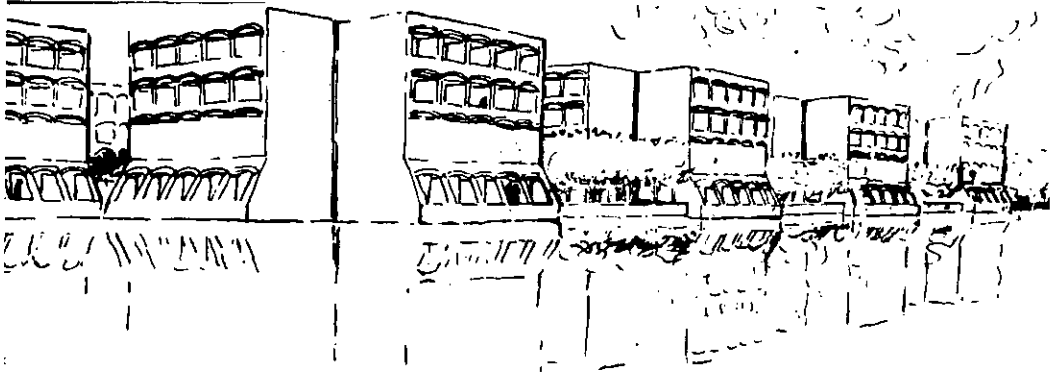


Fig. 2: "The dormitories"—material, orientation, site features all in context to place and climate.

"The IIM is also in its form and in its materials, one of the clearest expressions of Kahn's recurring romantic images derived from his experience of past buildings and historic places.

Thus IIM remains an ambassador for the contextuality of his work- revealing his understanding of all the peculiarities place climate and history and his way of transforming it to greater levels of human agreement." [47]

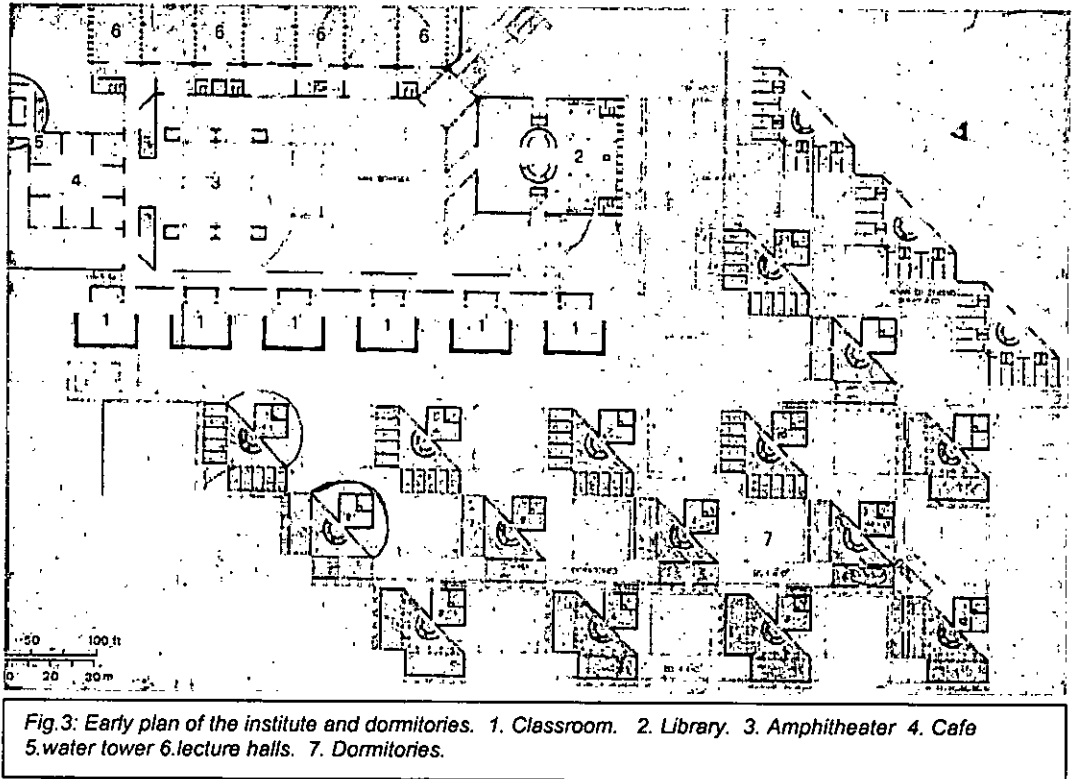
On the inception of the project, the following lines bear witness,

"Design begins

Kahn made his first visit to Ahmedabad in November 1962 — the first of more than a score of site visits.

He had been given the job as a result of recommendations from Balkrishna V. Doshi, who had met Kahn in Philadelphia in 1960 and who felt Kahn's presence in India, working on a major scheme, could be beneficial for the development of Indian architecture. Doshi first came to Ahmedabad in 1951 to manage the construction of Le Corbusier's museum.

So from the outset, the IIM had a doubly didactic role; it was not only to function as a business school, modeled along Harvard lines, but was, in the process of its design and construction, to act as a teaching tool for Indian architecture students.



This is important to the evolution of the design because it established a rather curious process.

Kahn's sketches — his first sketch plan were made in November 1962 — were given to National Institute of Design students who, under the control of Doshi, developed these into detailed and working drawings. These were then sent to Kahn's Philadelphia office for approval or, more likely, alteration by Kahn. As a rule there was no one in Kahn's Philadelphia office working on the project, apart from a number of students sent there by the Institute of Design as part of their education. Several of these were later to play key roles in the project, including Anant Raje, who took on the completion of the project after Kahn's death in 1974." [48]

Kahn first visited Ahmedabad in November 1962, which were given to the students of National Institute of Design under the control of Doshi to develop.

The developed drawing traveled back to Philadelphia for Kahn's attention and approval. It was Anant Raje, one of the students of National Institute of Design who worked on this project in Philadelphia who contributed in completion of the work after Kahn's death.

Kahn's first sketch plan was developed around a diagonal grid - which was oriented for wind direction. Also the planning principle incorporated the necessary implication of large variety of uses. Kahn chose brick as the primary building material, which was contextual in terms of material and economy. Beautiful details were developed expressing the character of brick and the reinforced concrete that was used. The presence of both the materials are unforced and take natural courses. In Kahn's words -----

"The buildings may look old-fashioned. An ancient material, brick, is being used and its order respected, concrete, a modern material, and its order, is being combined with the brick formulating Composite order." -----

"The combination of brick and reinforced concrete in two of their characteristics forms — the architecture and the lintel/tie-beam — gave the IIM its most striking detail." [49]

The following extract taken from the writings of Dan Cruickshank brings together the architectural issues addressed in IIM which talk of Kahn's aspirations in the development the plan and how his sensitive understanding of climate guides him to develop his forms.

"The material and external spaces created within the IIM complex are remarkable: the mix of public, semi-private and private space evokes what Kahn called his 'feelings of monastery'. It was devised as a place with spaces where

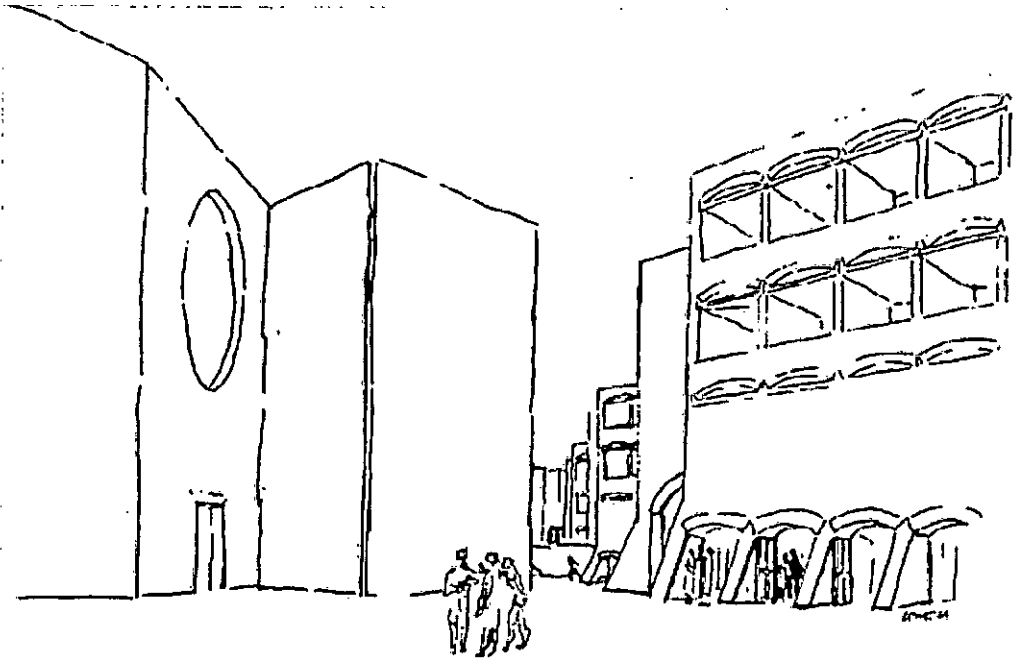


Fig.4: Early sketches of IIM .———The material, formal order, openings, scale——all contribute to the monastic quality of the project.

students and staff would not only meet formally, but informally: an architecture calculated to create a sense of community by juxtaposing formal and informal, large and small, and public and private spaces. This strategy was achieved not only by organizing building plans to create meeting places, but also by breaking down the conventional division between internal (private) and external (public) space. This strategy also reflected, indeed was partly a product of, Kahn's concern for natural light and ventilation; as he said, 'orientation to wind and shade from sun have given architectural elements to the composition.'" [50]

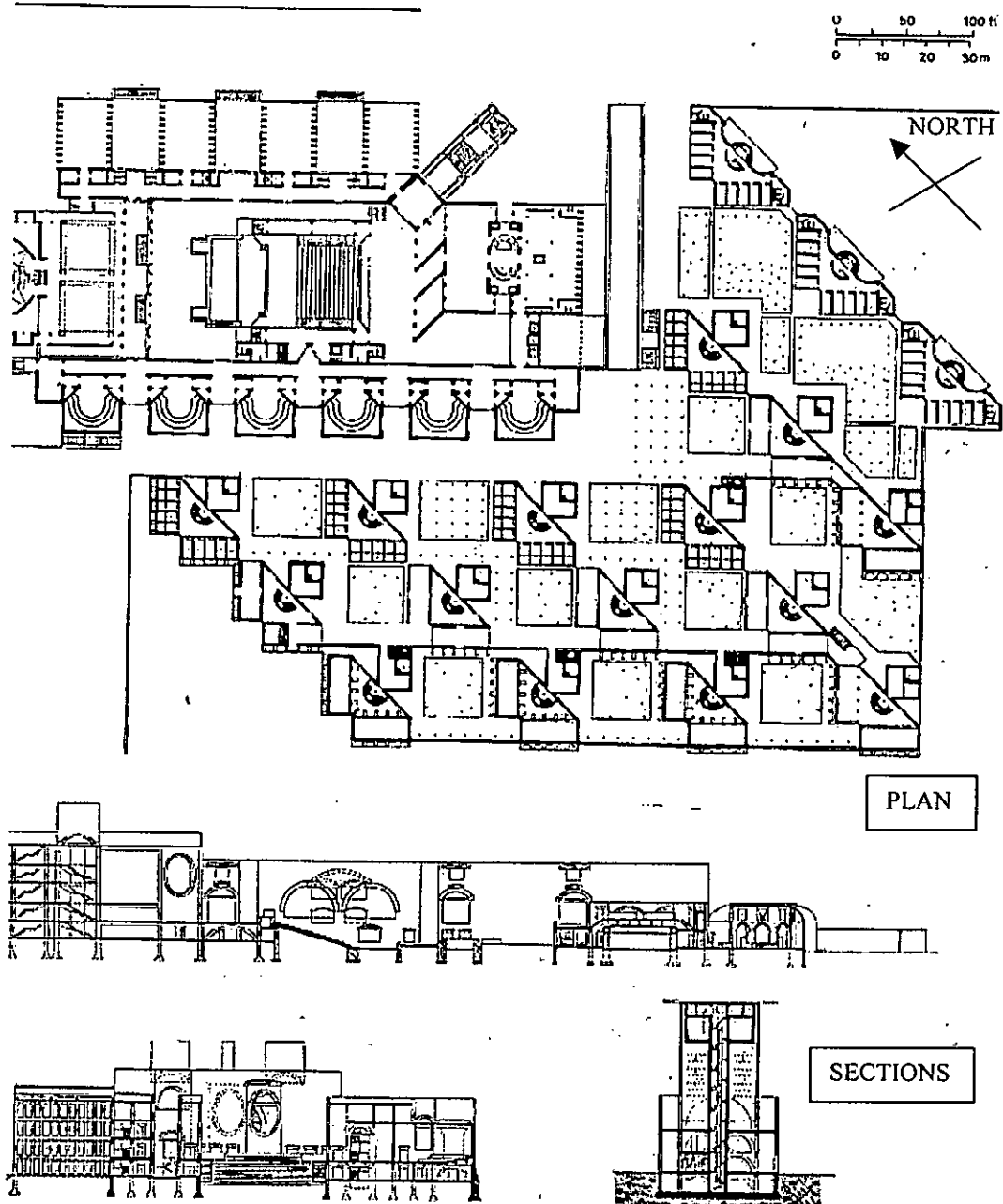


Fig.5: The most useful handling of climate is demonstrated in plan, elevation, section- and transform successfully from drawings to reality. Orientation, openings, layering, plays the vital roles in term of climate control.

"Whenever I talk about the creation of new institutions I think about the need to revise those which already exist. I believe that all human institutions are due to the inspiration of the people who created them. The need to learn stems from the form in reveals the form in which it was made. The rock reveals its essence as rock and human beings, their human essence. If we order all living beings in a hierarchy according to consciousness (in it way a rose too has a consciousness) we can come closer to understanding the history of our creation. Certain human beings posses the gift of being able to reconstruct the entire universe from the simple observation of a blade of grass. The need to learn is the wellspring of all teaching institutions. The school suggests to me a series of spaces in which it is possible to teach and to learn properly. The school originated in the moment when a man who didn't know he was a teacher sat down beneath a tree to discuss his insights with other men who were unaware that they were pupils. The pupils learnt, and wanted to be like their master. They wanted to educate their children, too. For this purpose they created a suitable space, and the first school had appeared. This was inevitability, since it was the consequence of human aspirations. The architect creates a space and gives it form alter having understood how it ought to be order to function properly." [51]

These words tell us about Kahn's perception of human institution well beyond program and requirement. The same profoundness has been imparted to IIM- which gives it a monastic quality- with the great central space-the library and the classrooms as the center and the dormitory at a different layer and scale like "cell". The education of management transcends its subjective boundaries and reaches out to touch the inspiration of " learning" and "enlightenment".

In Kahn's words...

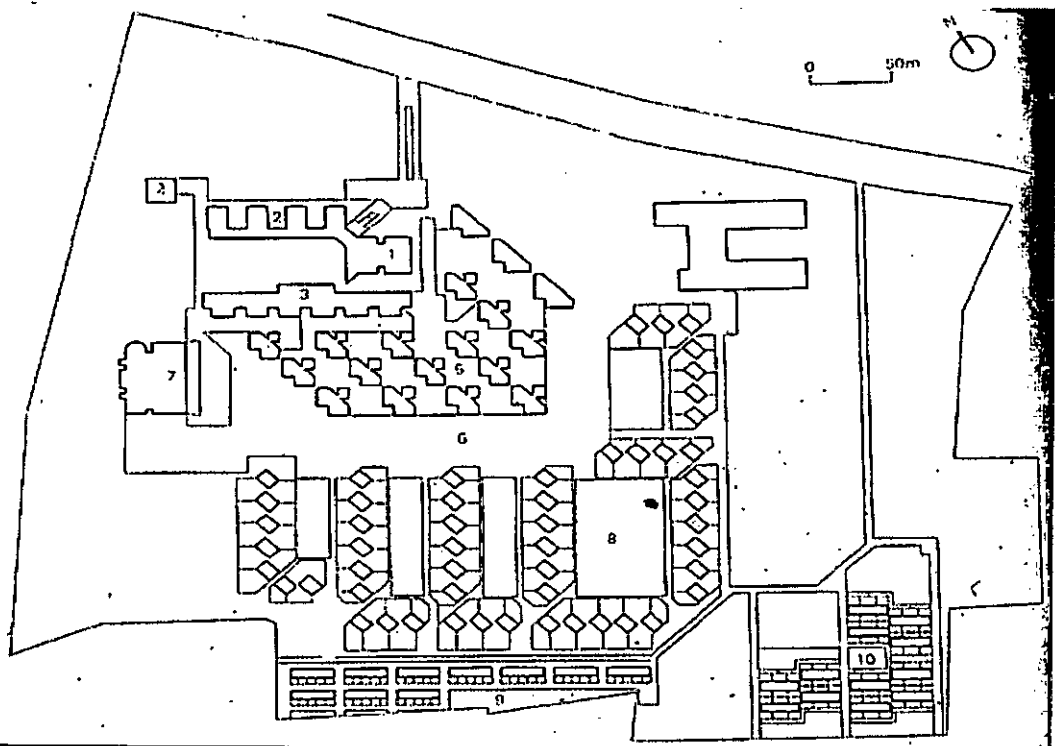


Fig.6: Final design. 1. Library 2. Lecture halls 3. Classrooms 5. Water tower 6. Waterbody 7. Cafeteria 8. Future extension.

"The plan comes from my feelings of monastery. The idea of the seminar classroom and its meaning, "to learn" extended to the dormitories comes from the Harvard Business School. The unity of the teaching building, dormitories and teachers' houses—each its own nature, yet each near the other—was the problem I gave myself. The lake between student and teacher is one way of distance with little dimension. When I found this way, the dormitories tended, psychologically, to break away from the school, though it has no appreciable distance from it...

You notice I made all these buildings answerable to each other even though the scale of the house and the dormitory and the school is so different. (1964)

I want first to begin by saying that architecture does not exist.

What does exist is a work of architecture. And a work is an offering to architecture in the hope that this work can become part of the treasury of architecture.

All building is not architecture.

One of the most important aids in the work I do comes from the realization that any building belongs to some institution of man.

And I have the greatest reverence for those inspirations from which the establishment of institutions came and from the beauty of architectural interpretations." [52]

The plan revolves around a central courtyard. This is the place of "meeting of ideas", the sanctuary of this monastic scheme. The court complements the library, the soul of the scheme. It is flanked by the classrooms and lecture halls. All these varied functions become answerable to the court. This scheme is amazingly similar to the Mosque, Shrine, and Madrasa development at Sarkej opposite to the Sultan and his wife.

In both IIM and Sarkej we first confront a forecourt.



Fig.7: Fore court of IIM



Fig.8: Fore court of IIM

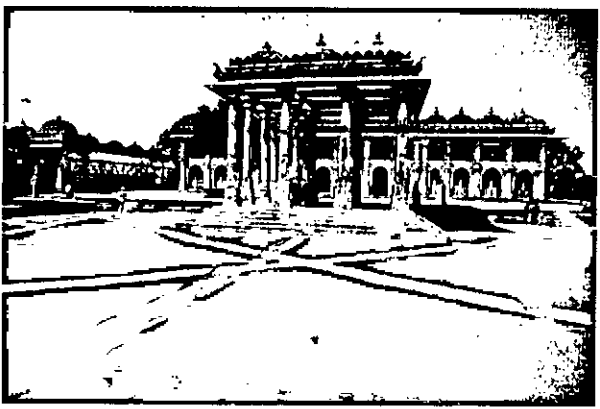


Fig.9: Fore court of Sarkhej.

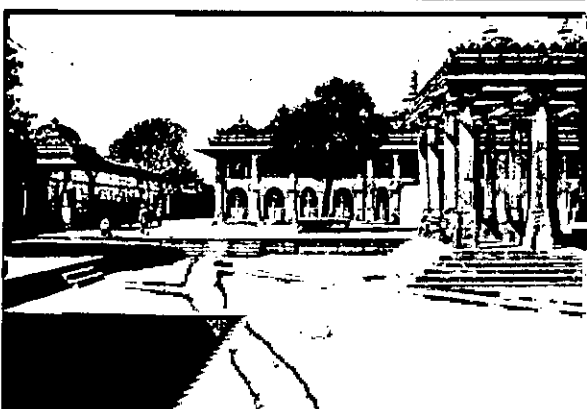


Fig.10: Fore court of Sarkhej

Then there is a gateway that leads to the inner court. The inner court has a focus at one end and flanked by spaces of library. In IIM the library is at end and the classrooms and lecture halls on the side. In Sarkhej we have the Mosque at the end and the classrooms and discussion areas on the side. [note following fig.]

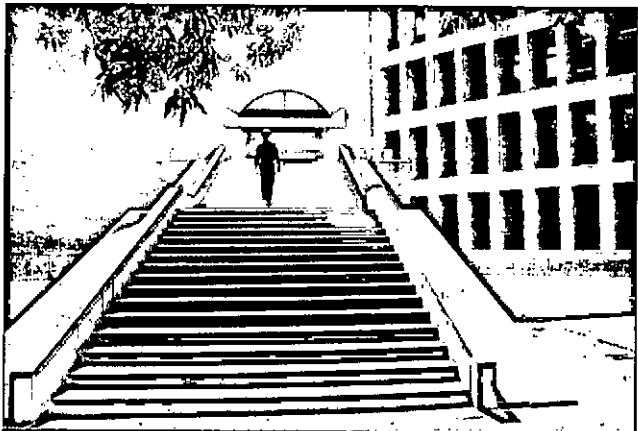


Fig. 11: Gateway leading to central court. IIM.

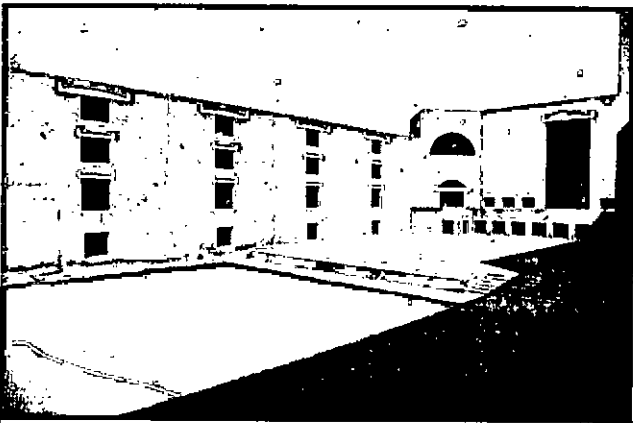


Fig. 13: Central Court of IIM flanked by classes and lecture halls with the library as the focus.



Fig. 12: Gateway leading to central court. Sarkhej.



Fig. 14: Central court. Sarkhej. Held by mosque as focus - and flanked by learning areas.

Deep shaded corridors that become meeting places for the students and one space leads to another holding the parts to whole characteristics of both developments. Beyond the central layer lies the lake on one side and open area on the other.

IIM had the same configuration before the lake was developed. This configuration generates a circulation of moist air to the central area.

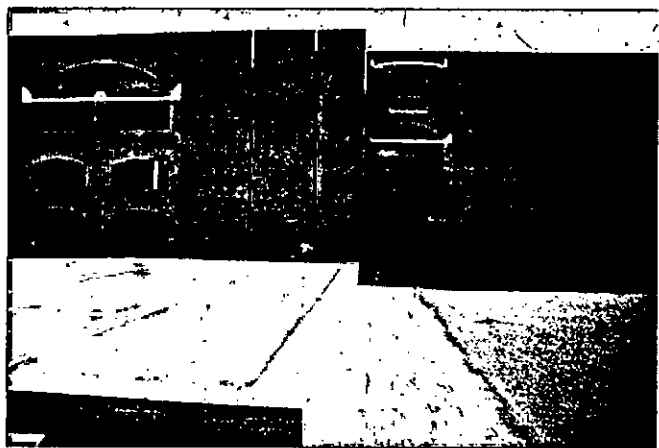


Fig.15: The teaching section as a combination of learning areas and circulation forming a screen and an intermediate between the central court and the water body(unbuilt) --IIM.

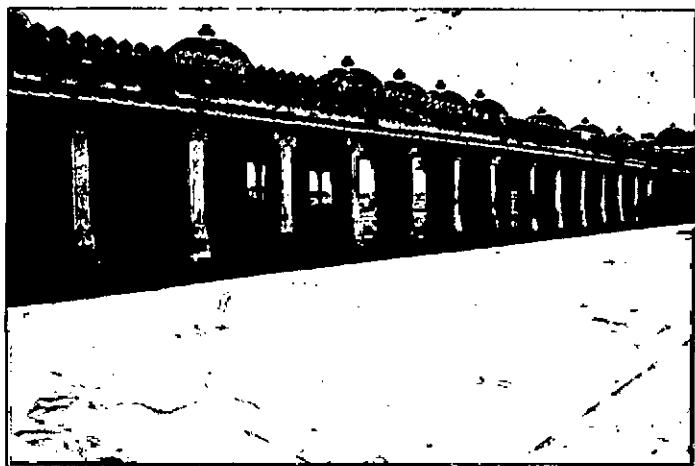


Fig.16: Combination of learning areas and circulation forming a screen and intermediate between the central court and the water body---Sarkhej

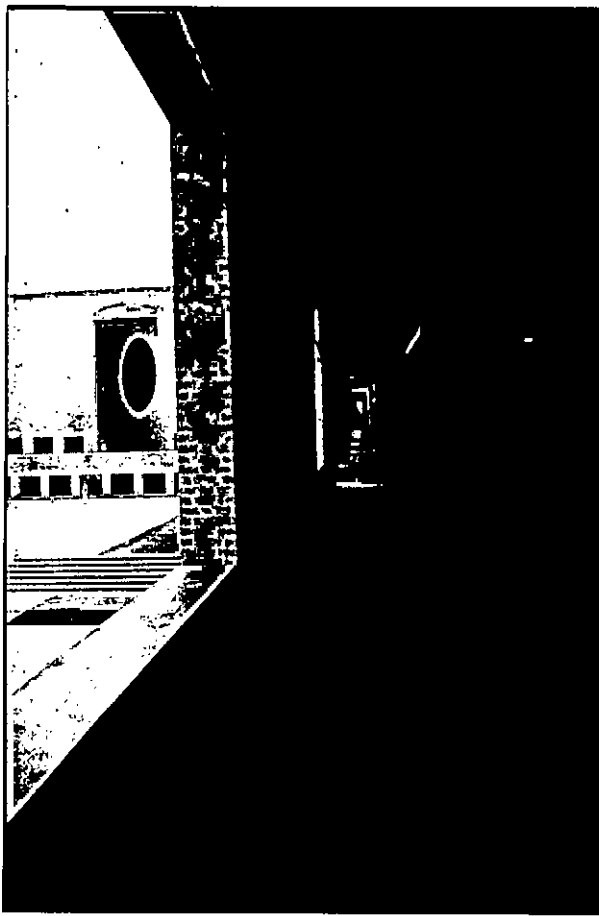


Fig.17: Corridors, sitting spaces, learning areas flanked by the court and the water body (unbuilt).



Fig.18: Corridor, sitting spaces, learning areas, flanked by the court and the water body. Sarkhej.

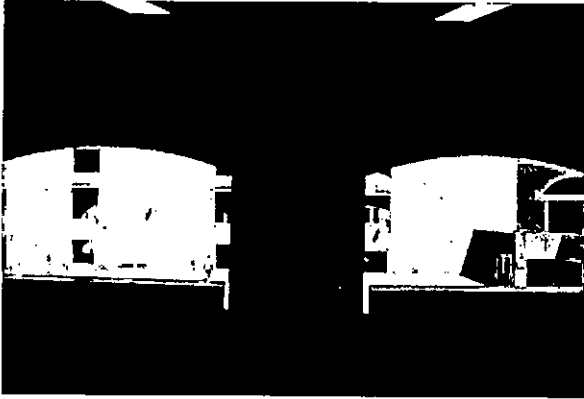


Fig.19: "Window Seat" aside corridor at IIM

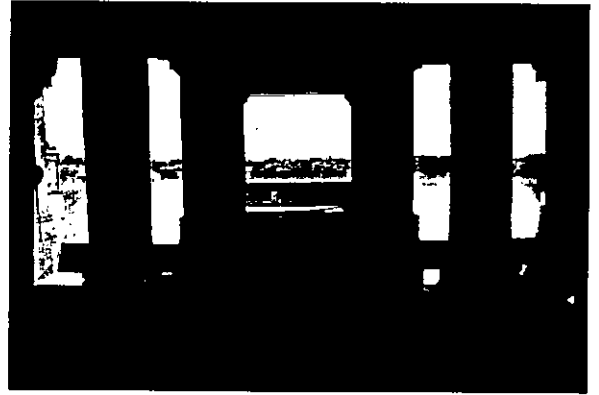


Fig.20: "Window Seat " aside corridor at Sarkhej

The stunning similarities between IIM on Sarkhej in ambience, morphology- spaces, climatical response and the visions of an institution in context to place and purpose.



Fig.21: Window seat at Sarkhej

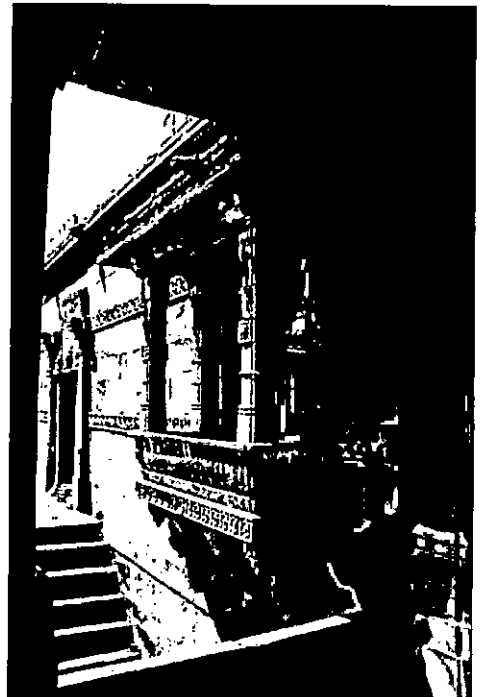


Fig.22: Window seat at Sarkhej



Fig. 23: Flanking Wings with view ports, IIM.

These uncanny similarities show how both the developments embrace context at its very basic level and transform the event of learning into an ageless entity.

In the scheme of IIM are many details that are developed from the understanding of the site, its climate and the necessary totality of the program, all culminating in fulfilling one of man's greatest institution- the institution of learning. The following extracts shall reveal this.

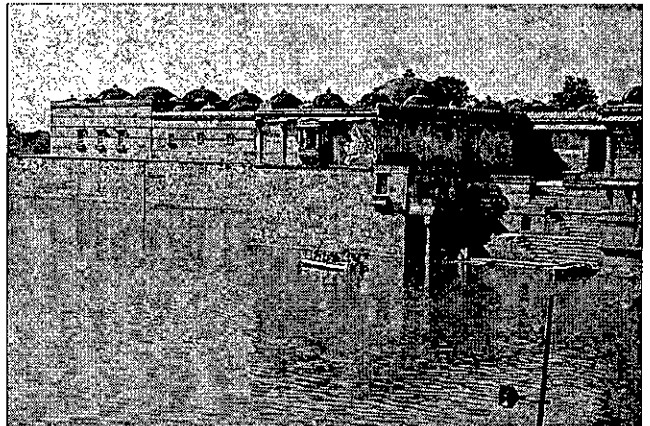


Fig.24: Flanking Wings with viewports, Sarkhej.

The following extracts will bear witness to Kahn's strong understanding of the climatic context and how he uses the context to develop the scheme for IIM imparting to it both sensitiveness and profoundness.

"A work of art is the making of a life. The architect chooses and arranges to express in spaces environment and in relationships man's institutions. There is art if the desire for and the beauty of the institutional are filled.

Orientation to wind and shade from sun has given architectural elements to the composition." [53]

"The houses are oriented to the wind, all walls parallel with its direction. They are placed diagonally around a court to enclose the court and retain the strictness demanded by the

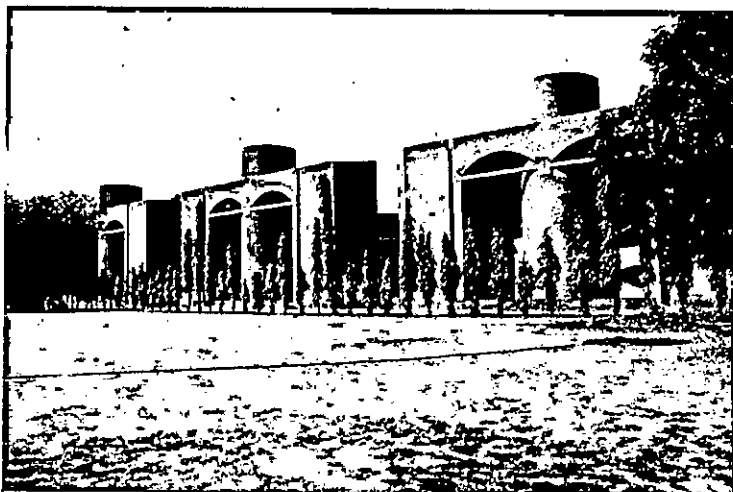


Fig. 25: Dormitories, with deep openings, oriented towards wind.

orientation. If you have a square, you find that two sides are oriented improperly. By taking the diagonal you form odd conditions, but you do answer, you can conquer this geometry if you want to. And you must relentlessly look at orientation as something that you give to people because it is desperately needed. That's the basis of these diagonal shapes." [54]

"Shade".

"Closeness".

"Buildings hugging buildings".

"It's all a recognition of the seeking after shade." [55]



Fig. 26: Orientation and placement of structures develop shade and scale.

One of the best descriptions of the architectural spaces developed is narrated by David B. Brownlee/ David G. De Long in his writings "In the Federal Architecture".

"Brimming with primitive tectonic energy, the Indian Institute of Management derived another kind of power from the academic life that it so effectively promoted. "When one walks around the complex silently," Doshi reported, "either in cool winter or hot and stark summer, one gets the vibrations of conversations, dialogues, meetings and activities. The spaces that are created for these activities link the entire complex."⁵² That is exactly how Kahn had hoped the second would work, for even before receiving the commissions, he had maintained that he best education was informal, like the gathering of students under his proverbial tree. He argued eloquently against the arrangement of classrooms along ordinary hallways—what he called "sneak passage [s]"—and in favor of substituting places for impromptu gathering—"spaces of no obligation." [56]



Fig. 27: A kaleidoscope of places of interaction

Though the harshness of the climate always played an underline role — Kahn transformed his understanding of the climatic context into a profound level, from which he manifested scale, meetings, dialogue, activity shade, etc. Kahn's philosophy of institution of learning found its place of celebration in this project. This has transformed the project from a mere academic institution to a spiritual

place of learning and illumination, partaning to the very essence of Man's institution of learning.

As Kahn states,

"In school as a realm of spaces where it is good to learn, the lobby measured by the institute as so many square feet per student would become a generous Pantheon-like space where it is good to enter. The corridors would be transferred into classrooms belonging to the students themselves by making them much wider and provided with alcoves overlooking the

gardens. They would become the places where boy meets girl, where the student discusses the work of the professor with his fellow student. By allowing classroom time to these spaces instead of passage time from class to class, it would become a meeting connection and not merely a corridor, which means a place of

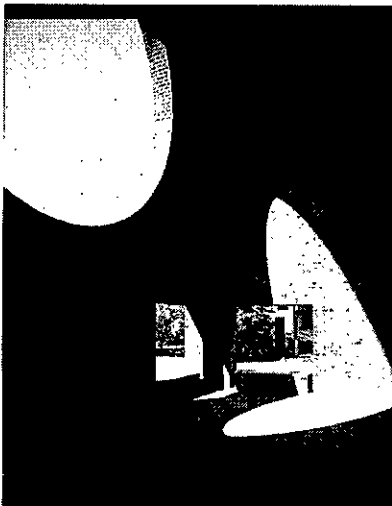


Fig.30: Places of transcended nature

possibilities in self-learning. It becomes the classroom belonging to the students. The classrooms should evoke their use by

their space variety and not follow the usual

soldierlike dimensional similarity, because one of the most wonderful spirits of this man under the tree is his recognition of the singularity of every man." [57]

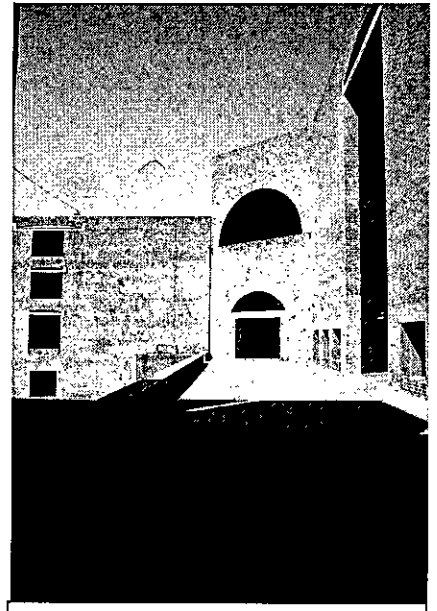


Fig. 28: The entry point

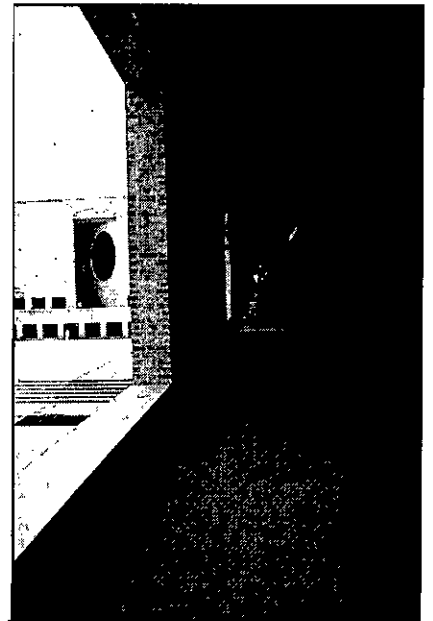


Fig.29: Corridor transformed into places of interaction

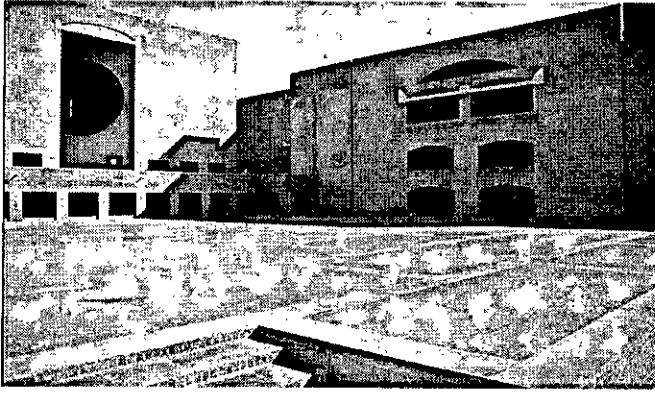


Fig. 31: The Library overlooking the court

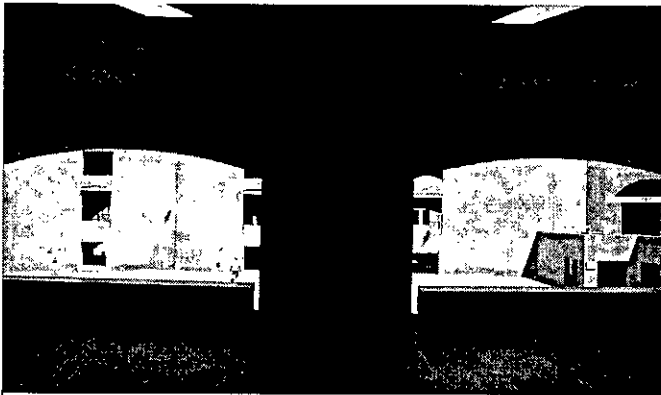


Fig.32: Openings as galleries for the court

Kahn said, "The court is the meeting place of the mind, as well as the physical meeting place." [58]

It is truly amazing how Kahn is able to meet all climatic requirements, site conditions, and spatial needs and yet transfer all this into a scheme in search for human aspirations and fulfillment. Finer concepts like "meeting places", "places of interaction", places for singular expression, places for human agreement all these effortlessly become part of the whole. It is from these extracts that the

"Presiding over the courtyard at one end was the austere face of the library, illuminated by two vast glazed circles set within a shady recess. At the other

hed kitchen set within a smell-confining truncated cone, and for the center of the courtyard he designed an amphitheater. Reflecting on the usefulness of this kind of

plan for schools in general,

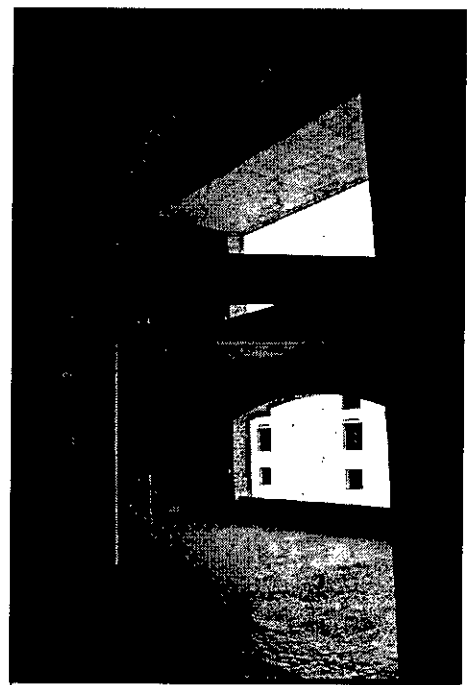


Fig.33: Corridors transformed into places of interaction

mastery of his oscillating between the particular and infinite is re established. How the passage responds to the climate, historical reference and to the need for "classroom of the student" is a demonstration of his ability to address context at the level of place, culture, climate and simultaneously at the level of "architecture" of timeless value without inhibitions of style or cliché.

The following extracts on the dormitories provide more proof of his handling of the physical and the metaphysical in an effortless coherence, and clarify the design approach of the building.

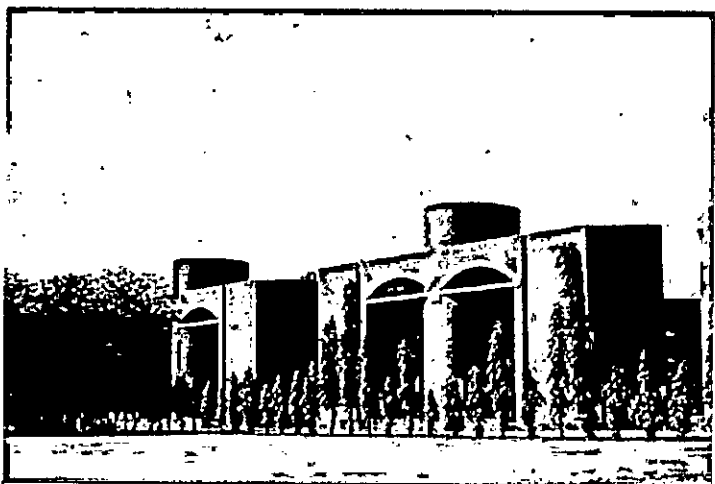


Fig.34: Buildings derived from climatic response

influenced their elevations. These specifically Indian conditions demanded ventilation of the interiors and protection from the harsh Gujarati light. Throughout the housing and the school building, interior rooms were protected from direct light by balconies, hallways, and lounges. The outer screen walls were often punctuated by giant arched and circular openings." [59]

"A combination of function and climate determined the dormitory plans, and a similar balance between climate and material

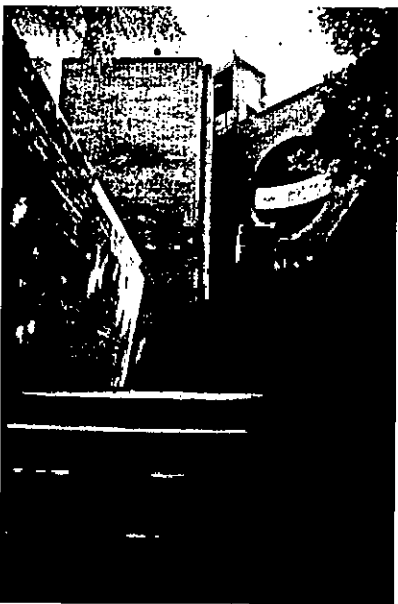
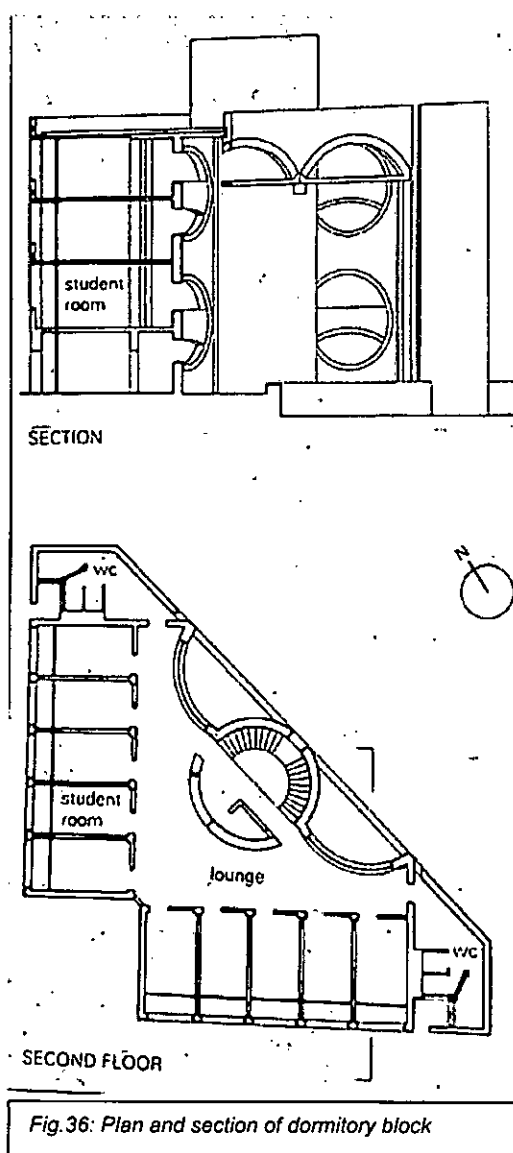


Fig.35: A play of shade and shadows



"The dormitory rooms, in groups of ten, are arranged around a stairway and tearoom hall. In this way, corridors are avoided, favoring the making of rooms, which contribute to the central idea, calling for plan and residual spaces for casual, and seminar study. The tea-room entrance and positioning of the stair and washroom serve to protect the rooms from the stair and glare without obstructing the essential through breeze." [60]

"The fullness of light, protected, the fullness of air, so welcome, is always present as the basis for architectural shapes." [61]

"The school and the dormitories are a unit, like a monastery. Corridors are avoided by having deep porches of all the dormitory rooms, where tea is served, and things are discussed. The school is around a court, which has in it an amphitheater. Everything here is planned around the idea of meeting." [62]

Also noteworthy is Kahn's extreme sensitivity towards culture, history and how he is in the midst of site constraints and philosophical standpoints harps on historical value is unparalleled the following comments of IIM shows this.

"The inner court will be shielded during certain ceremonies by a large canopy spanning eighty feet. What gave me the courage to do this was the architectural

provisions made in the courtyard of the Akbar Palace at Lahore for the same purpose. You know, the people in India make wonderful cloth and they have stretched even greater distance with it. This court is different from things I have conceived before. It gives such a joy to be the one to discover a beautiful way of life that belonged to another civilizations."[63]

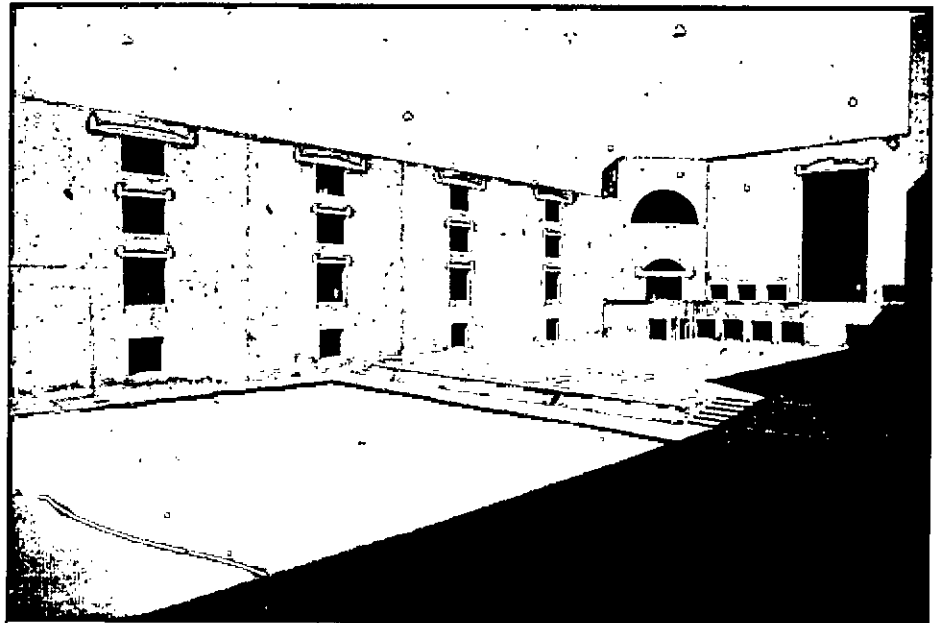


Fig.37: The court for activities.

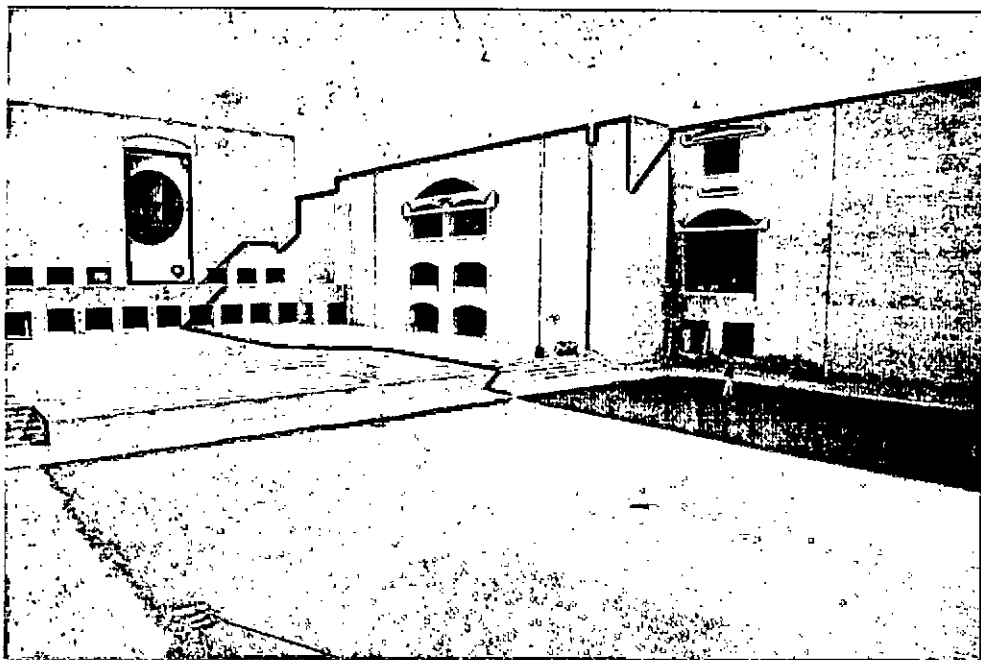


Fig. 38: The court for activities, with flanking opening as "galeries"



Fig. 39: The landscape, the openings and built form create a wonderful play of shade and shadow — which in turn creates a wonderful sense of scale.

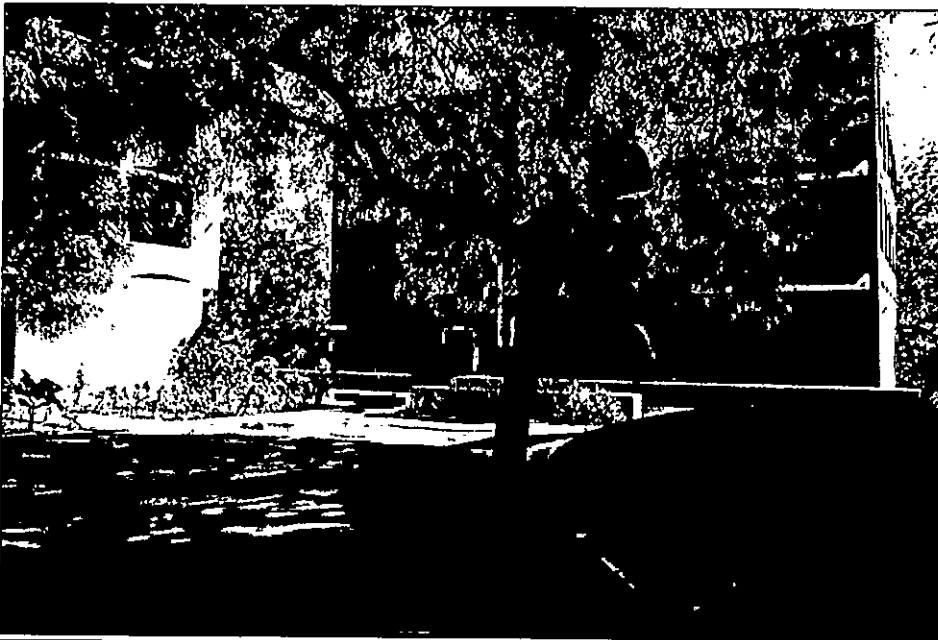


Fig. 40: Vegetation and building placement contribute to the creation of shade and scale

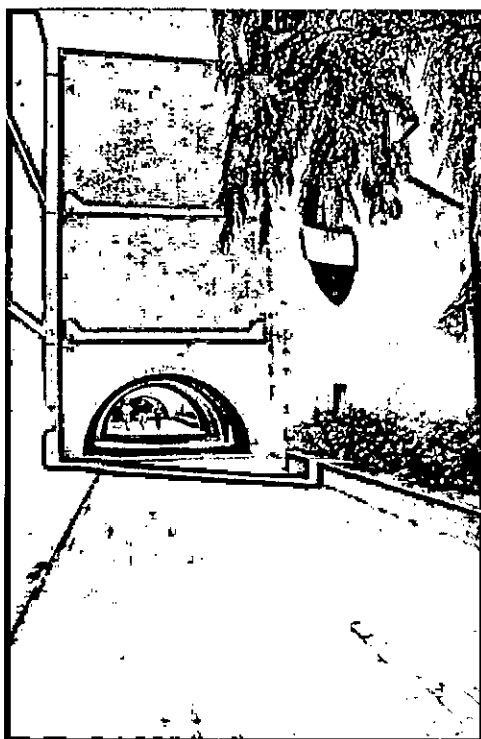


Fig. 41, 42, 43: Deep shades and timeless form built with local materials evolved in an architecture sensitivity to place, climate and building technology.

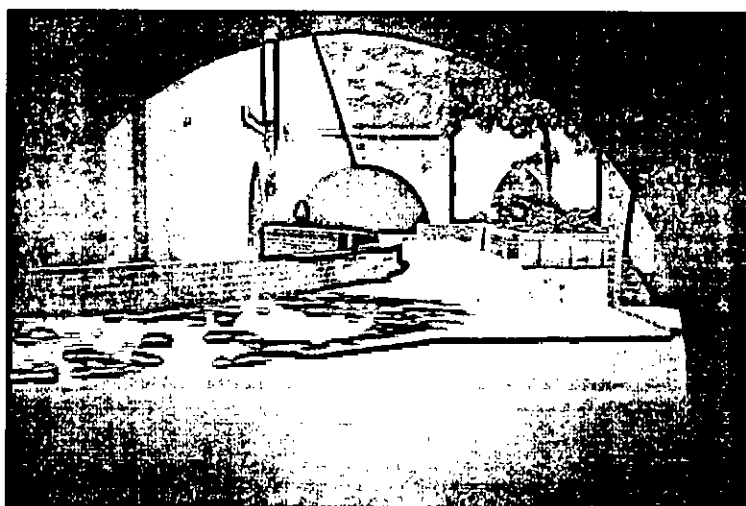




Fig. 44: The faculty residence.



Fig. 45: The faculty residence.

The context of climate, culture, history, the "will" of building; "human institution" and the value of timelessness- all are wonderfully understood and exercised in this memorable project. It seems befitting to conclude in the lines of ...

"The IIM remains one of Kahn's greatest achievements; if only because the scale of the project matched the scale of Kahn's imagination. It is also the most complete built expression of so many of Kahn's feeling about architecture and one of the most powerful expressions of his determination to reinvigorate Modernism by introducing a concern for history and building tradition." [64]



Fig. 46: Modernism aside History and Tradition

It is also important to note Kahn writings on Gandhinagar- where his extreme sincerity to context is beautifully expressed.

"I had an assignment which could not be carried out: the building of a city of eventually five hundred people, the capitol of Gujarat State of India known as Gandhinagar. The Summamati River is dry except when the monsoon comes and mountains of water go down that basin. It all goes to the sea. I thought of bridges that straddle the riverbed, which could be reservoirs at the same time capturing and storing the water that goes down at the times of the monsoons. From such points there would be viaducts that run to stations in the future city. These stations would be the center of the fire stations, the police stations, the center of maintenance, the center of air conditioning, the center of water supply. The mango trees, which are sacred, stayed just where they were. They became the points of departure for the area, the sectors of the living quarters. The streets were oriented in accordance with the wind. There the employment of the utilities- which also follow the water lines, the natural features, the stations of water which mean a tremendous amount in a town in India- was the basis of the plan. It had no other theory in back of it but that of these orders." [65]

These words should remain as a beacon for all of us who are confused and distorted in our war of styles and ism.

Site, water, place, culture, supercedes individual dogma by far. They are the true basis of architecture and the true presence of context. They possess and inherent order that we have to search and reveal or the value of timelessness will include us forever.

CHAPTER 8

CASE STUDY:

FAMILY PLANNING CENTER--KATMANDU, NEPAL

Though Kahn's work in Nepal was greatly incomplete it is worth looking into in the light of context. The Royal Government of Nepal decided to have a central office building complex for the HMG Family Planning and Maternal Child Health.

Kahn was commissioned for the project in 1970.

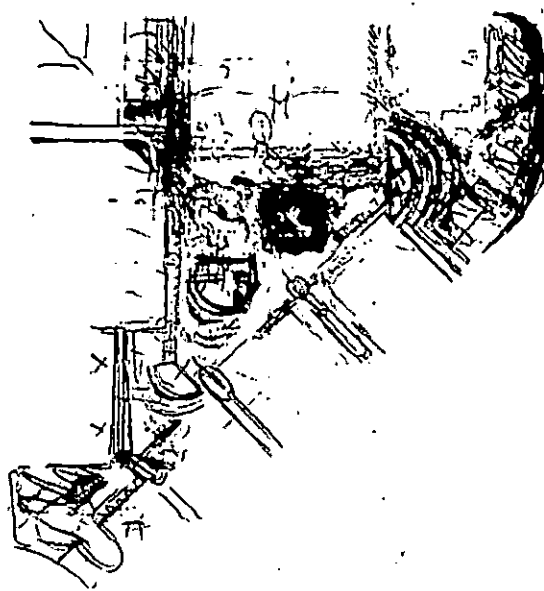


Fig. 47: Sketch of Masterplan

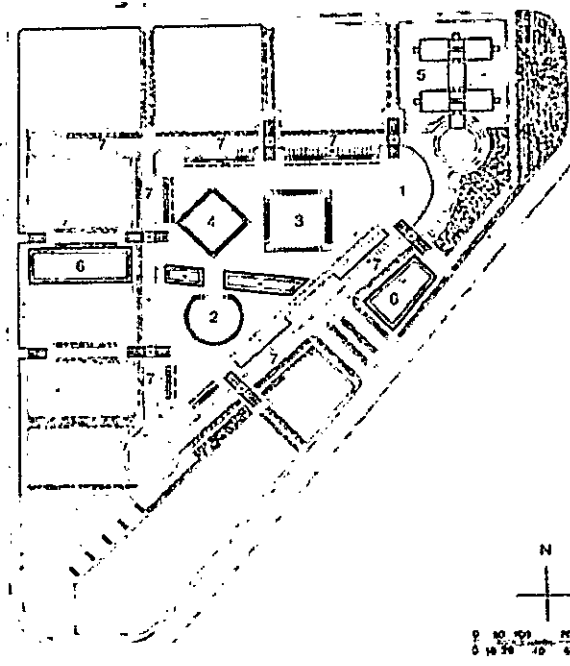


Fig. 48: Drawings of Masterplan
1 Family planning center, 2 Garden,
3 Auditorium, 4 Secretarial annexe, 5 Garden
of utility, 6 Arcades and bazar

The site was triangular measuring 1 1/2 acres.

Kahn proposed to position several institutions on the perimeter of the site, and to create a central plaza with provisions for auditorium, public gardens, and other common functions. It was to become the "center of availabilities."

In this work we will see Kahn picking up from the Nepalese architecture- its morphology of space, material and even detail and subtly incorporating them into his idealist, purist, and abstract language.

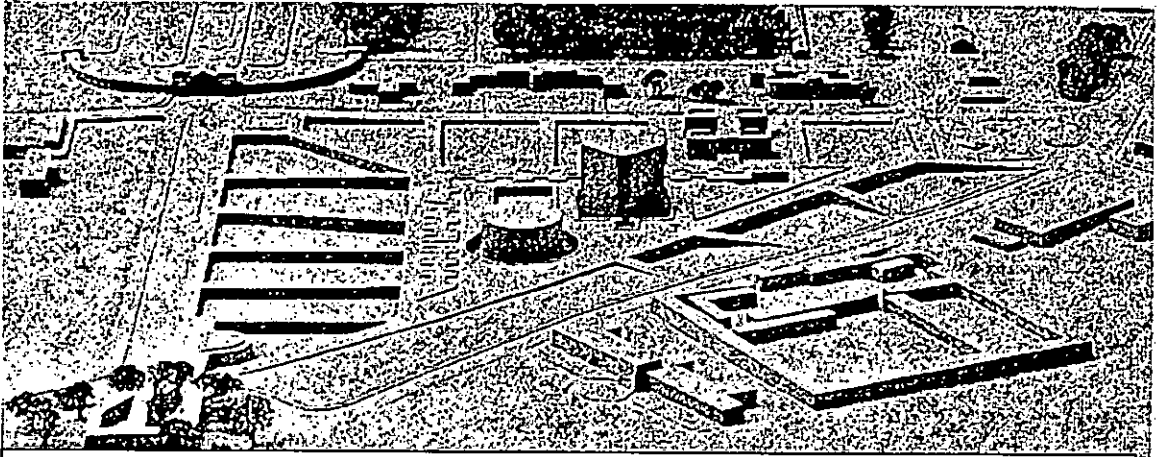


Fig. 49: The Site Model

The picture of the model showing the "center of availabilities" shows the cylindrical auditorium and the cubic secretariate on the triangular plaza.

The office and training center building are on the periphery and to the top of the picture only one of the central office section and training section building have been completed.

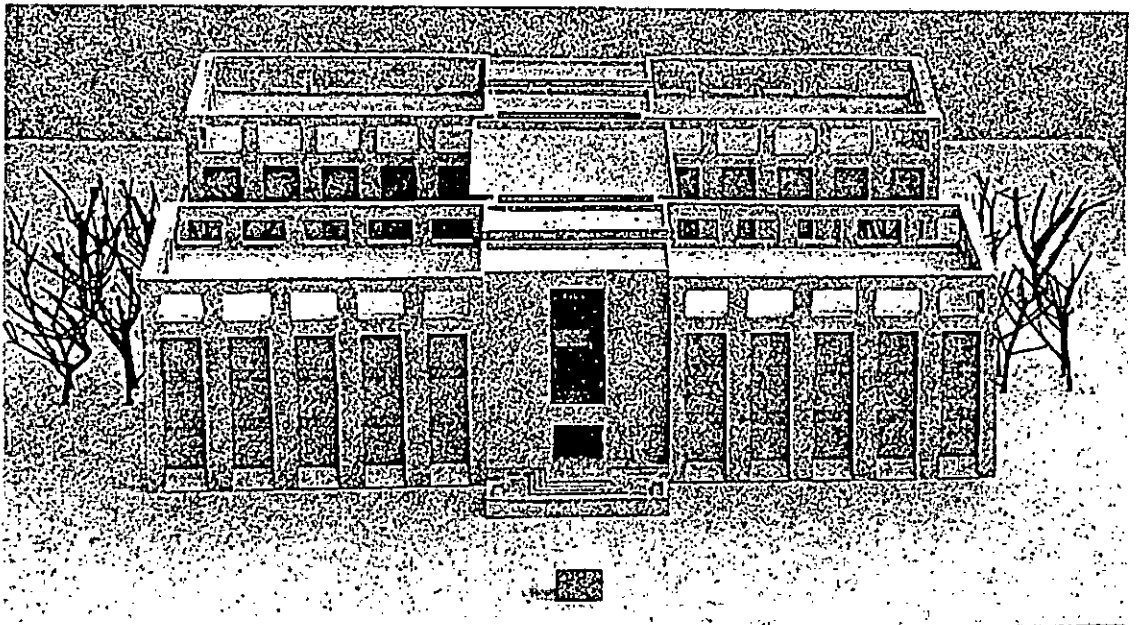


Fig. 50: Model of the structure that has been partially completed

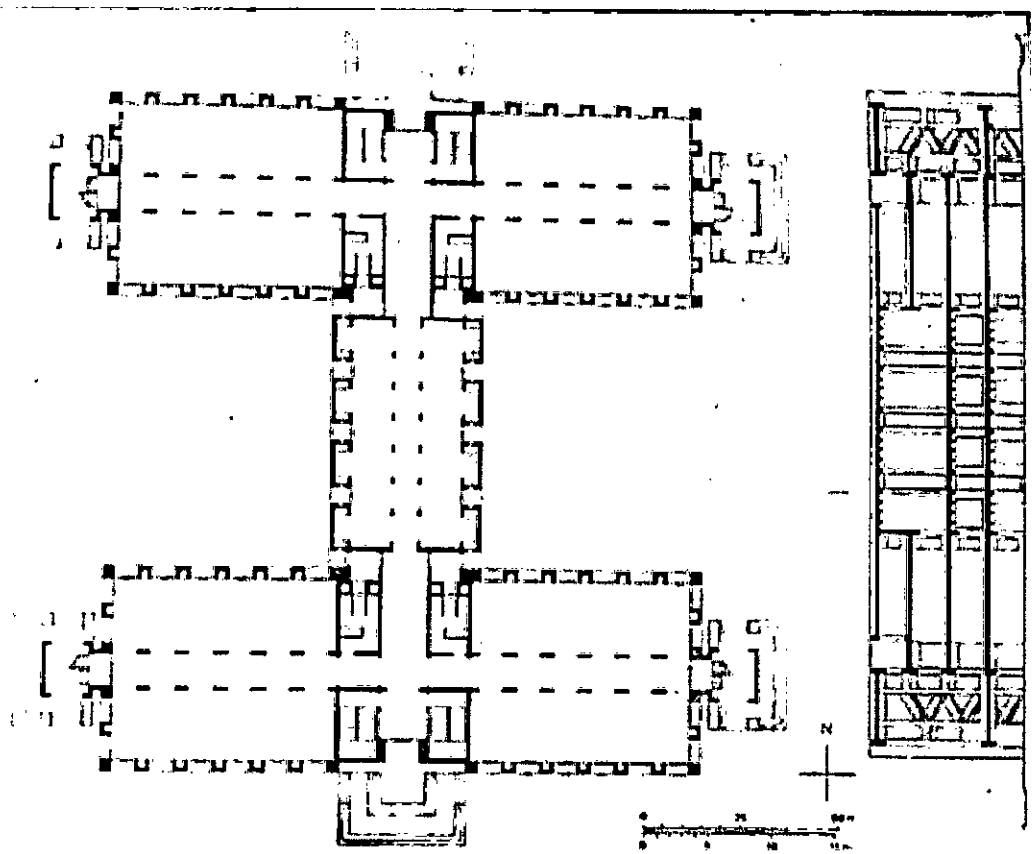


Fig. 51: Plan and section of the building, part of which has been completed as shown in the photographs later.

Even this one building is enough to give us hints as to Kahn's total concepts and his sensitivity to place and architecture.

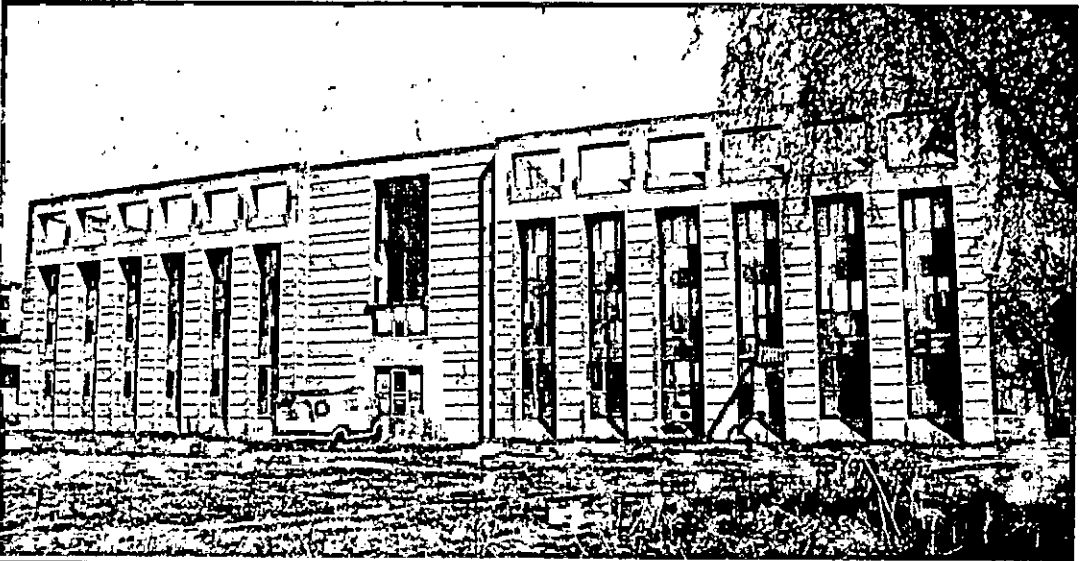


Fig. 52,53: The only completed structure

First of all in the master plan we see the scheme of isolated buildings organized along the periphery- with the "place of availabilities" or literally place of activities and common functions in the center. This is quite different from the compound and complex architecture he developed in neighboring India and Bangladesh. This arrangement is however is quite typical to the old administrative complexes of Nepal. Also the details in terms of emphasized drip course - generating a feature and the opening at termination- forming viewports, draws strong resemblance of

Nepal's brick building with ornamental drip courses and viewports at their top most levels.

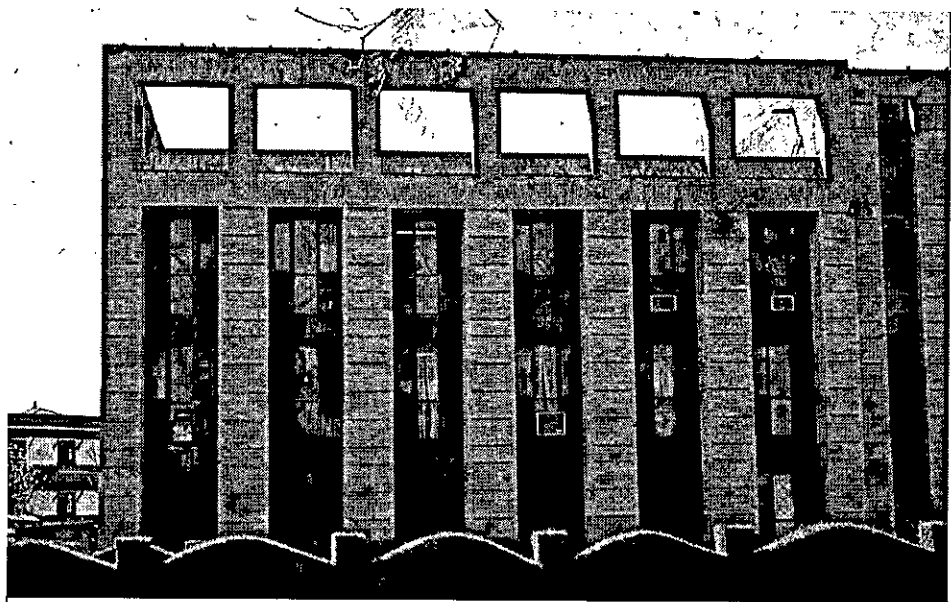


Fig. 54: Brick, drip-courses, wooden window frames, viewports at the top-all are reminiscence of past architecture of Nepal.

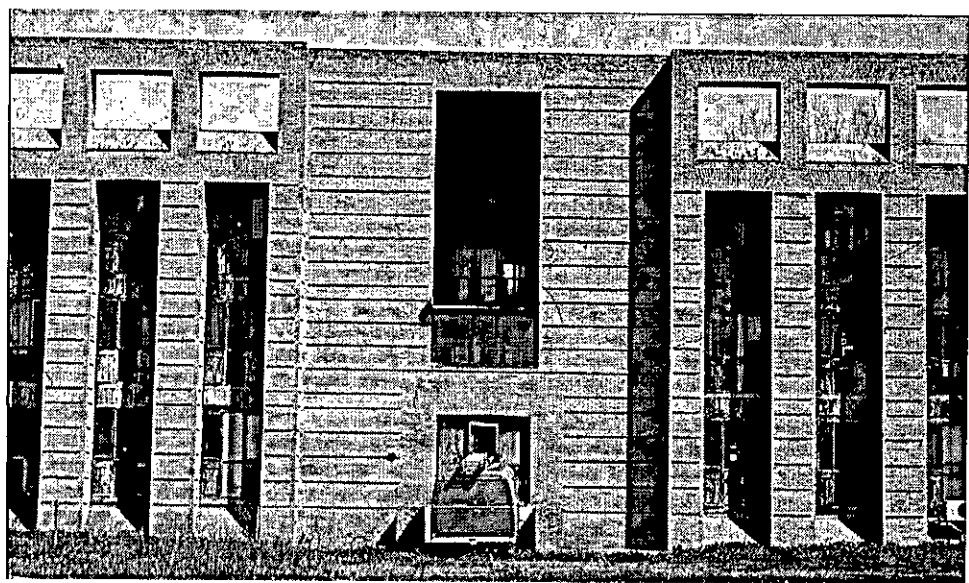


Fig. 55: Strong Kahnish character with strains of tradition and history

The layers of special brick with built-in drip courses- almost impart to the building an "ornamentation" that is so much a character of Nepalese buildings.

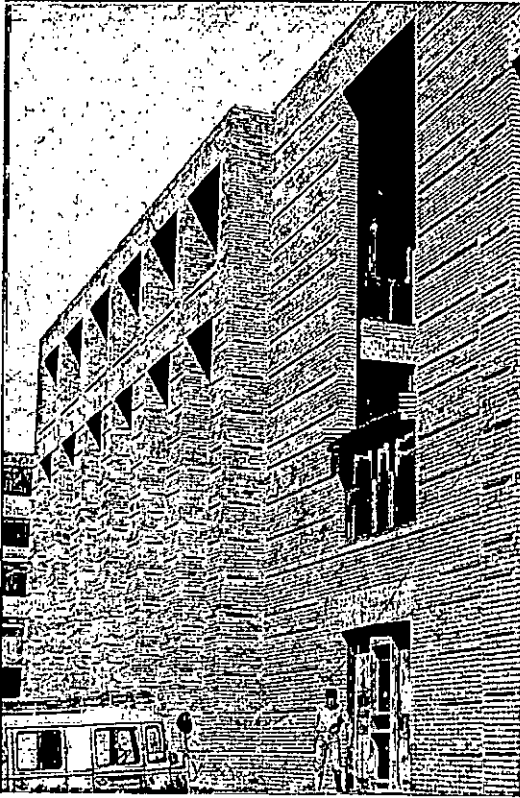


Fig. 56,57: The drip-courses add a ornamental quality which is a departure from Kahn's usual puritan approach - and move in time with the extensive ornamentation of Nepalese architecture.

The architecture of Nepal is basically adobe of wood. Even the name Katmandu comes from the word Kashta Mandab.

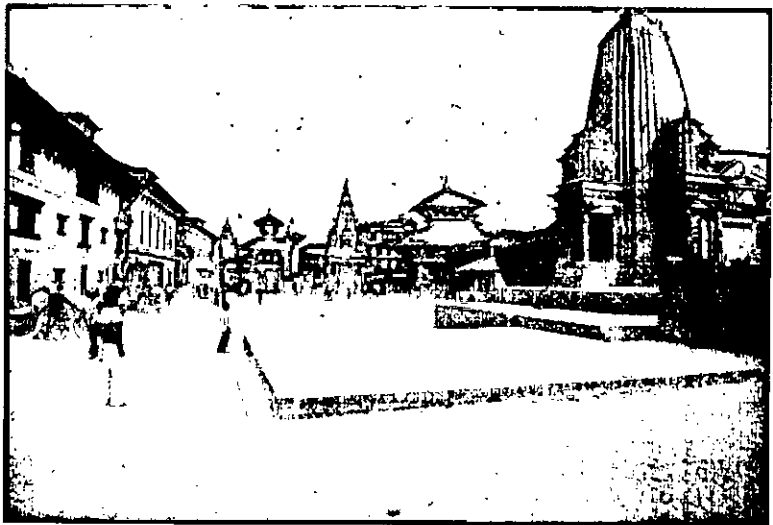


The old architecture of Nepal consists of basically brick structures with wooden doors and windows, lintels and roofs.



Fig.58, 59 : Brick construction, drip-courses moulded into special bricks, wooden windows, viewports at the top - most levels are the some of the characteristics of Nepalese architecture - all of which find a transformed representation in Kehn's work.

One visit to the 3 palaces, temple sites will show that the buildings are on one side with a vast space in front - audition, ceremonies event and meetings are a way of life.



The structures as said before are basically brick. The brick structures would have drip courses on the walls.

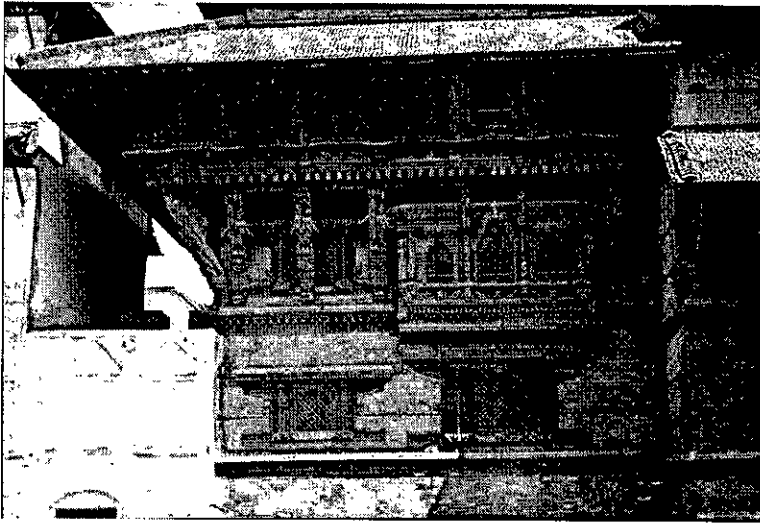


The drip courses will be on top of the opening to protect the wooden lintels and along the surface to protect the surface. They would be made of

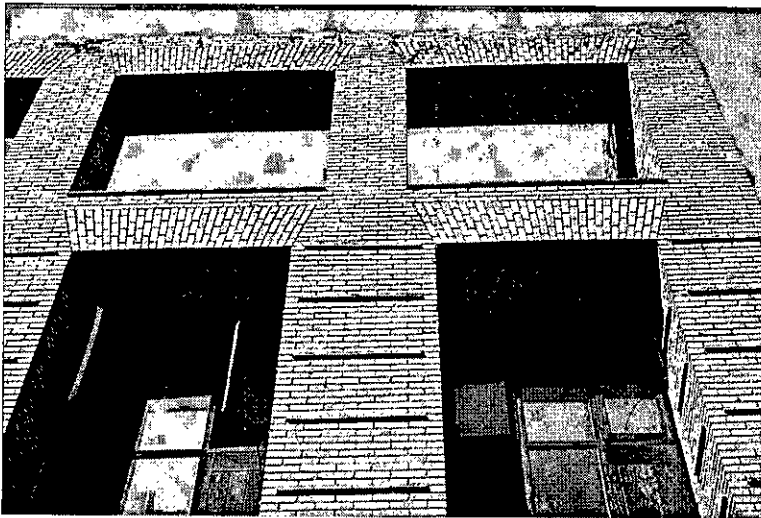
Fig. 60, 61 : The Courts of activities with the structures at the periphery, typical in the old administrative complexes.

The windows and doors were wooden absent of glazing, as the technology at that time was not available.

The structures not as a continuous whole, but independent and on the side with the places of events. (open air temple etc.) in the center on foreground. This is constant in Vaktapur and old Katmandu will show the same principle of building-brick, special drip course and wooden lintel frames and windows.



*Fig. 62: Brick, Brick Drip Course, Wooden Window Frames, View ports
Identifiable elements of Nepalese Architecture*



*Fig. 63: Brick, Brick Drip Course, Wooden Frames, View Ports, and
Transformed Representation in Kahn's work*

If we now take a look at Kahn's master plan we see the repeating of the scheme of the age old palace and temple complexes built towards the

edge- vast open areas

with public and common spaces in the center - becoming the 'center of availabilities'.

The building is made of brick. Special drip courses run across the building. The window frames of

wood. The termination into opening from which one looks outward into framed views same as in the building of the old complexes.

Again Kahn demonstrates his incredible power to oscillate between the particular and infinite in the same instance. He effortlessly incorporated historical

development, perception of space and way of life into an abstract timeless scheme beyond cliché and cultural overtones.

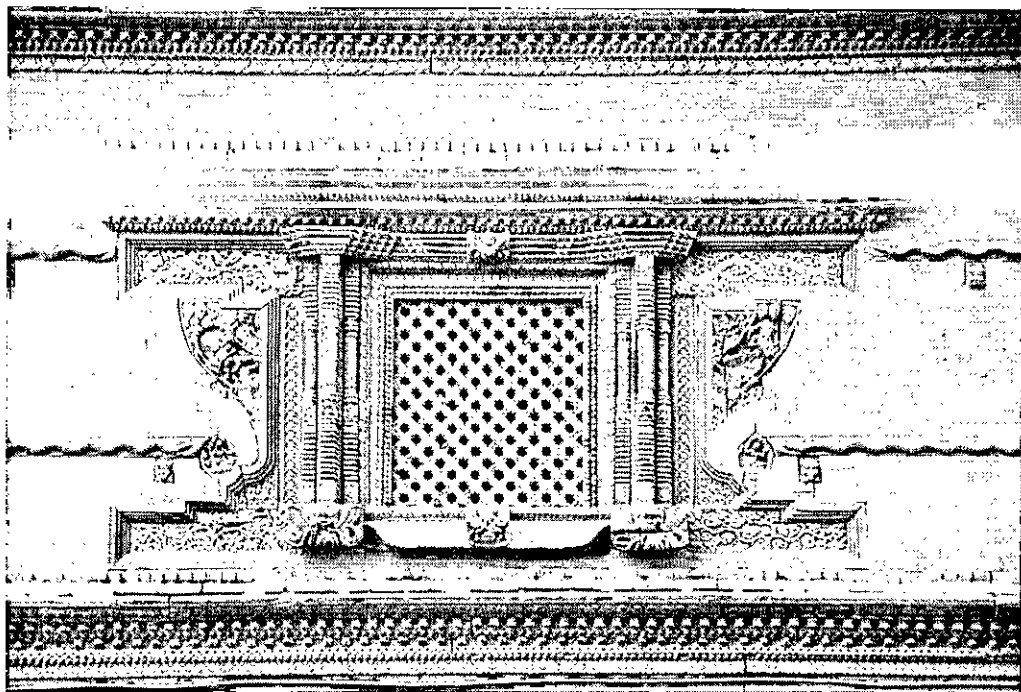


Fig. 64: The elements of ornamentation, typical to Nepalese architecture that found transformed representation in Kahn's work

Once again one is carried through the experience of knowing, feeling, understanding, and then propelled into the vastness of greater values of institutions of man.

CHAPTER 9

CASE STUDY:

NATIONAL CAPITAL—SHER-E-BANGLA NAGAR, DHAKA

In June 1959 the central govt. of East Pakistan decided to have two capitals, one for West Pakistan and one for East Pakistan. The executive

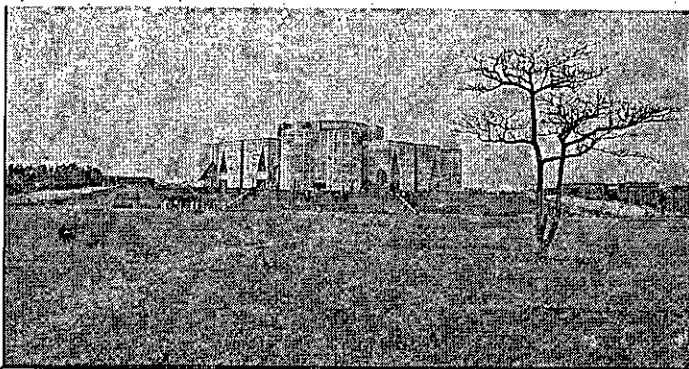


Fig. 65: Assembly Building - Sher - e - Bangla Nagar

capital was to be at Islamabad. The second capital, the legislative capital, in Dhaka. Kahn received the commission for the project in 1962 and continued working on it till his death in 1974.

The site comprised of 840 acres of farmland between Mirpur road and the military airport-it flat and subject to floods. (The site was increased at a later period). The project comprised of the assembly hostels for the govt. officials, Supreme Court, diplomatic enclave etc.

The context that Kahn was faced with was. The country - a delta of sunshine and rain. The site - flat, subject to flood.

The climate - hot and humid.

Religion - primarily Islam.

Culture- based on social and religious belief.

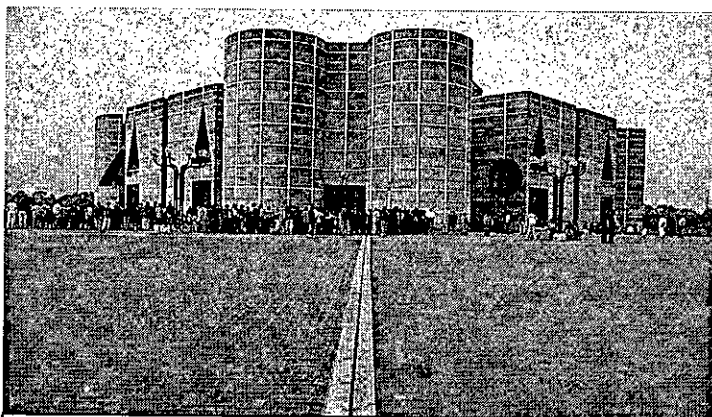


Fig. 66: Assembly Building - Sher - e - Bangla Nagar

Kahn made no mistake in this perception.

It was also a scope for Kahn to categorize his ideas on "assembly" and "assembly of man".

The spirituality of the people of then East Pakistan- helped Kahn in developing a scheme well beyond its physical manifestation.

These chapters will show how sensitive Kahn was to the physical and metaphysical context and how he worked with it to attain an ageless work of architecture.



Fig. 67

Again we will see the oscillation between the particular and the infinite, not one without the other.

Many authors have already described this work in detail. However instead of running the risk of being opinionated bringing into light Kahn's own words seem to be the right choice.

This chapter will contain mostly Kahn's own words on the project, as they will be the only valid sources in order to

understand his perception of context and its architectural manifestation.

The following extracts give us insight on Kahn early thoughts on the project - and its conceptual realization.

"I was given an extensive programs of buildings: the assembly; the supreme court; hostels; schools; a stadium; the diplomatic enclave; the living sector; market; all to be placed on a thousand acres of flat land subject to flood. I kept thinking of how these buildings may be grouped and what would cause them to take their place on the land. On the night of the third day, I feel out of bed with a

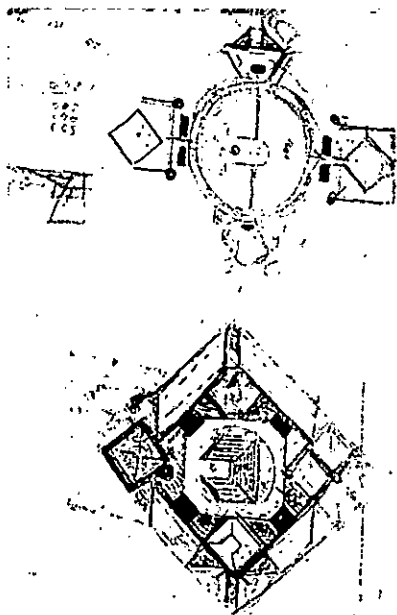


Fig. 68: Early sketches of Assembly

thought, which is still the prevailing idea of the plan. This came simply from the realization that assembly is of a transcendent nature. Men come to assemble to touch the spirit of community, and I felt that this must be expressible. Observing the way of religion in the life of the Pakistani, I thought that a mosque woven into the space fabric of the

assembly would reflect this feeling. It was presumptuous to right. How did I know that it would fit their way of life? But this assumption took possession.

Also, the program required the design of a hotel for ministers, their secretaries, and the members of the assembly. But this requirement became in my mind a corollary to the assembly and I thought immediately that it should be transformed from the connotations of a hotel to that of studies in a garden on lake. In my mind the Supreme Court was the test of the acts of legislation against the philosophic view of the nature of man. The three became inseparable in the thinking of the transcendent nature of assembly.

I couldn't wait until

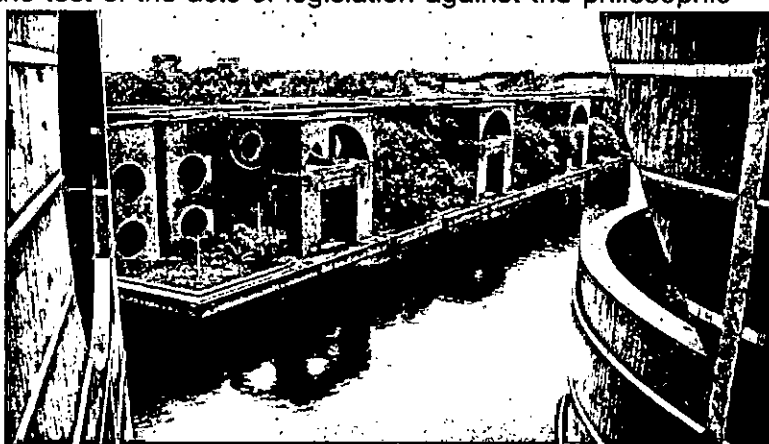


Fig. 69: The Ministers Hostels flanking the Assembly

morning in my anxiety to relate these thoughts to Kafiluddin Ahmad who is in charge of this project. In the morning I was there at 9 o'clock sharp and told him

about the symbolic importance of the mosque; I got no immediate response, no reaction. But he got on the phone and talked to several ministers. After he had spoken for some while, he turned to me and said, "Professor Kahn, I think you have something there." I felt enormous confidence that the plan could have

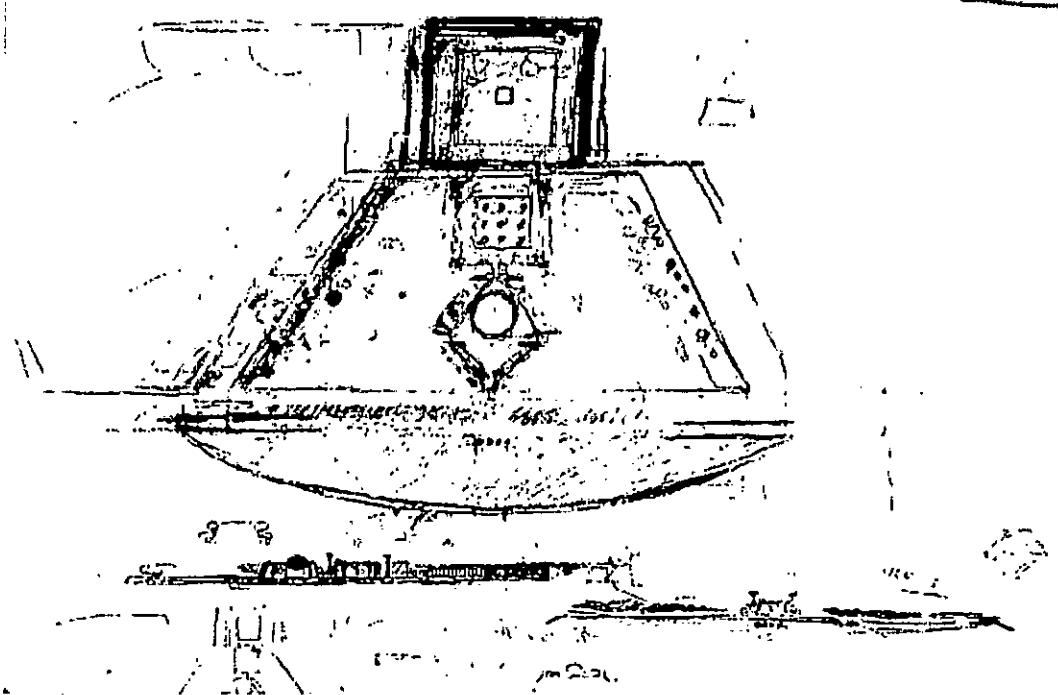


Fig. 70: Plan, section, and elevation sketches, 1962, showing the Citadel of the Assembly: crescent lake to the bottom; the supreme court to the top; the assembly and the mosque in the center; and the hostels to the left and right framing the lake.

form. "But," he said, " you will have a problem with the Chief Justice of the Supreme Court because he doesn't want the court next to the assembly."

We saw Chief Justice the next day and we were greeted with the usual tea and biscuits. He said: "I know why you're here—the grapevine is very well developed in Pakistan. You're barking up the wrong tree, because I will not be a part of this assembly group. I will go to the provincial capital site near the provincial high court where the lawyers are, and I think I will feel much more at home there." I turned to him and said, "Mr. Chief Justice, is this your decision alone or is it also the decision of the judges who will follow you? Let me explain to you what I intend to compose." And I made my first sketch on paper of the assembly with the

mosque on the lake. I added the hostels framing this lake. I told him how I felt about the transcendent meaning of assembly. After a moment's thought he took the pencil out of my hand and placed a mark representing the supreme court in a position where I would have placed it myself, on the other side of the mosque, and he said: "The mosque is sufficient insulation from the men of the assembly." [66]

Kahn in this project involved himself totally with the particularity of the prevailing situations - but was always transforming them into, ideological standpoints - and imparting to them - his own understanding of things - which resulted in a compound whole of context, national, social, religious values, Kahn's own theories, and statemental abstractness - that makes the project - timeless yet a monument of national identity. Kahn exercised this perception on issues - at their metaphysical level continuously as he search for expression in his masterplan.

"I was very happy that the motivations of religious thought were communicable. It was not belief, not design, not pattern, but the essence from which an institution could emerge which revealed the true receptivity of his mind." [67]

As we can see from these words of Kahn - the design had its inception not only in his ideas of assembly of man but the very particular - national, and their perceptions aspirations social and ideological views,.... that he was dealing with.

"The relationship of the assembly, mosque, Supreme Court and hostels in their interplay psychological is what expresses a nature. The Institution of Assembly could lose its strength if the sympathetic parts were dispersed. The inspirations of each would also be left incompletely expressed.

In the first sketch of the mosque I indicated four minarets. The meaning of mosque with assembly was then inseparable and a necessary image; and I used the most obvious and borrowed terms. Now the question of the nature 'Mosque' related to 'Assembly' has questioned the need for minarets. At one time in design the mosque was a pyramid, the peak of which was a minaret. Now it is the Mosque Entrance to the Assembly, but the question of its form for a long time remained."[68]

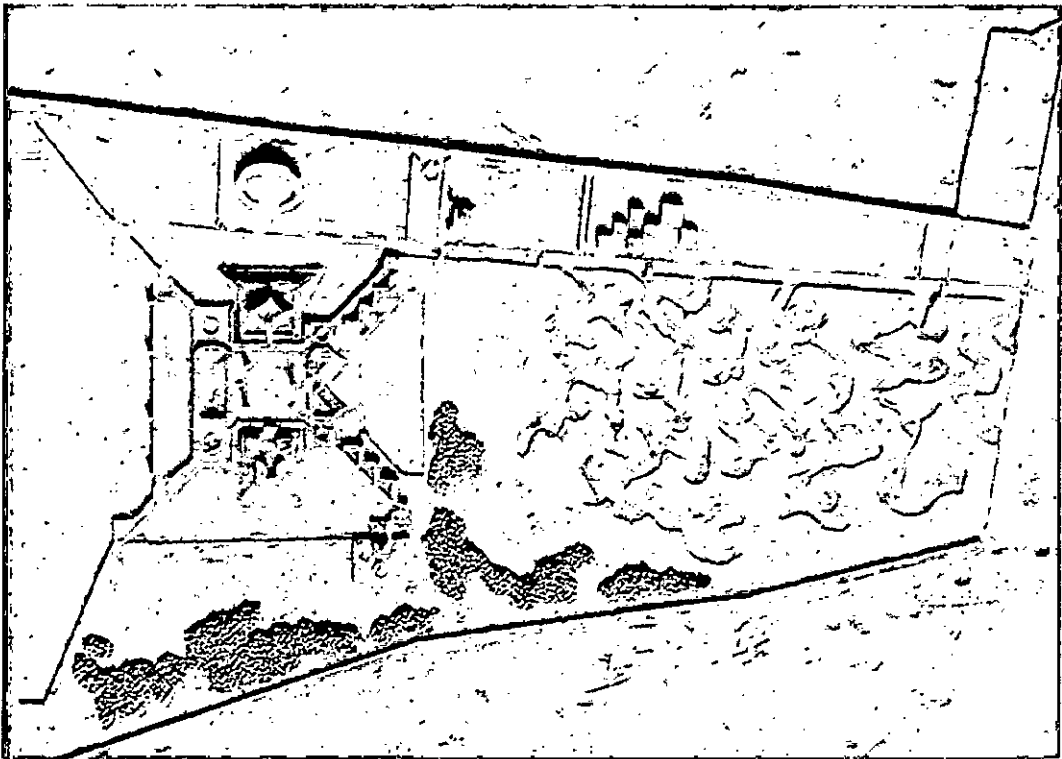


Fig. 71; Plan view of the model, first version, showing the Capital complex to the left; a series of irregular-shaped water basins to the right; the diplomatic enclave, a mosque, and a crescent-shaped arena to the top, between the air-field a straight canal running north-south and Mirpur Road to the bottom (west). The Capital complex is grouped around a large central square court and is surrounded by water basins.

The following drawings will show the gradual development of the Masterplan, which have to be related back to from the following text.

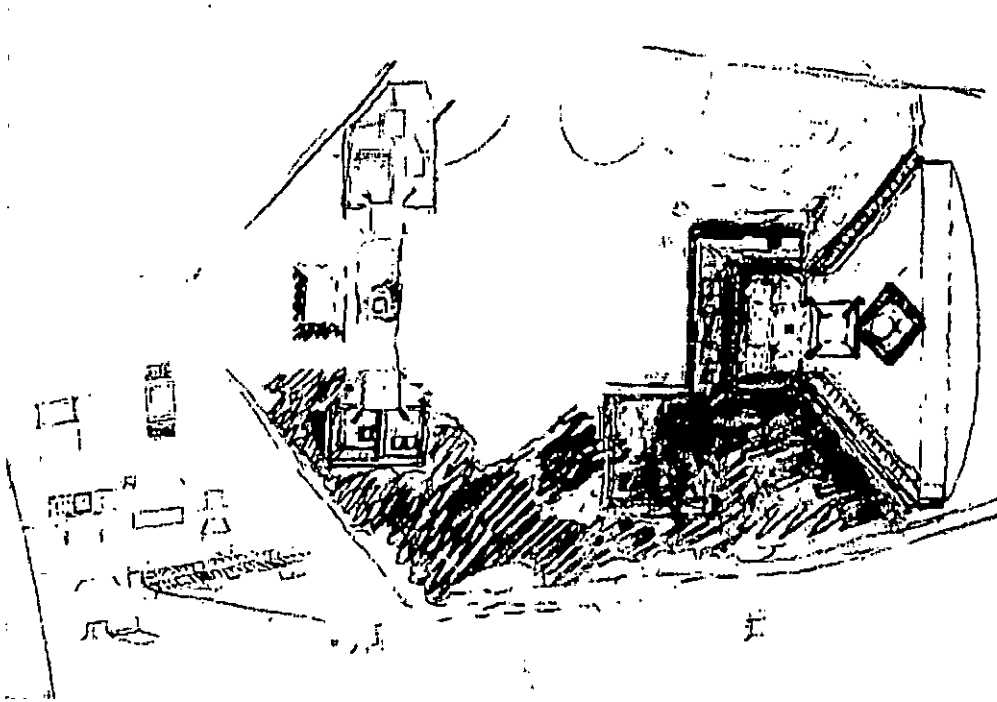


Fig. 72: Site plan sketch, showing the study of the park, club grounds, and play fields between the two Citadels.

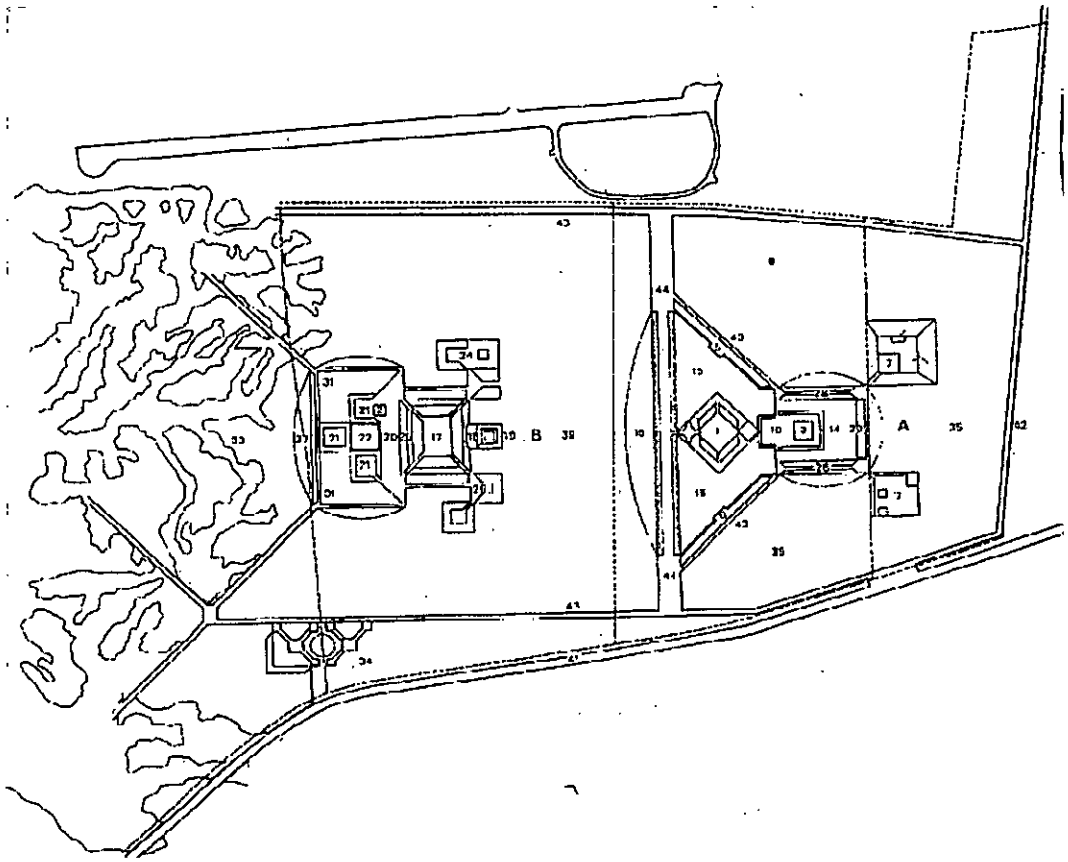


Fig. 73: Site plan, May 3, 1963

- | | | | |
|----|---|----|---|
| A | Citadel of Assembly | 19 | Arena |
| B | Citadel of institutions | 20 | Public square |
| 1 | National Assembly | 21 | Bazaar |
| 3 | Supreme Court | 22 | Market |
| 5 | Hostels for assembly members | 24 | School of arts |
| 6 | Hostels for ministers and secretaries | 25 | Exhibitions |
| 7 | Hostels of the Speaker and Chief Justice | 26 | School of sciences |
| 8 | Plot for staff housing | 28 | Central secretariat offices |
| 9 | President's house | 29 | Central government library |
| 10 | Forecourt | 34 | Hospitals |
| 14 | Court | 35 | Park |
| 15 | Lake | 42 | New road |
| 17 | Center for athletics and physical culture | 43 | Inner road |
| 18 | Water sport | 44 | Lower vehicular entrance, under promenade |

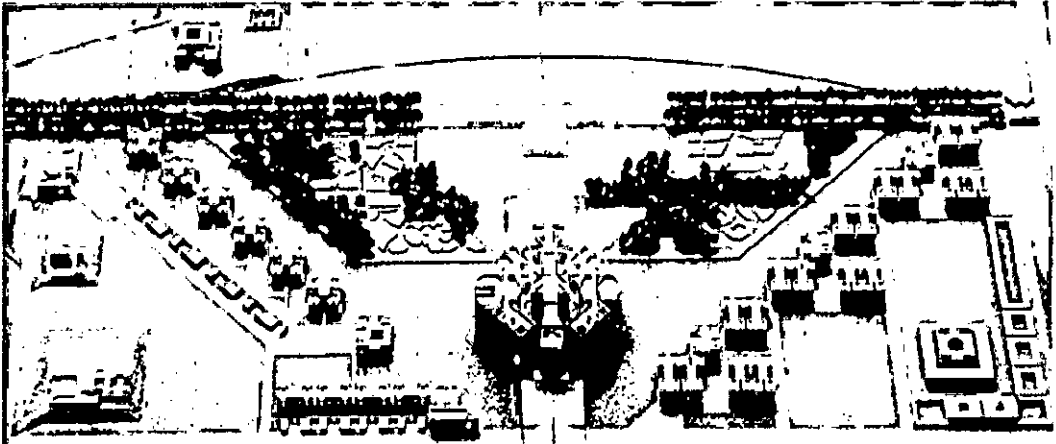


Fig. 74: View of site model from the south entrance road, showing ceremonial promenade to the top; Assembly on the central axis; hostels for the ministers, secretaries and their dining hall to the left; hostels for the assembly members and their dining halls to the right; houses for the Chief Justice, Speaker and Secretaries to the far left; servant quarters, common kitchen and parking garages for members of the assembly to the right corner, and President's square to the top left on the edge of the crescent lake.

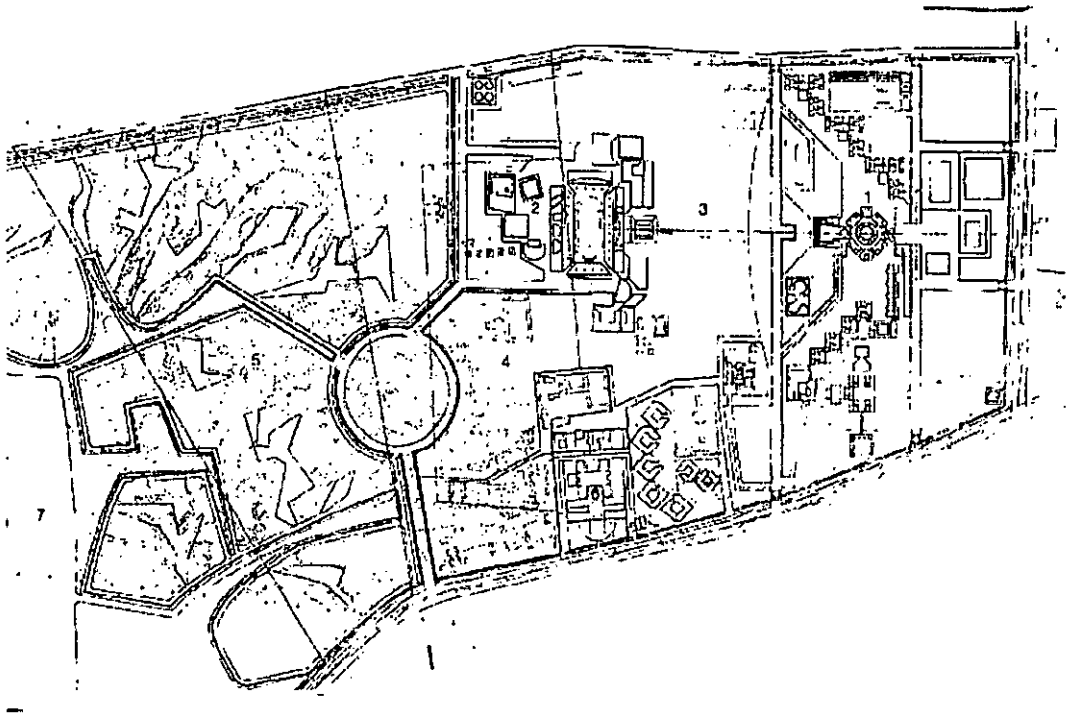


Fig. 75: Site plan, May 1964, showing development of the residential estate to the north of the Citadel of Institutions, beyond the limits of the original site.

- 1 Citadel of Assembly
- 2 Citadel of Institutions
- 3 Park and club grounds
- 4 Institutional Estate
- 5 Residential Estate
- 6 Ayub Hospital Center
- 7 Reservoir (connected to all the lakes of the Citadel of Assembly)

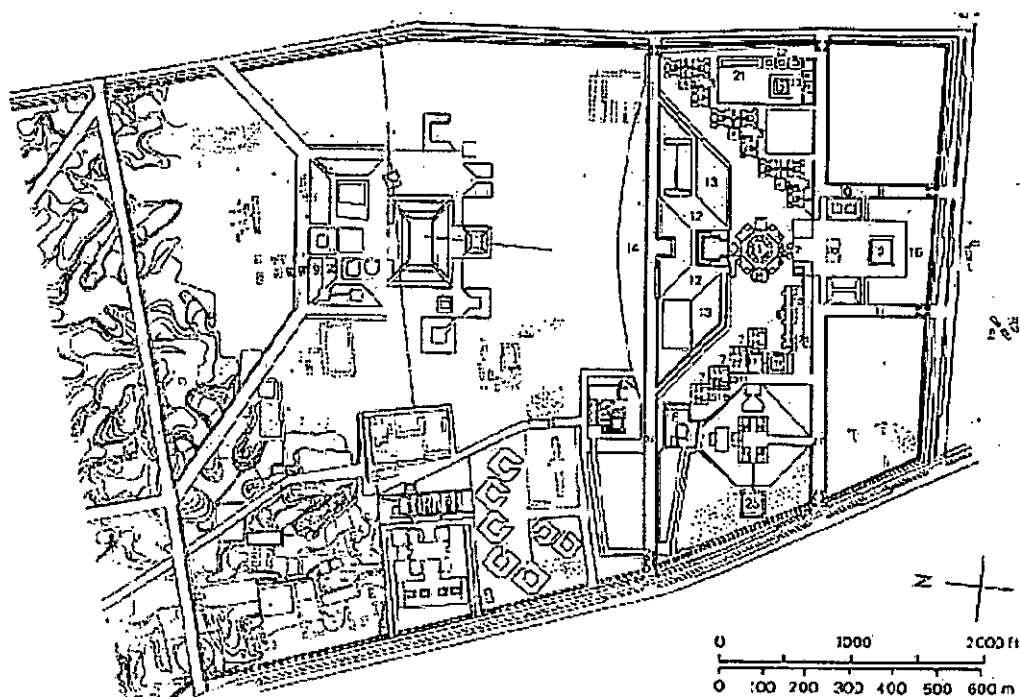


Fig. 76: Site plan, May 10, 1964, (revised: July 6, 1964)

1	National Assembly	15	Waterway
2	Prayer hall	16	Aeration lake
3	Hostels for members of National Assembly	17	Dining room, lounges, and kitchen for ministers, secretaries, and judges
4	Dining room, lounge, and kitchen for members of National Assembly	18	Additional offices for ministers
5	Committee room and party rooms	19	Parking garages
6	Hostels for ministers	20	Mechanical plant
7	Hostels for secretaries	21	Garages for members of National Assembly
8	Hostel for Judges	22	Servant quarters for members of National Assembly
9	Supreme Court	23	Common kitchen and services
10	Central Government secretariat and library	24	Garages and private kitchen for ministers
11	Approach roads	25	Servant quarters for ministers and judges
12	Lower ceremonial plaza	26	Approach promenade
13	Gardens	27	Interior entrance road
14	Lake	28	Control gate house

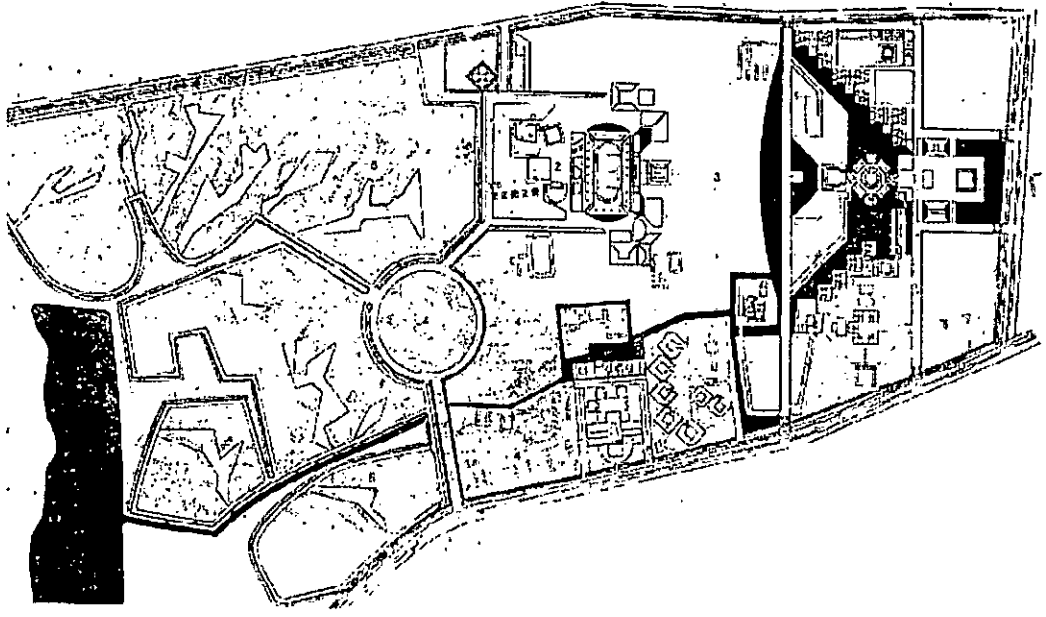


Fig. 77: Site plan, August, 1964, with the water system marked in black, showing a water reservoirs to the left connected to the lakes of the Citadel of Assembly by a canal.

- 1 Citadel of Assembly
- 2 Citadel of Institutions
- 3 Public park
- 4 Institutional estate
- 5 Residential estate
- 6 Ayub Central Hospital

Kahn was always sensitive to the natural way of building in a place. He was well aware of the way of building at Dhaka and his understanding of the matter and its manifestation in the masterplan is obvious in all the developments. In Kahn's words -

"Because this is delta country buildings are placed on mounds to protect them from flood. The ground for the mounds comes from the digging of lakes and ponds. I employed the shape of the lake, too, as a discipline of location and boundary. The triangular lake was meant to encompass the hostels and the assembly and to act as a dimensional control." [69]

Kahn's thoughts on Citadel Assembly and institutional played significant expression on the project both in detail and masterplan and the sequence of thoughts and well recorded in his own words -

"The assembly, hostels, and Supreme Court belong to the Citadel of the Assembly and their interrelated nature suggest a completeness causing other buildings to take their distance. Whether I've even arrived at the proper expression of assembly or not I don't know, but I've also said this: the acts of assembly are the makings of the intellectual institutions of man. That made me realize that the buildings of the program other than those related to the Assembly belong to the Citadel of the institutions, which I place on axis and facing the Citadel of the Assembly.

It occurred to me in the thinking about the meaning of institutions that the prime institution stems from the inspiration to live which has remained meekly expressed in the institutions of man. It is an inspiration for building I hope to sense, the form of which could lead to new explosions of programs and designs expressing the beauty of physical well being. It would be a place of baths, exercise and meeting. It is the place where the athlete is honored and a man strives for physical perfection. I have in mind an environment of spaces far reaching in richness and delight. The responsibility of a country to its people in regard to their physical well being is certainly as important as the culture of the mind and the regulation of commerce. This institution of physical well-being is suggested as a building position harboring a stadium, the body of which will contain the rooms of meeting, baths, exercise and their gardens, and flanked by a school of science and a school of art. Also composed with these buildings is a block of satellite institutions and commercial services. This block is the anchor of

the dwelling places, which is being recomposed out of an old village with its mounds and depressions already established. I spoke to Mr. Steen Eiler Rasmussen about the deliberate separation of the two citadels and he has inspired me to look into this decision and sense whether the two can be brought together and have a greater meaning than the meaning of looking across the separating park at each other. I felt that their being separate was good, living on different planes of inspiration. But Mr. Rasmussen knows the beginnings of towns in their essence so beautifully that I feel that this plan needs a thorough review before I can feel confident about the belief which is in black of it.

What I'm trying to do is establish a belief out of a philosophy I can turn over to Pakistan, so that whatever they do is always answerable to it. I feel as though this plan which was made weeks after I saw the program has strength. Does it have all the ingredients? If only one is lacking it will disintegrate. This is my problem. Mr. Rasmussen described it to me with little sketches conveying the life and the beauty of the bazaar, which limited by dimensions, expresses so beautifully the power of architecture which could give self-containment to an inspired way of life. It becomes the making of a world within a world. In the same way, in this thousand-acre reservation, one should feel its particular character in all the parts."^[70]

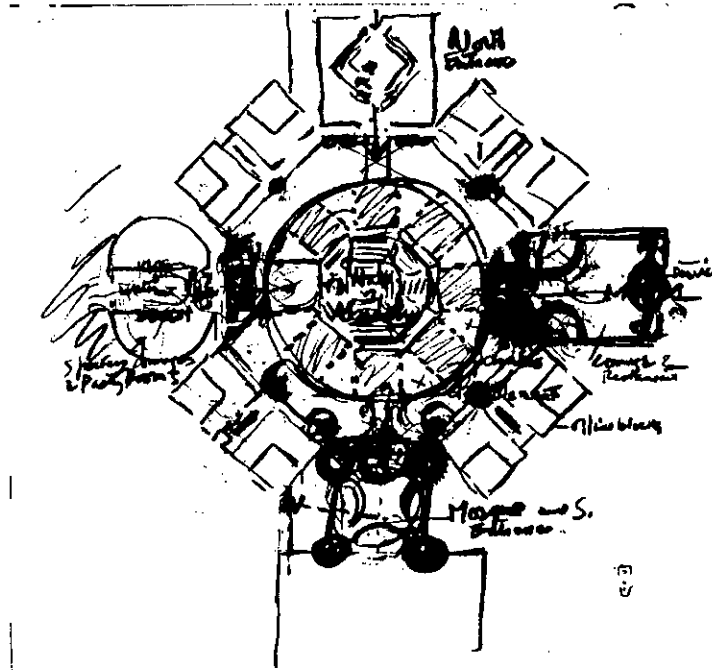
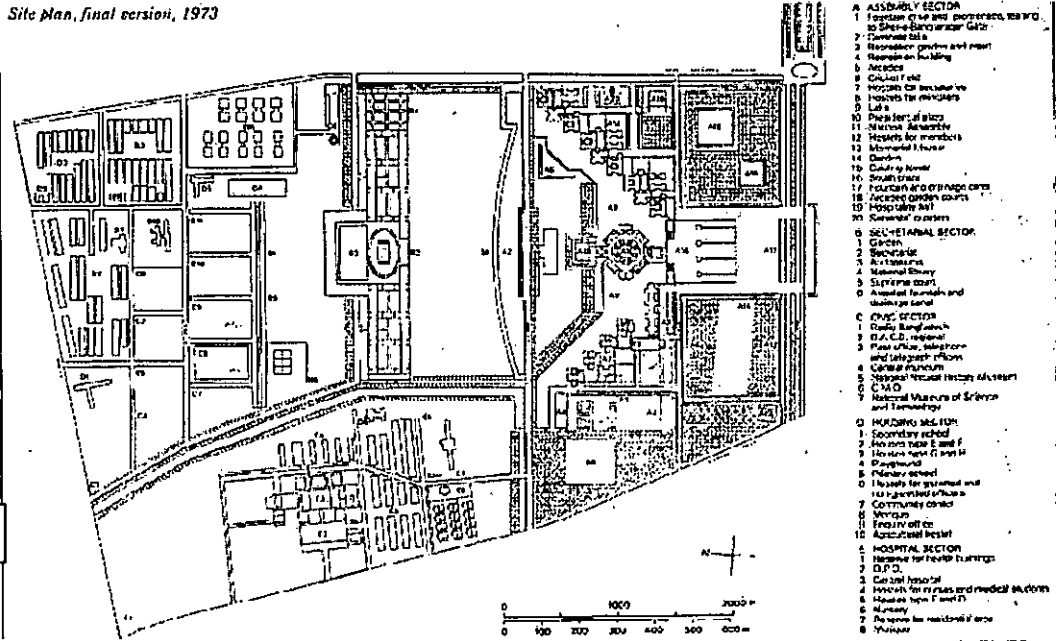
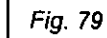


Fig. 78: Plan sketches, showing studies of the central and peripheral zones: "North Entrance" to the left; "Mosque and South Entrance" to the right; "Services, Lounge and restaurant" at the top; "Speaker's Lounges and party rooms" at the bottom; and four "office blocks" completing the outer zones. "Hall of Assembly" in the central zone showing eight light courts and galleries between.

As we can see even as Kahn was working with strong philosophical standpoints he was always incorporating all the aspects of the relevant context and attempting to find an answer - in answerability. This is truly remarkable as he was harping on all that was particular yet attaining a placeless, ageless profoundness.

Site plan, final version, 1973



The following extracts bring out more evidence to Kahn's sensitivity on understanding of the axiom context of - place, culture, religion etc.

On the masterplan Kahn further comments,

"The master plan is conceived as a clearly defined reservation within the city of Dhaka, encompassing the Government building in a setting of gardens, waterways and fountains, interconnected with roads and walks. The basis of the plan is a major north-south axis. On the one end of this axis is the Citadel of Assembly and on the other, the Citadel of institutions, separated by an area of land designed as the Public Park. Other land areas are devoted to housing, gardens, and the social needs of men and their families. A portion of land will be reserved for higher residential buildings, including residences and offices for consulates. The physical conditions of this region, and particularly of the site, demand that a positive design attitude be developed toward the elements of sun, wind, weather, rain, and floods. Traditionally, areas are excavated for lakes and drainage, thereby obtaining fill to raise roads and buildings above flood levels."

On the note of the mosque Kahn further comments

Observing the way of religion in the life of Pakistani, I thought that a mosque woven into the space fabric this feeling. It was presumptuous to assume this right. How did I know that it would fit their way of life? But this assumption took possessions as an anchor." [72]

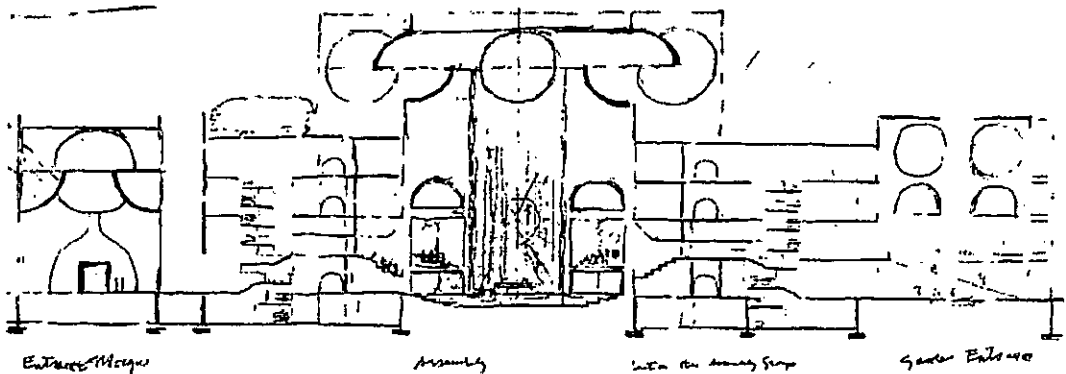


Fig.80: Longitudinal north-south section sketch, facing west. The section showing "Entrance Mosque", "Assembly", "Section through Assembly Group", "Garden Entrance", "Light that turns the corner as a friend. Openings circular in glare walls/ walls to go through are square.

On the metaphysical premise on the complex Kahn states

"In us

Inspiration to express

Inspiration to question

Inspiration to learn

Inspiration to live

These bring to man his institutions.

"The architect is the maker of their spaces.

"The mind, in body, the arts bring to light these inspirations.

"The mind, brain and psyche, sensor of the universe and of eternity in joy of wonder with the question 'why anything?'

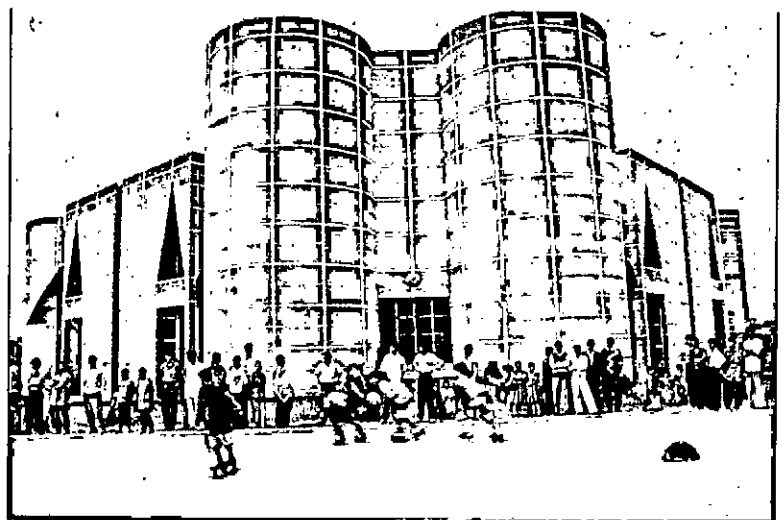


Fig. 81: The "Entrance Mosque"

“The body is life; none without the psyche. Its beauty: grace and strength should be coveted and honored by the man and by society. Art is the language of the spirit. To create is the sense realization of the psyche and obedience to the laws of nature.” [73]

Let us now move onto cross-examines the work and Kahn's words.

As we can see he was well aware of the delta statues of the country. He observed how traditionally the buildings were made on molds to raise them over flood level. The same appearance was given to the assembly building. How he

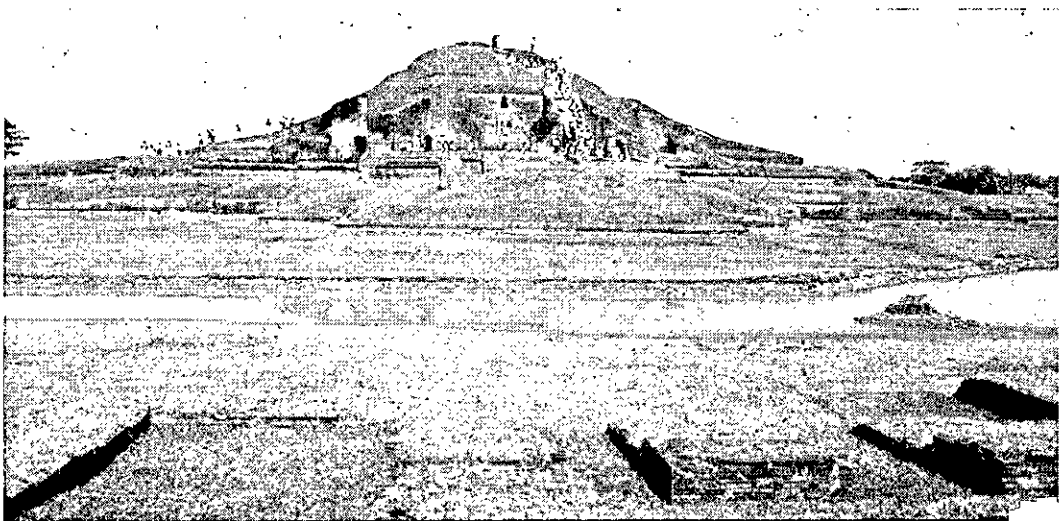


Fig. 82: Central temple at Paharpur with ambulatory and surrounding cells

arranges the MP hostels around the assembly is very interesting. One cannot avoid the link between the earliest of monuments of Bengal — the Paharpur, and Mainamati, Buddhist monasteries.

It is known that Kahn was very much aware of the Buddhist monuments of Mainamati and Paharpur. One can find stairs of their influence in his work at Sher-e-Banla Nagar. As we know Paharpur is organized as a temple in the center and the cells around it.

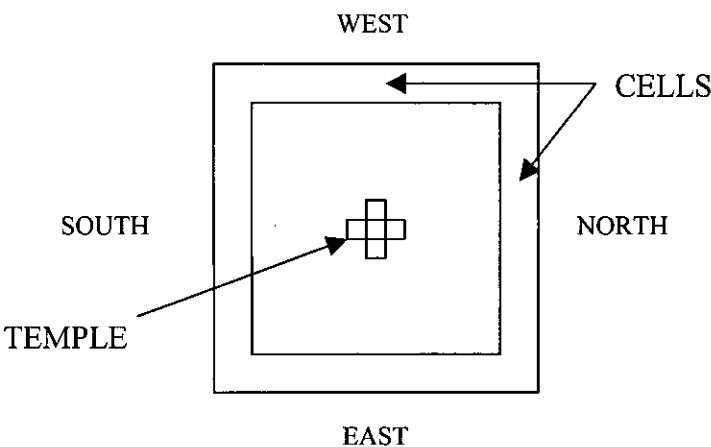
This creates a wonderful spiritual relationship between the two. Even when one is in the cell the temple always stays in focus confirming purpose and the spiritual gravity of the scheme.

This has allowed two diverse functions to be placed not only close to each other but also to act as a reciprocal to each other.

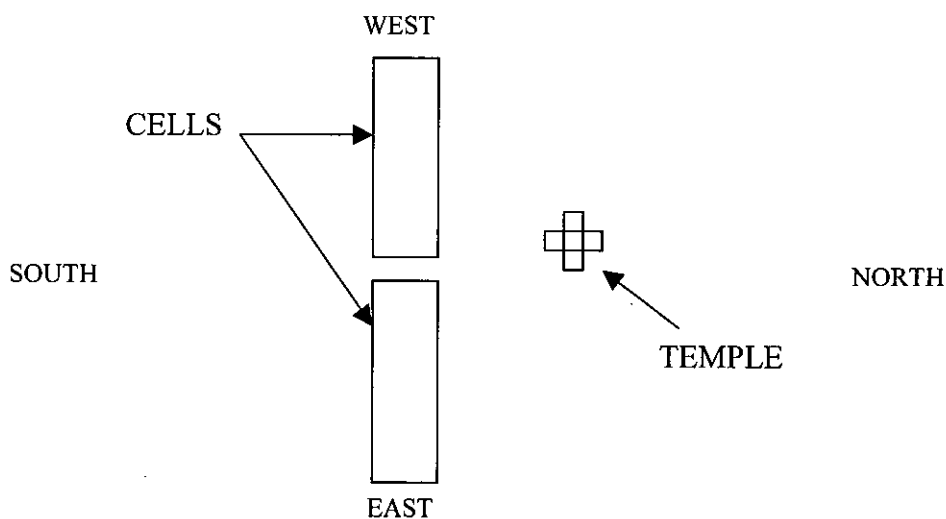
This scheme has obviously been picked up by Kahn in this assembly complex. He has used the central assembly building as the focus and the MP hostels and ministers residences as the reciprocal -one enriches the scheme - metaphysically and imports a spiritual holistic — philosophical value to the total order.

NO such strong complementary relationship has been created in the 1st capital in Islamabad. Its introduction in the complex have thus seems deprived and international.

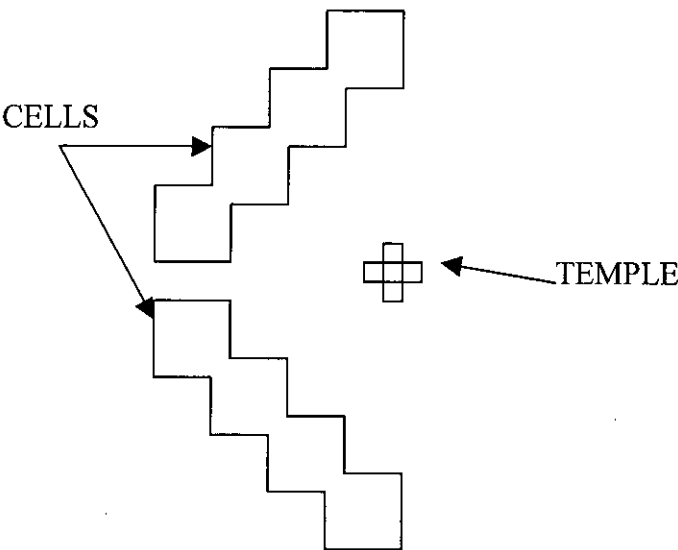
If we also consider the morphological arrangement at the Paharpur we will see the following



If we do a climatical correction to the scheme,



Now if we do another correction in order to make the cells and the temple reciprocal to each other we will see



This similarity of the scheme of that of the assembly is truly astonishing.

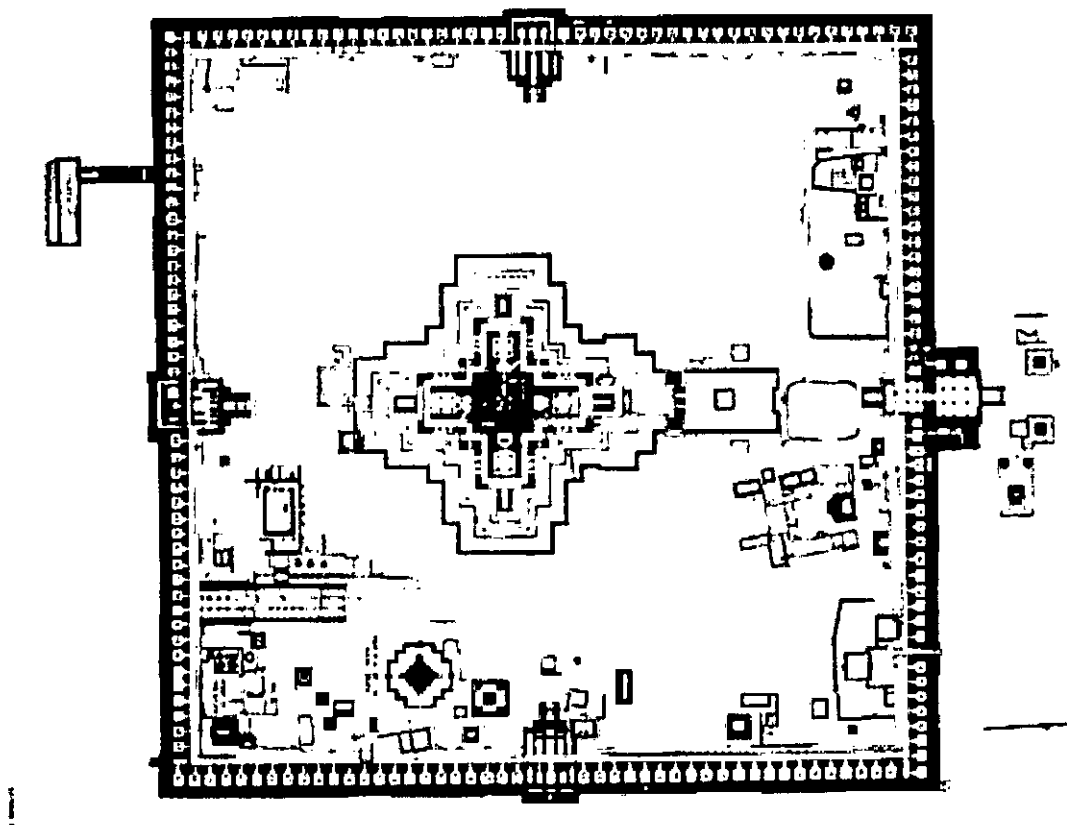


Fig.83: Plan of Buddhist monastery at Paharpur.

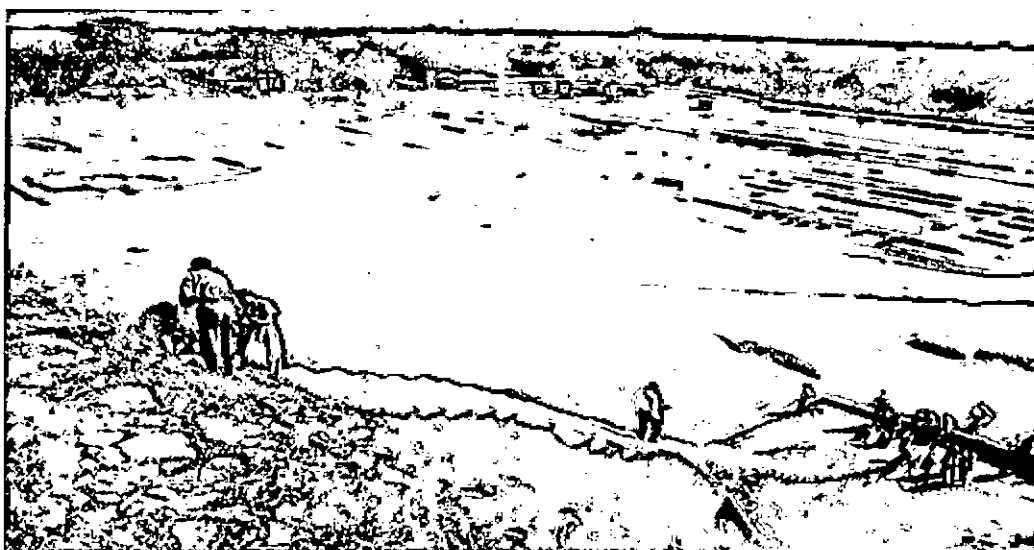


Fig.84: The surrounding cells and other functions at Paharpur.

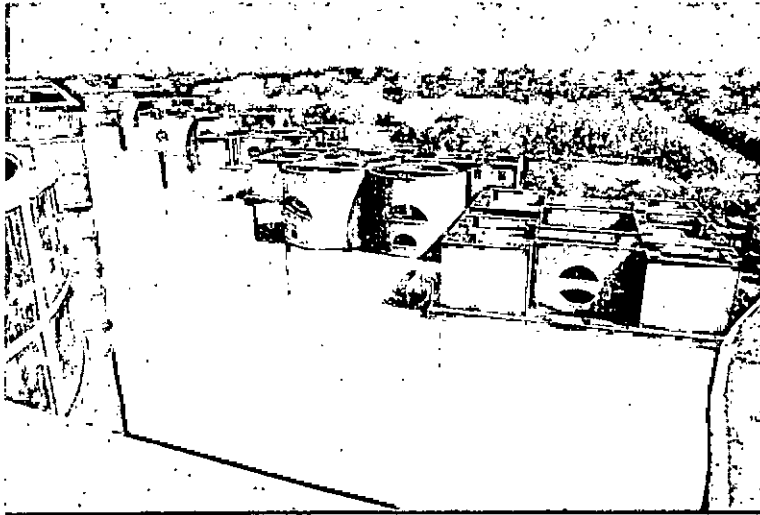


Fig.85: MP hostels flanking the National Assembly building

This effortless transition of formal "being" beyond time and style is one of Kahn's greatest achievements in his works.

The central form he says

"Architecture of the Capital."

"The architectural image of the assembly building grows out of the conception to

hold a strong essential form to give particular shape to the varying interior needs, expressing them on the exterior. The image is that of a many-faceted precious stone, constructed in concrete and marble." [74]

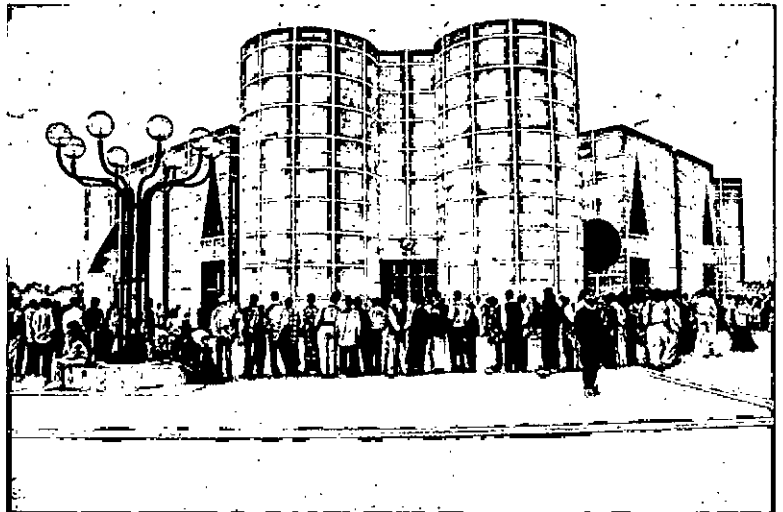


Fig. 86: The "Presence" of the form almost demands attention

This arrangement also served the purpose of arranging the different function into a formal platoncity.

Another important aspect of this project is its monumentality. Monumentality is an important aspect of Kahn's philosophy and work. This has been highlighted in his work here. The presence of the parliament building is astounding. However the

monumentality of the building imparts a different feeling to the people of Bangladesh.

It is a monument dedicated to democracy and perceives as such. It does not have the feudalistic attitude of western monuments. Neither does it have the appearance of colonial dictatorship.

The people of this region look back onto its Monarchs as benevolent, and their monuments as the seat of power and center of order. One can feel the same feelings of pride and faith being imparted to the assembly building. Thus its monumentality touch upon greater values than — just a monumental building.

Kahn's "Monument" thus transcends its size and encompasses an enigmatic quality become a point of reference to the people in the light of hope, aspirations, and the essence of democracy.

Kahn's understanding of the Mosque is quite interesting as he needed to address the prevailing religion and yet transform its presence beyond it into higher values to give the scheme its timeless abstractness.

He was able to identify the hope and aspiration and even cultural and religious biasness - and was able to deliver the outcome without subjecting it to elemental cliché or intellectual corruption.

His conviction of naturalness of place and its people led him on to find a clear concept both to strong architectural idealism and sensitive appreciation of context.

Religion played a vital role in the scheme and the conceptual inception of the masterplan and assembly.

The following extracts will show how Kahn perceived the prevailing situations, put them into context and carefully wove them into a meaningful architectural whole.

Many authors have commented on this matter, here Kahn's words have been selected to bear testimony to the development.

Khan writes

"Government officials had stipulated "that the architecture be given an Islamic touch,"⁴⁸ and this accounts in part for both the dome and the plan; Kahn had written, "The insistence of the Islamic touch is plaguing.... But in spite of this, it can stimulated resources not called on before." [75]

These 'resources' gradually found greater value for the Mosque and its place in "assembly".

In the legislative Chamber, they wanted a room of prayer that was three thousand feet square, with a closet for rugs. They didn't have a sense of a room for prayer. They judged that not all members of the assembly would go there, only some who feel like it, like people who cross themselves before they go to bat.

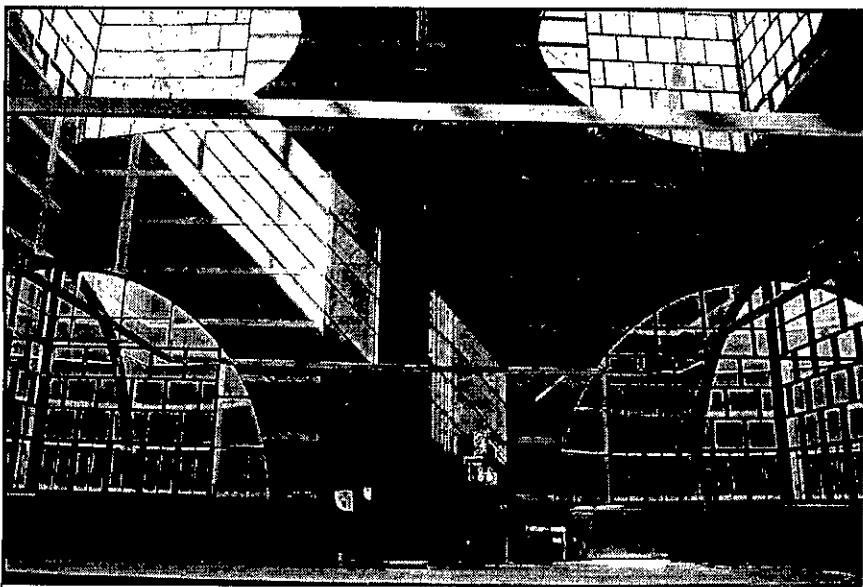


Fig. 87: The Mosque

I presented the idea that this closet space for rugs and the space of three thousand feet should be

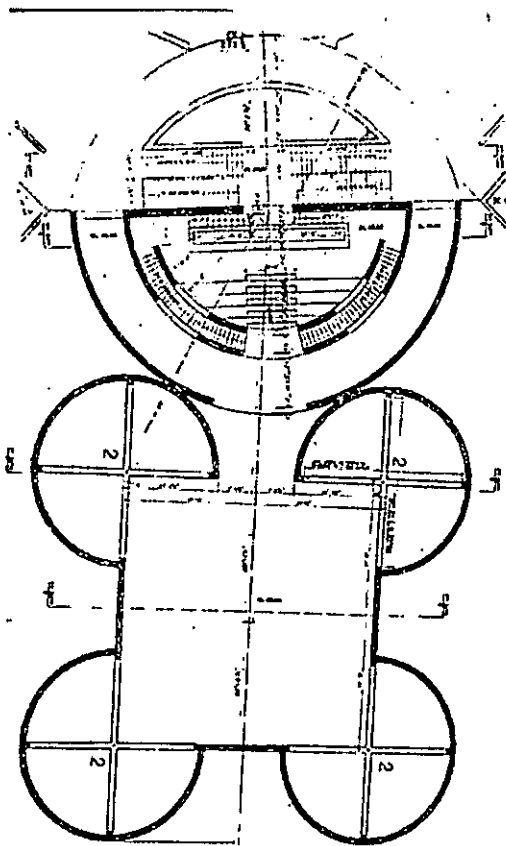


Fig.88: Plan at 48 feet level, showing south entrance to the right.
1 South entrance hall
2 Court of ablutions

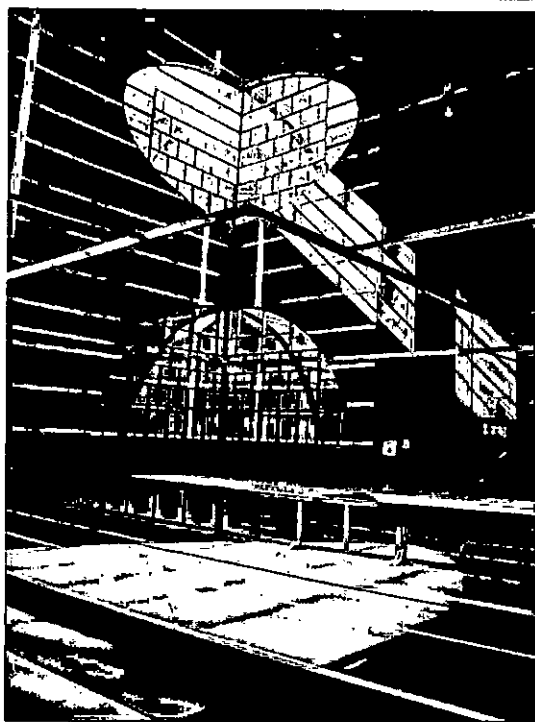


Fig.89: Cylindrical Lightwells provide indirect light within the Mosque. ———The necessary isolation and ambiance is thus achieved

infinitely bigger. I had an outlandish figure of thirty thousand square feet, which I immediately changed. The point I wanted to convey was that it should be a full blown mosque and that it should be over an entrance, so that the mosque would talk to the Assembly, and the Assembly would talk to the mosque. I knew that the orientation to of the chamber was characteristic of such a place, which

had to face exactly towards Mecca. And I knew from what I'd seen how deliberately the town turns not to Mecca, that I felt the Assembly should also turn from this. To place this properly as an adjustment to an interior space didn't please me. I thought this should be more nobly expressed. I was working with them out of the very ways in which they could evaluate things." [76]

Kahn's respect for the people that this assembly would serve their way of life and their value of things is exemplified

beyond doubt in his work. It is homage to place, people, and the beliefs and aspirations are highest- yet his architecture remains free for the pitfall of "elements," style and cliché- reach into the realm of profound inspiration and timelessness.

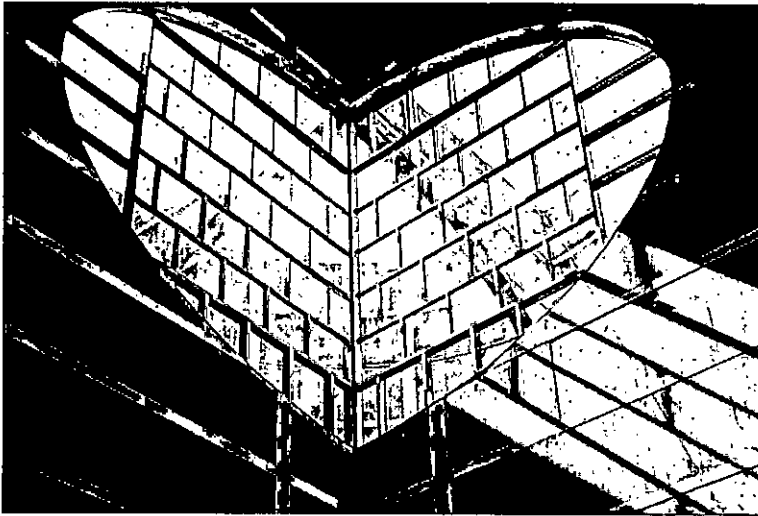


Fig. 90: The light through the light-wells resound with spiritual quality

As Alexandra Tyng writes,

"Kahn first thought of the traditional mosque symbolism of four minarets.

Later he considered

ayer hall finally evolved

into a central space cornered by four hollow columns. Rather than copy obvious traditional motifs, Kahn chose to dig deeper and find the basic form essence of the Religious Place. The resulting design is not a copy of any other historical building or style. Kahn found his own pure expression of the form Mosque, the same form that also prompted the design of other religion sanctuaries in different cultures and times." [77]

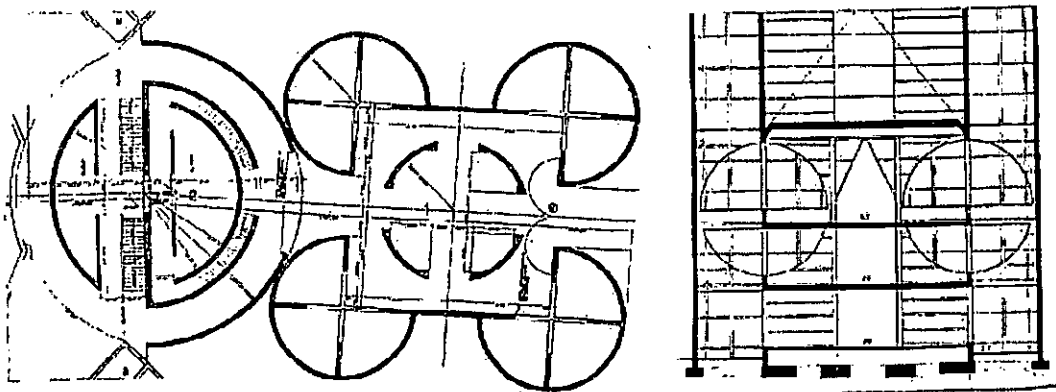


Fig.91: Plan at 68 feet level, showing stairwell as connection between the assembly hall and the prayer hall.

- 1 Prayer hall
- 2 Open light shafts

Section, facing north, showing light shafts; prayer hall (at 68 feet level); and south entrance hall (at 48 feet level).

The horizontal double lines, five feet apart, representing casting joints of the reinforced concrete walls.

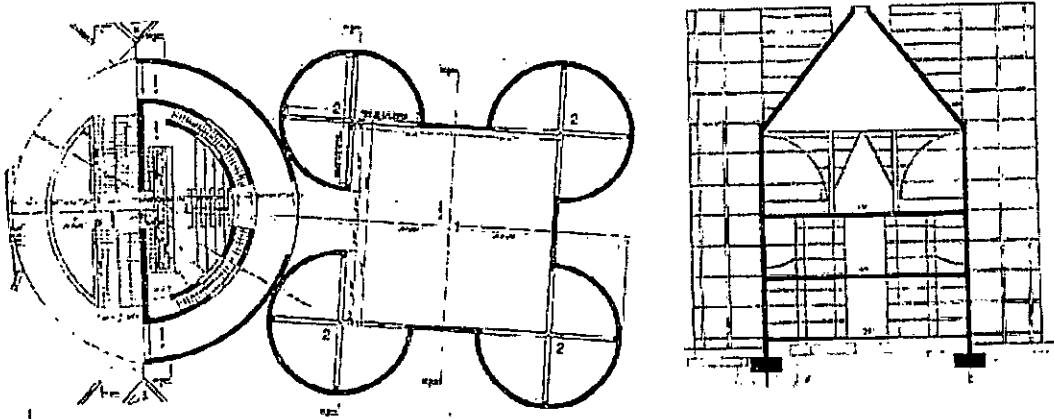


Fig.92: Plan at 48 feet level, showing south entrance to the right.

- 1 South entrance hall
- 2 Court of ablutions

Section, facing north, showing the center of the prayer hall with top light and pyramid roof.

Inside the assembly building is a street like ambulatory around the central chamber. The 'street' is an integral part of the 'city'.

And the absence of formality of the street is a way of life of the people of then East Pakistan. The absence of formality of piazzas, foyer, prayer hall, marks the difference of the nature of the places that are developed in this part of the world- the nature of street on the other hand generate from a deeper meaning.

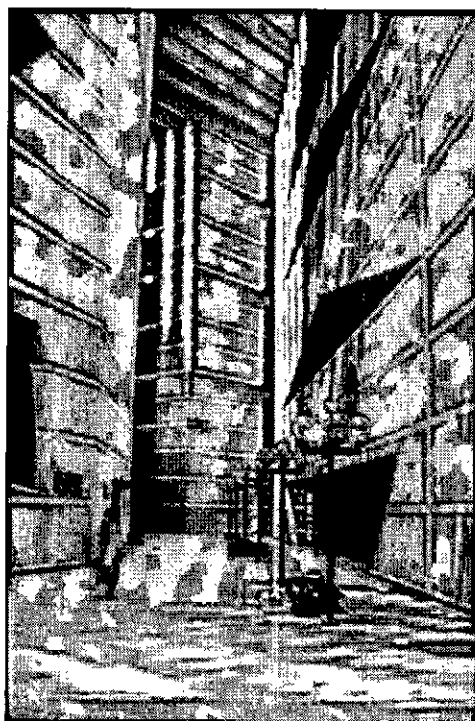
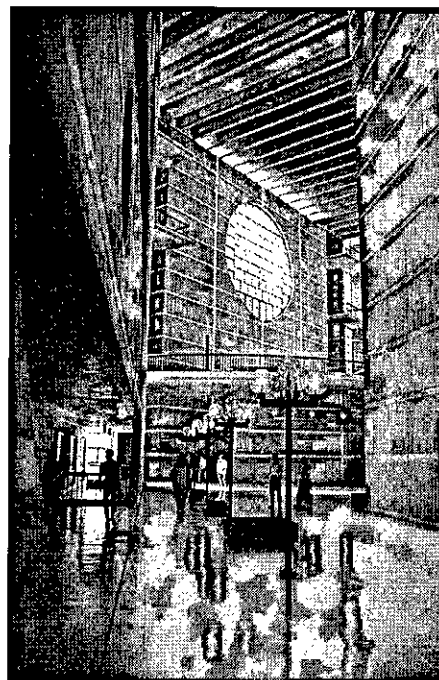


Fig.93, 94 : The ambulatory space filled with indirect light and with the ambiance and scale of a street held by function on both sides.

The shades and shadows, the climates, the meetings, the passing through of the street and the coming to it is the way of life here.

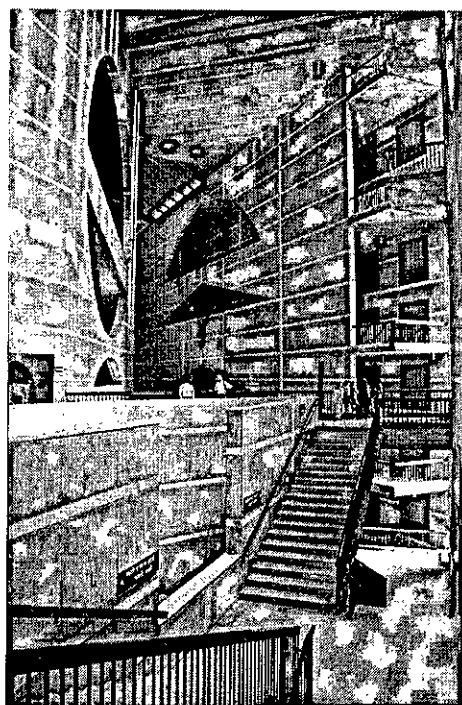


Fig. 95: The junction point of the mosque with the rest from the interior, the scale and play of light contribute to the streetlike quality of the interior

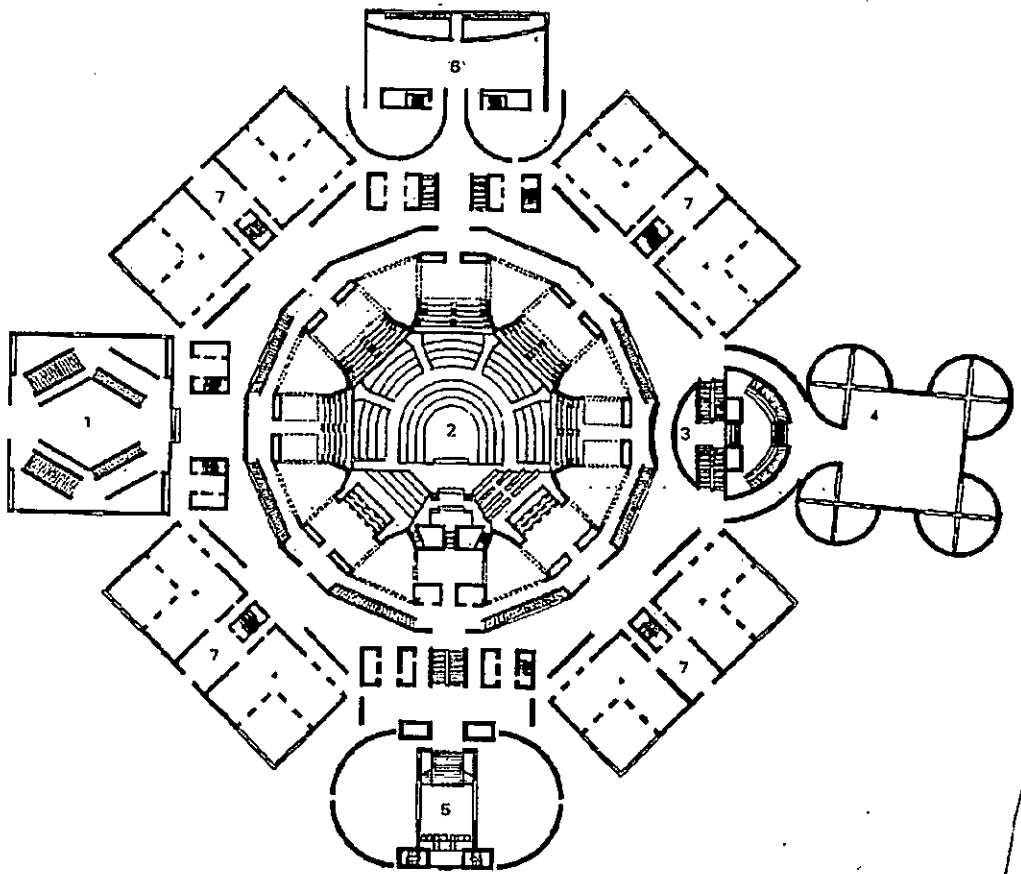


Fig.96: Plan at 68 feet level

- | | |
|------------------------|----------------------------|
| 1 Garden entrance hall | 5 Minister's lounge |
| 2 Assembly hall | 6 Cafeteria and recreation |
| 3 Court of ablution | 7 Offices |
| 4 Prayer hall | |

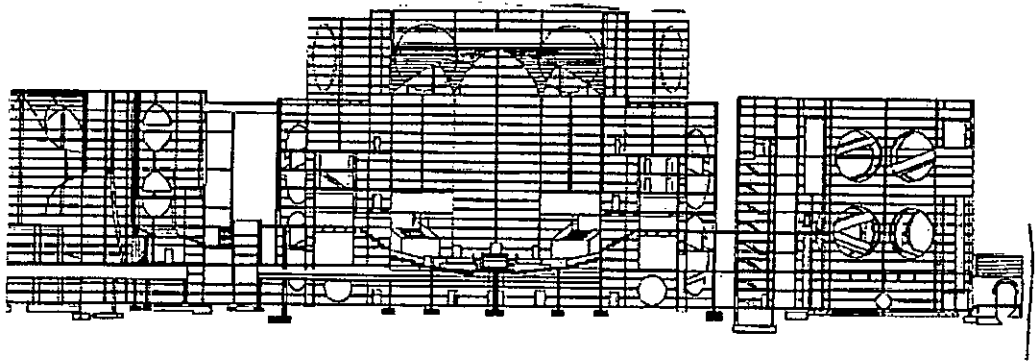


Fig.97: Longitudinal section facing west. Showing the prayer hall to the left; the garden entrance hall to the right; and the assembly chamber in the center.

As one writer says

“Within the assembly building itself, an ambulatory of grandly sublime scale further amplified the assembly’s elevated purpose while providing a less formal space for related activity (fig. 128). To bring natural light to the interiors of the vast structure, Kahn developed “hollow columns”—something akin to light wells, but in his mind having greater architectural purpose.” [78]

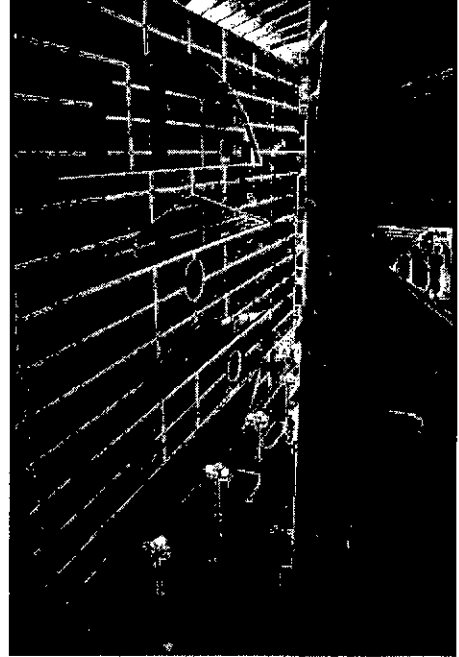
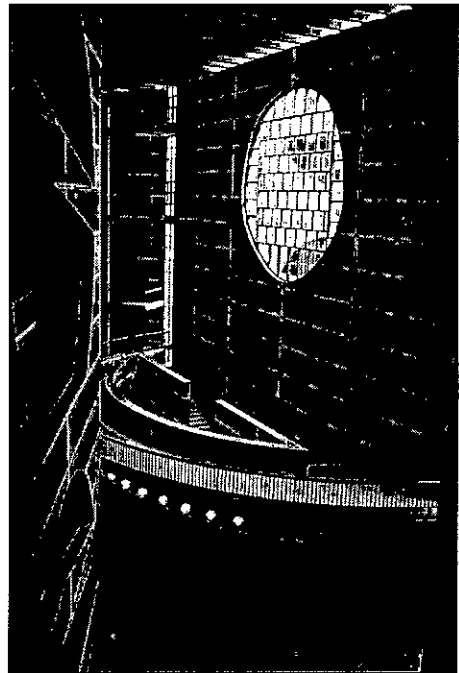


Fig. 98, 99 : Scaleless, timeless, spaces orchestrated with light makes the project transcendent in nature.



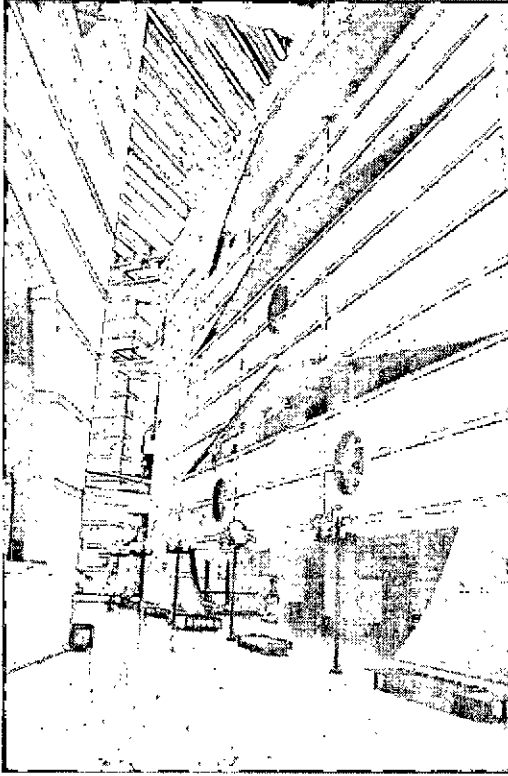


Fig.100: The street within the citadel

And as Kahn points out.

The street

“The street implies a public meeting place without a roof. A meeting hall is a covered street. This is valid in terms of encounters and assemblies of people. The street-facades of the buildings are like the wall of a meeting hall. The buildings created the streets of the city. Nowadays the streets no longer relate to the houses; they bound them and are reduced to simple traffic routes. To get back to the original concept of what

a street should be we have to redefine and order its movement. I would begin right now. We ought to define what rights buildings have over the streets that border them. In this way their character would be substantially modified”. [79]

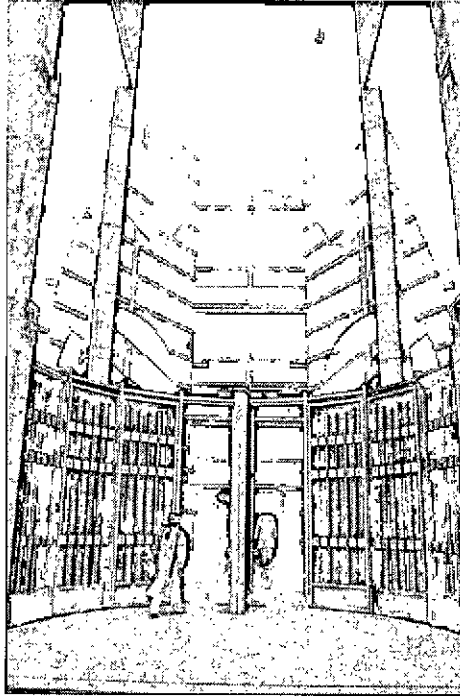
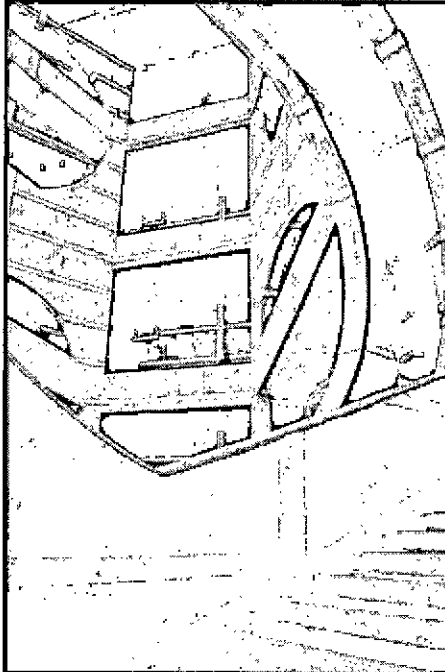


Fig.101: The northern presidential entry



*Fig.102: The spatial quality ———
totally timeless and ageless
Reaching from the archaic to the
modern.*

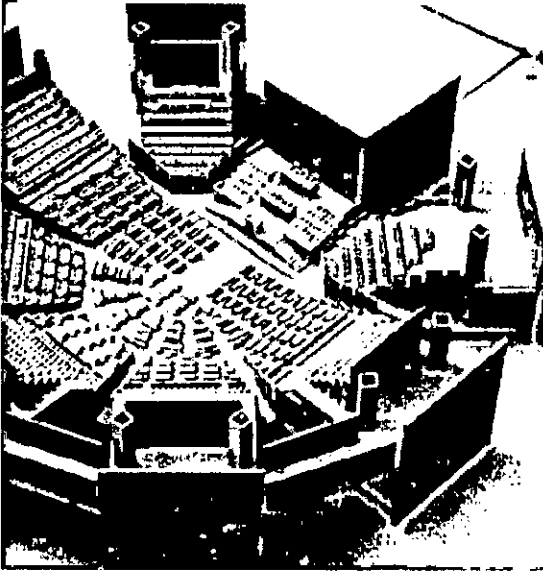


Fig.103: Interior view of model from north-east: assembly chamber without roof, showing the seating arrangement, hollow square structural columns, and triangular light courts.



Fig.104: View of model from northeast: assembly chamber with roof structure, showing large circular openings in the octagonal roof framing.



Fig. 105: The Assembly Chamber

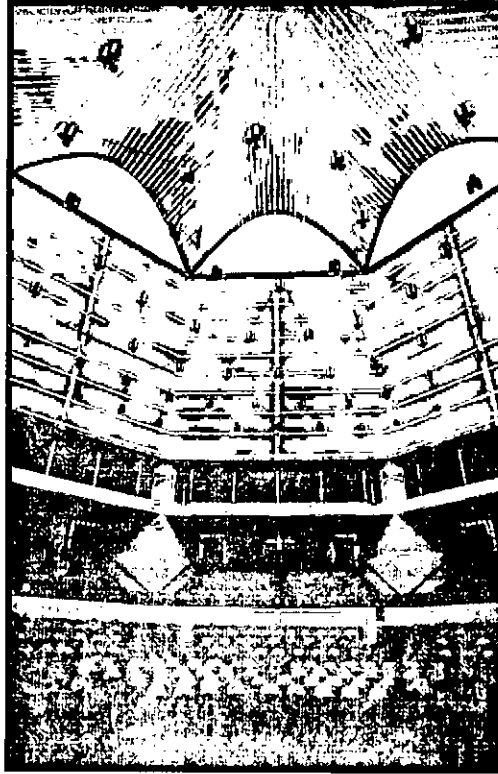


Fig.106: The canopy ceiling and the Assembly Chamber



Fig. 107: The Canopy Ceiling

Fig. 108:
MP
Hostels

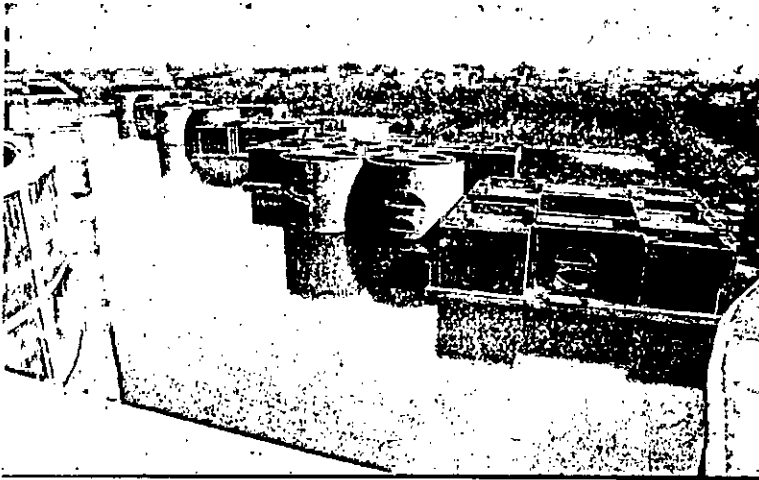


Fig. 109:
Minister's
Housing

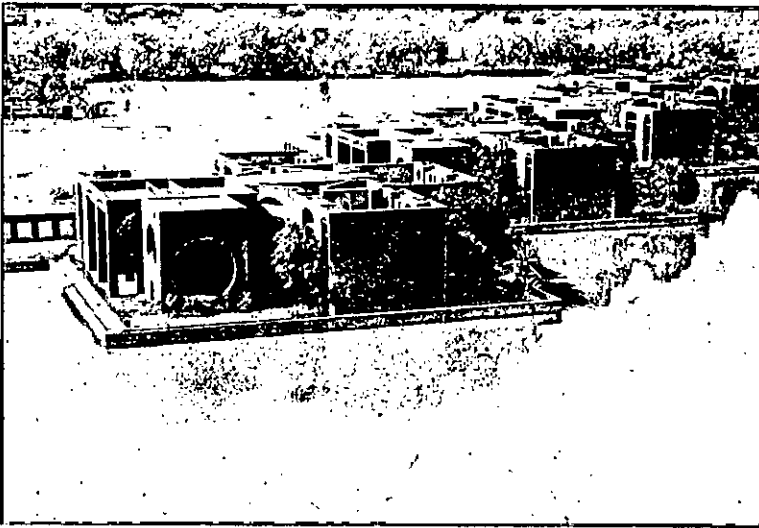
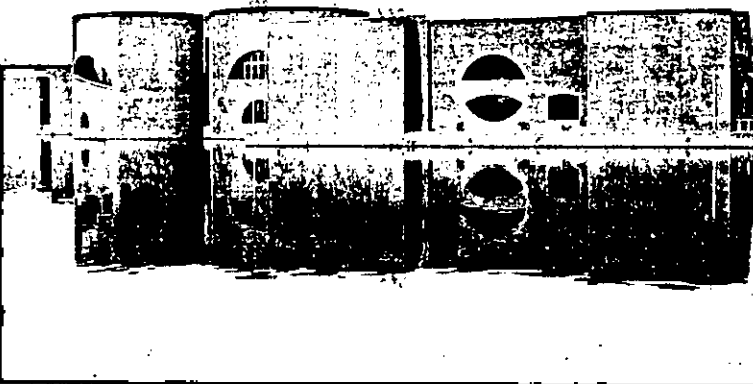


Fig. 110:
MP
Hostels



The MP hostels that flank the assembly are made of brick with large opening on a peripheral wall to cast deep shadows. They overlook the parliament against garden and the lake offering the sense of privacy and honor.

One author writes...

"He made a fundamental distinction between the monumental public realm of the assembly building and the smaller

hostels containing individual units?

The hostels are designed as studies and their gardens. This idea stems from the realization that a man leaving his home to participate in the acts of Assembly is

given privacy, a place of honor and a place for reflection in relation to his duties as a member of the Assembly. This approach to a place to stay distinguishes such a place from a mere hotel which is fitting to ordinary business than extraordinary business of assembly.” [80]

Regarding the building material of the hostels Kahn says..

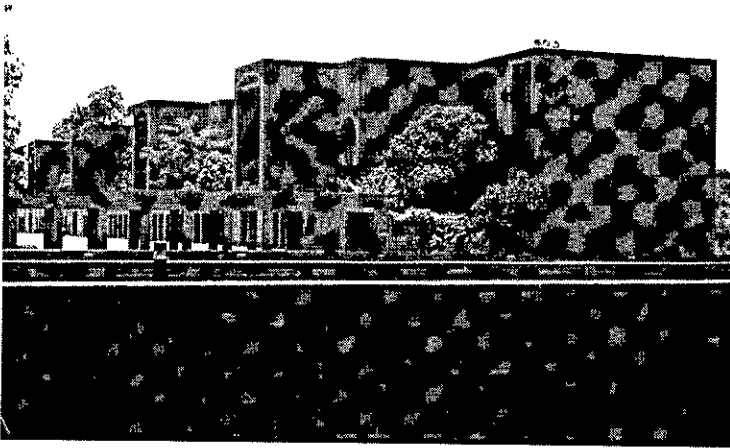


Fig. 111: The flanking structures in response to climate and building material.

“Other buildings related to the lake or on the grounds contiguous will be of masonry construction following the principles of architecture, which respect the influence of indigenous

conditions and from which all architectural gets its beginnings.”[81]

As we can see Kahn was very much conscious about the choice of material and way of arrangement of these buildings. Probably the most noticeable is the way light and air is controlled in the buildings-which shows a tremendous sense of context in term of climate. And its awareness while approaching higher philosophical values.

“There is order of wind, the order of light

The order of light tells you that the porch belongs to the sun and the place inside the porch belongs to man.

It has nothing to do with brises soleil devices to make shade.

It has nothing to do with air conditioning.

It has nothing to do with the architectural elements which talk about shade.” [82]

Kahn's concepts regarding his deep porches and openings are in no way incidental –the profound thoughts behind it merges with practicality and reality and emerges as more than meaningful manifestation. The following extract will be a witness to this.

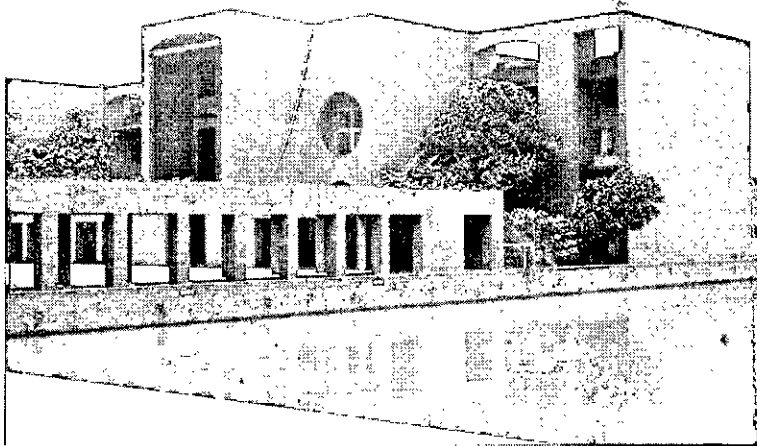


Fig. 112: Brick masonry reflecting local building material

"I offered the Pakistani a way of building a house. I did it much beyond the objections of everyone there. They gave me particulars, like the plinth, the platform

of a building, can have fifty percent useable and fifty percent unusable. They would add corridors and porches on the plinth. In my buildings, there is a hundred and twenty-five percent unusable space, not fifty percent, because the only way I could express it was with deep porches. Their idea of a deep porch is that it is as wide as it is deep, because I studied it from its value, not from the lip service you give a porch. If the building is smaller, it is even more important, because people sleep outside.

The idea was very attractive to them because they don't have to the people politically. I think those who have representation and control over budgetary conditions would have objected to it very strongly, and I probably would have failed to have full expression made. But where opportunity is, let's just be done. I argued against *brises soleil* for that reason. *Brises soleil* was a way of cutting out

the sun, but it also brought in heat, because all those surfaces gathered heat. It wasn't equal to the coolness of a shadow." [83]

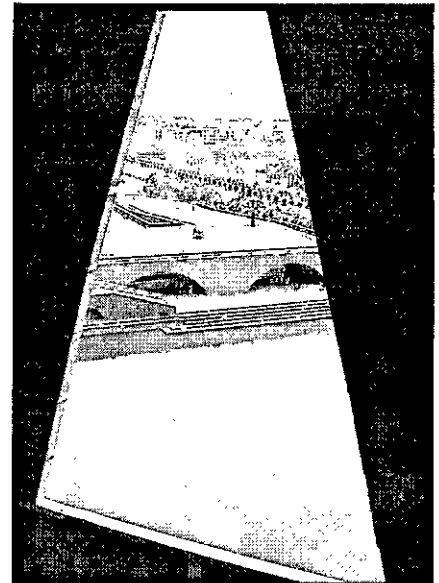
Kahn's response to climate to how he held place and climate as the primary context for design is further elaborated in the writings of

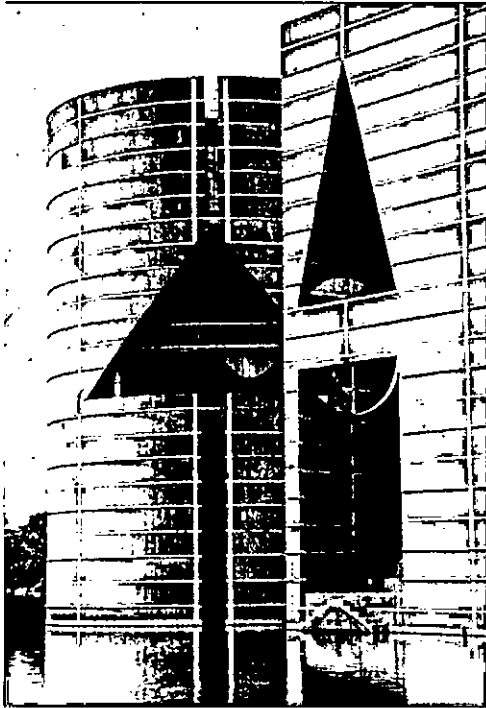
"Several important aspects of Kahn's design were a response to the harsh subtropical climate, with its scorching sun and seasonal monsoons.

Fig. 113,
114 :
Openings
that
command
the sun



The man-made lake surrounding the assembly building and hostels was intended to fulfill practical, symbolic, and aesthetic functions. Low areas on the site were to be filled with earth excavated from the lake, which was conceived as a giant basin to control periodic flooding. For Kahn, water was an important symbol of the beginnings of urban life, a belief that had recently found expression in his visionary Philadelphia's city plans. He admitted that celebrating the troublesome monsoons so prominently in Dhaka was also largely an aesthetic choice. Like the great Mughal monuments, the "citadel" was surrounded by a pool of water, which would dissolve the concrete and marble edifice into endless shimmering reflections. Moreover, the lake and park formed a boundary around the assembly complex, thus guarding its spectacular *vitas*.





The building Kahn envisioned also responded to the heat and strong sun of South Asia. Recalling his earlier projects for the U.S. Consulate in Luanda and the Salk Institute meeting house, the Dhaka design included elaborate screen walls perforated with large openings that sheltered interior spaces from the elements. He described the concept: "The architectural approach to the Assembly Building as for all the buildings is to find a

design which projects both enclosed and outdoor spaces from sun, heat, rain and



glare by the use of overhangs, deep verandas and protecting walls to accompany the directly usable spaces."¹⁷ Designed to soften the light while welcoming precious breezes, perforated seven walls and deep verandas appeared in all the buildings."^[84]



Fig. 115, 116, 117 : Shading walls and openings that are transcendent in nature, and almost spiritual in quality

"Kahn's sensitiveness towards the use of materials and his ability to judge, place climate, build technique and material in the same spectrum in order to achieve a meaningful-flawless formal outcome is repeatedly displayed in this project.

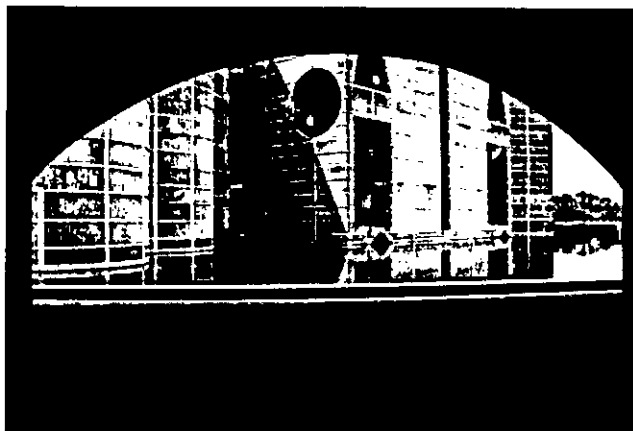


Fig. 118: Form beyond form making

The following extract will help us to understand this.

"It is the composition of elements, which comes from form. Form is the distinction of the inseparable elements.

If you take one of them away, you do not have the atmosphere you expect from architecture.

In the development of elements, you get an order, because when you go to make something you must call on the laws of nature. You must know the order of brick-

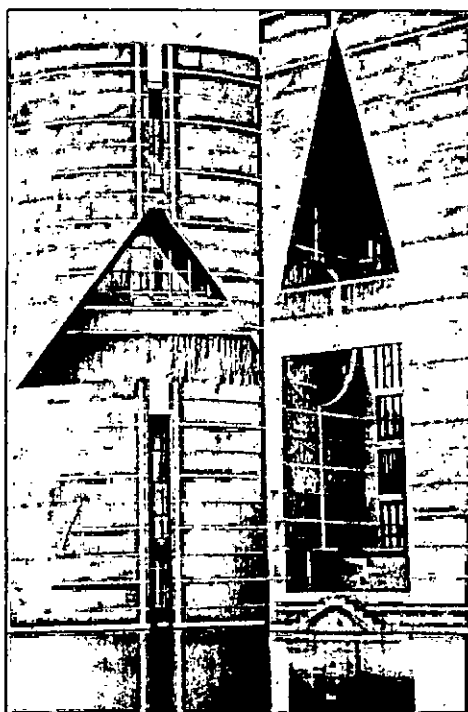


Fig. 119: Marble strips covering pour joints

not just brick which is so much per thousand, but the order of brick. If you are using a lintel of concrete, you are composing a composite order in which brick does one job and concrete does another. If you talk to the brick and say, How happy are you? You will find he is pretty unhappy. So it is knowing stone. So it is knowing concrete.

In Dacca I knew when I started I would get a miserable job in concrete. I didn't want a miserable building. I realized the trauma

comes with the joint when the pour is over. That's when all hell breaks loose.

Nothing could be more ugly. We prepared for it by saying our pour should be no more than five feet high and then something must be left at that point, the event of the joint which can make the joint glorious and contrast with the rugged work.”[85]

“This concrete is made in five-foot pours with a marble insert every five feet, and this covers the point of termination of the pour, and also acts as a wash on the outside (there are three hundred inches of rain there) every five feet on the building. This is so the building does not get damp throughout from the water that is above. Every five feet determines its own water stop. That is the general theory behind the making of concrete. It also works with their economy and their way of pouring concrete because they have no machines. They just have a swarm of bees, people, and you don’t see what the work has been during the day until they leave! For this reason they are also using sticks instead of vibrators. The idea of controlling the length of pour was part of the design.”[86]

Kahn’s understanding of the concept of available material and construction

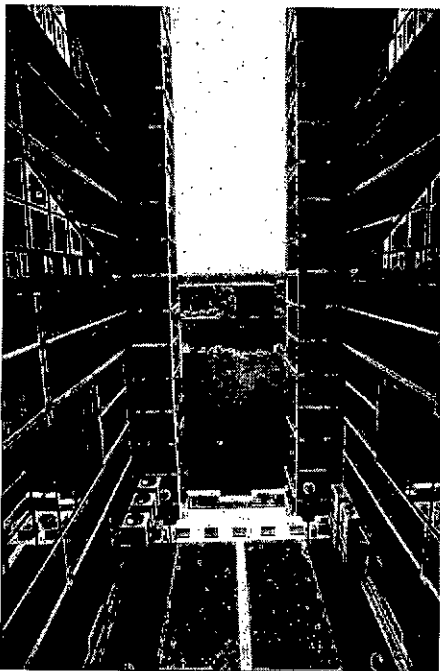


Fig. 120: Transcendent nature of space

technique was truly outstanding. This resulted in his ability to design a building true to its place, climate and socio-economic structure. However, the limitation were never expressed as a derogative feature, rather they were transformed into a uniqueness transcending into profoundness.

“The concrete was poured in five-foot-high sections, the maximum feasible daily total. This established a module that was reflected in the walls, with ribbons of marble marking

each day's pour. The result was a delicate network of white marble lines that contrasted with the sober concrete; this Kahn described as the "male" strength and stability of concrete, and the "female" beauty of marble."^[87]

It is truly amazing to see how he can even take into account the limitations on building technology and turn it into a poetic statement. It is probably his sensitiveness of a place, climate, and material that develops a work that communicates in very basic terms and effortlessly establishes its vitality.

This project almost vibrates with mysticism it is "great event" rather than built form. Its ties with religion and culture- address the aspiration of the people and fulfill it- and it becomes a temple dedicated to the people and their institutions. It talks of their heritage, their way of life- it demands their commitments and their visions.

It offers to architecture the gift of "truth" in every thread of its making. It becomes the best a building can be- timeless.

Even as Khaled Ashraf writes.

"In the Assembly Building, the focus of the Complex, major architectural streams, Roman, Renaissance, Mughal and Modern, seem to have converged-not in a synthesis but as a palimpsest—in one single architectural event. Beyond its immediate architectonics, but primarily through it, as it emerged from the land



Fig. 121: Timelessness, the true measure of Assembly Building - Shere - e -Bangla Nagar

and water, it took on a haunting presence in the natural and cultural landscape of Bangladesh. Long before its functional occupation as a political "citadel," it became inscribed in the collective mind, paradoxically through its "ruinous" image, as an emblem of things to come. Like an epic, which is no longer of a time, but of a cosmic time, and time and time again, it spoke of essential things, things around which life coheres and seeks meaning. "[88]

He falls of offering all the praises it deserves.

Its almost cosmic presence with time and time again make us aware of architecture's greatest frontiers.

DISCUSSION AND CONCLUSION

In the previous chapters the contextuality of Kahn's projects in the sub continent have been discussed.

Kahn's work in this region often goes unappraised and never understood for its true value.

Kahn's approach toward "context" holds greater value than the charms of "superficial regionalism". The purpose of this work is to make aware of this finer and profound approach towards architecture so that we do not succumb to the cheap excitement provided by "styles" and "isms"

In a time plagued by commercialism and skin deep architecture it is vital that we do not loose track of the greater premise of architecture.

Starting from the basicness climate to the aspirations of a nation, to the institutions of mankind "architecture" completes its journey in Kahn's work. Whether Kahn's perception and conviction of context is valid? This is only too well proven if we consider the extracts from the modern philosophers in the first three chapter and their reference drawn in the forth chapter.

These tables almost leave us in a trance as it is truly amazing how one can think and work with such clarity and truth that it all stand alongside the very basics of modern philosophy in the field.

"Context" find greater meaning in Kahn's work. It stands out to tell us of the shallowness of "isolated phenomena".

As he said,

"How delicate than is singularity."

This study thus strives to confirm the value of "context", the valid 'context' in architecture, and its validity and absolute presence in architecture.

It strives to negate cheap 'superficial elements', shallow fenestration, cliché and stylistic approach and "shortsighted regionalism".

It holds Kahn's work in the region as evidence of true context in architecture.

It validates the contextuality of his work in the region.

As we have seen in this study - in all his works in the region Kahn was extremely sensitive towards context in terms of place, history, climate, culture, and people etc.

In the work at Nepal he was able to bring out the nature of building of traditional Nepalese architecture of transformed them into a modern abstraction free from stylization.

At IIM in Ahmedabad, the ancient morphological character of the religious institution at SarKhej finds way into Kahn's institution, - with extreme sensitiveness to climate and material but the resultant profoundness of the institution brings into light Kahn's philosophy of institution of learning and impart to it a transcendent timelessness addressing the greater values of man.

At Dhaka the religious and socio-cultural aspiration were addressed, a great political statement was made with total respect to climate, material, building technique and without any superficial, elemental representation. Context was addressed in all his projects, but compromises were not made. Climate, culture, people, and place were treated with utmost sensitivity, without any signs of cliché. At times when we find ourselves lost while addressing particular situations without being too narrow vision or bogged down into simple linear representation, Kahn's profound work in the region should work as an awakening.

It thus provides direction for the architects in the region to go on to develop more meaningful work and free them from the clutches of confusion and desolation.

Architects today are often faced with extremely "planned" and "fast changing" situations. Also, in a world that is faced with the issues of globalization, global culture, etc it is hard for designers to place issues in "context" and assent its validity. This leads to the rise and fall of many "issue" and "schools of thoughts" but namely provide more than excitement and "Fashionable development" which will never really pass the test of time.

Philosophically unistrained. Ideologically mixing and architecturally timeless - is often uncared for - and a short cut to thrill on seductive intellectualism plagues many development around us. This work will put many things into perspective. Kahn understanding of contexts, its manifestation in the subcontinent has been discussed here - bringing out his great ability to oscillate between the particular and the infinite - transforming place - climate, culture into timeless forms.

This study thus provides insight and direction to architects of our times to evaluate context and to put it into perspective and to go on to develop profound ideas void of shortcomings which in truth and abstractness and a great understanding of today, yesterday and tomorrow.

It also strives to provide direction in terms of addressing issues - putting them in context and concerning a architectural manifestation. Above all it strives to see through Kahn's eyes and to bring out a better realization and appreciation of his work in the region - and their context.

"WHAT WAS HAS ALWAYS BEEN

WHAT IS HAS ALWAYS BEEN

WHAT WILL BE HAS ALWAYS BEEN."

-LOUIS I KAHN.

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APPENDIX:

ESTATE OF PRESIDENT, ISLAMABAD

In June 1959 Field Marshal Ayub Khan decided that East Pakistan and West Pakistan should have two capitals. The executive capital was to be in Islamabad and the legislative capital in Dhaka.

Islamabad was laid out on the pot war plateau at the Margala Hills. The master plan of Islamabad was designed by Doxiadis.

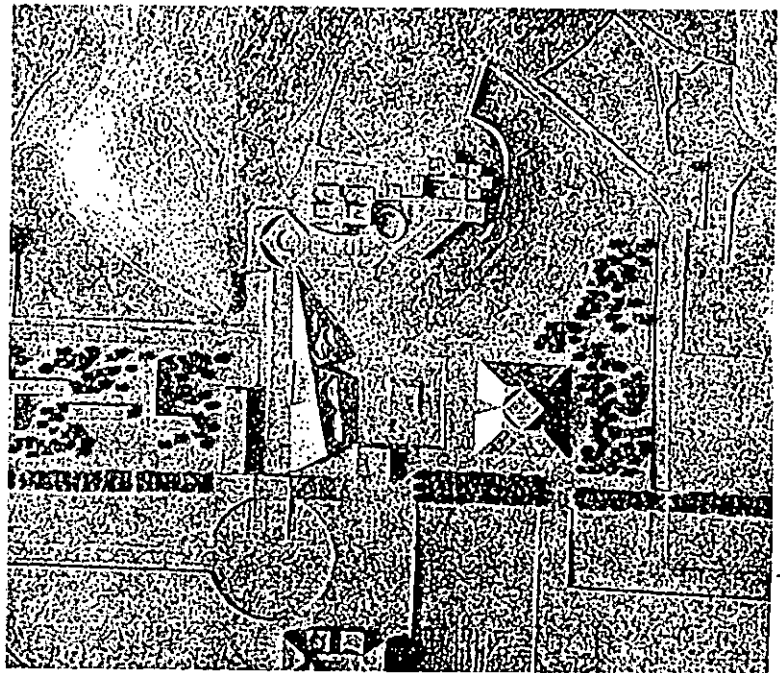
In 1963 when Kahn was commissioned the administrative center was already built. It was designed by GioPonts.

Kahn' program consists of the followings.

House of parliament
Supreme Court
Museum of Islamic
history.
House of the
president.

Fig: i

Shows a plan view of
the site model. It
shows the existing



administrative building that was designed by Gio Ponts to the left.

Fig: i

The triangular structure in the middle of was the museum of Islamic History. The truncated pyramid was the House of parliament.

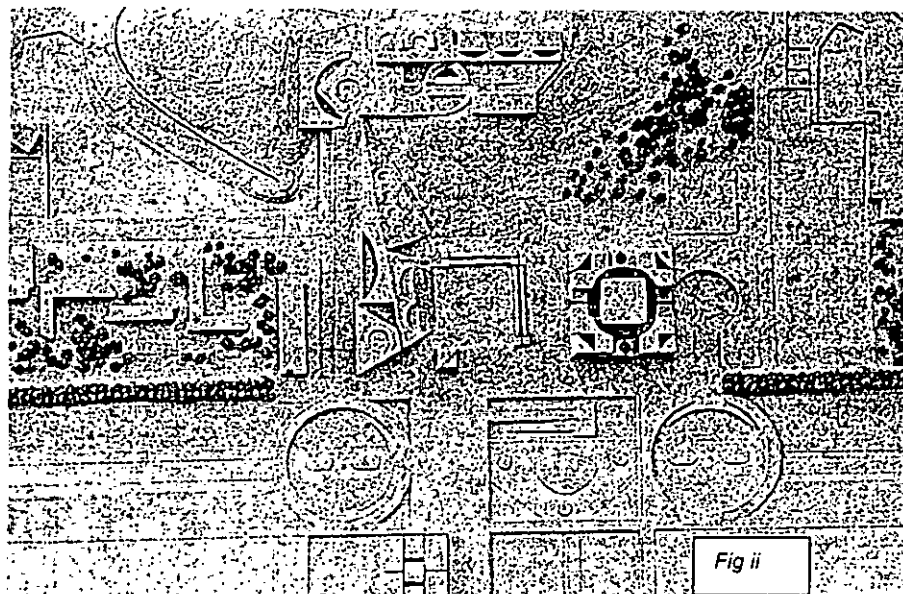
The presidential estate is to the top and placed on a hill overlooking the rest.

Fig: ii

Shows a
more detail
version of

Fig: i

In a letter to
Sir Robert
Walter in
Scotland on
January 8,



1965 Kahn explained this scheme.

"The President's Estate and the Parliament building are each connected with the sunken highway by a circular ramp. Kahn explained the revised proposal in his letter to Sir Robert Matthew of Scotland, on January 8, 1965:

"I have given more detailed study to President's Estate and the Presidential Square and its buildings. I have changed the President's House to strengthen its architecture. The position of the entrance buildings and the President's Personal Secretariat is essentially the same..... The landscaping of the two hills and the lake area harboured by the three hills is now more understandable. "The National Monument on the square in place of the Cabinet Building is suggested out of the recent realization that it could be a new concept of Minaret embodying a small chapel raised above the level of the square, and a special platform where one could

preach facing Mecca the multitude on the square. This square is being suggested as a roofless Hall of Meeting." [66]

"The building for the Council of Islamic Ideology is simplified and has woven into it the Cabinet Building. This building promises, I believe, to be one of the more interesting buildings I have designed. The Assembly Building has remained essentially the same. Its shape was praised by Noguchi who was in to see me few days ago. He helped to strengthen my mind about its relationship to the rest of the composition. I have improved the landscaping and the street and traffic conceptions."

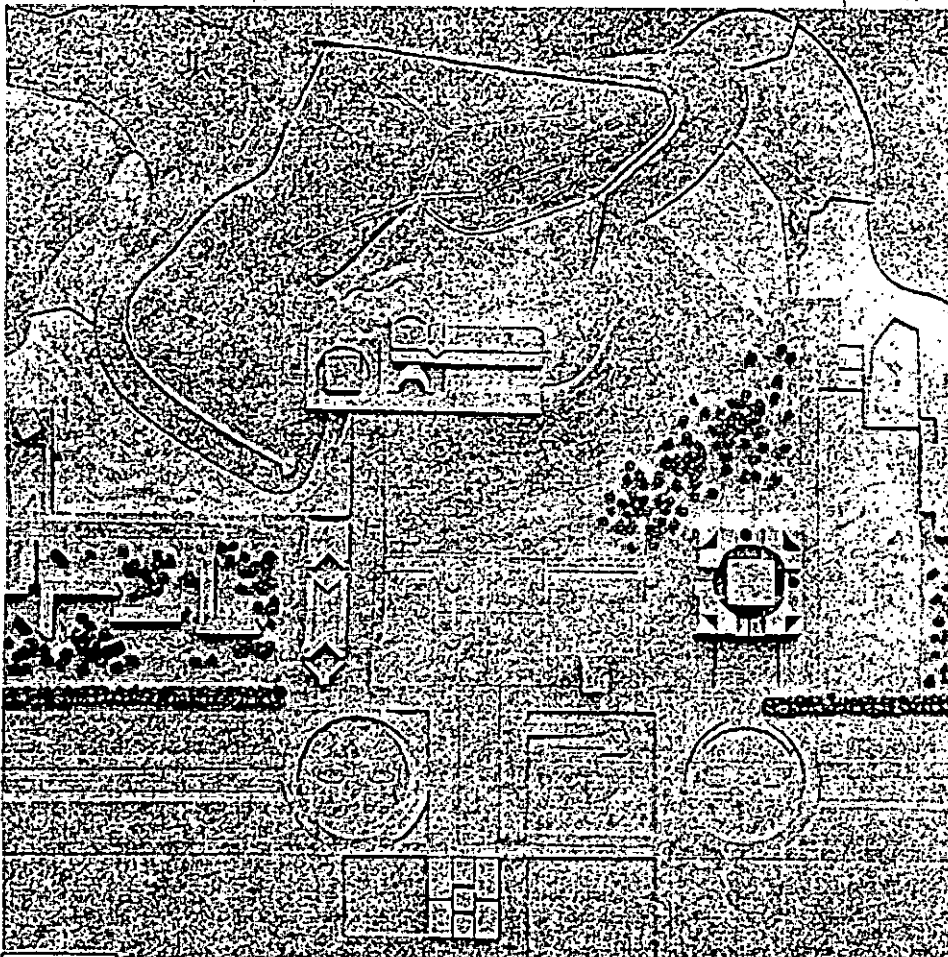


Fig.iii

[66]

Fig: iii as a
"View of site
model, from
south east,
showing
sunken
highway to
the left; the
Presidential
Square to
the right; the
parliament
building to

the foreground; and a museum with a ramp giving access to its various levels. The chapel minaret dominates the Parliament Square." [67]

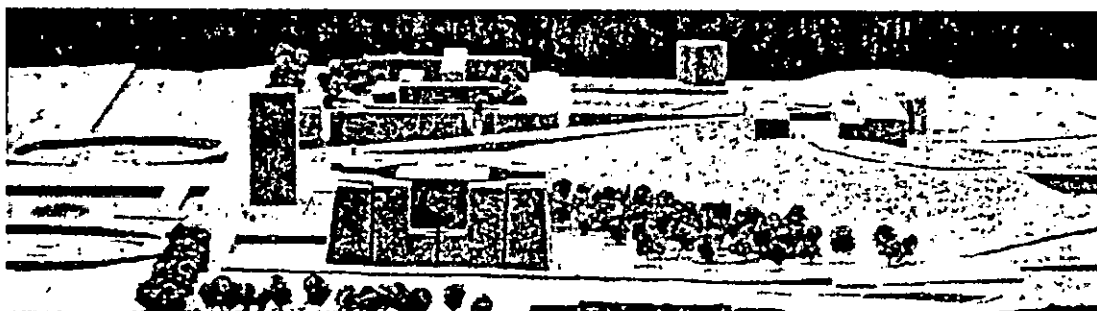


Fig: iv

Fig: iv is the "View of site model, from southwest, later version showing the Supreme Court and sunken highway with circular ramps in the foreground; existing administration buildings to the left. The Presidential Estate on the hilltop is now connected with the museum. The assembly hall of the parliament building has acquired a dome shape. The chapel minaret is replaced by a monument carved into the Parliament Square."

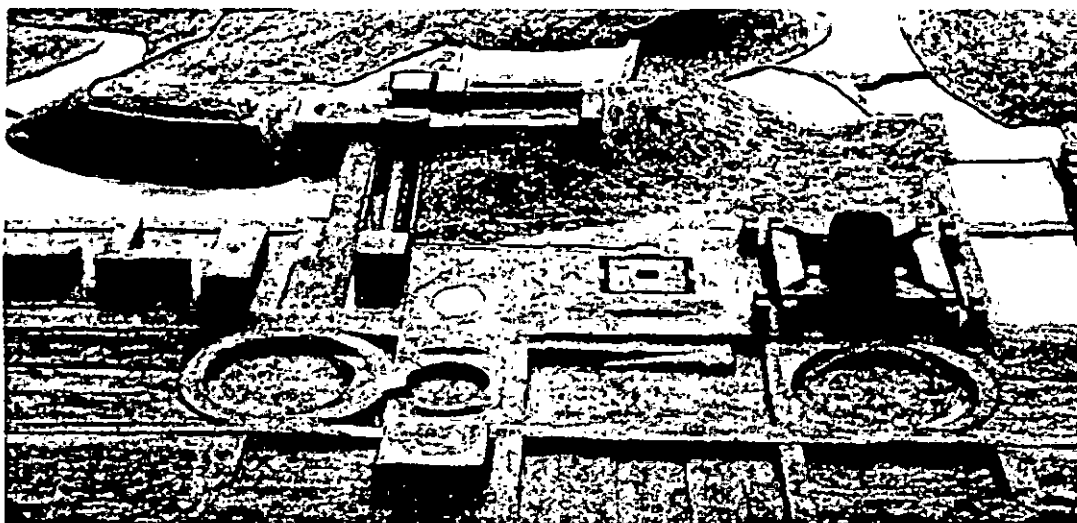
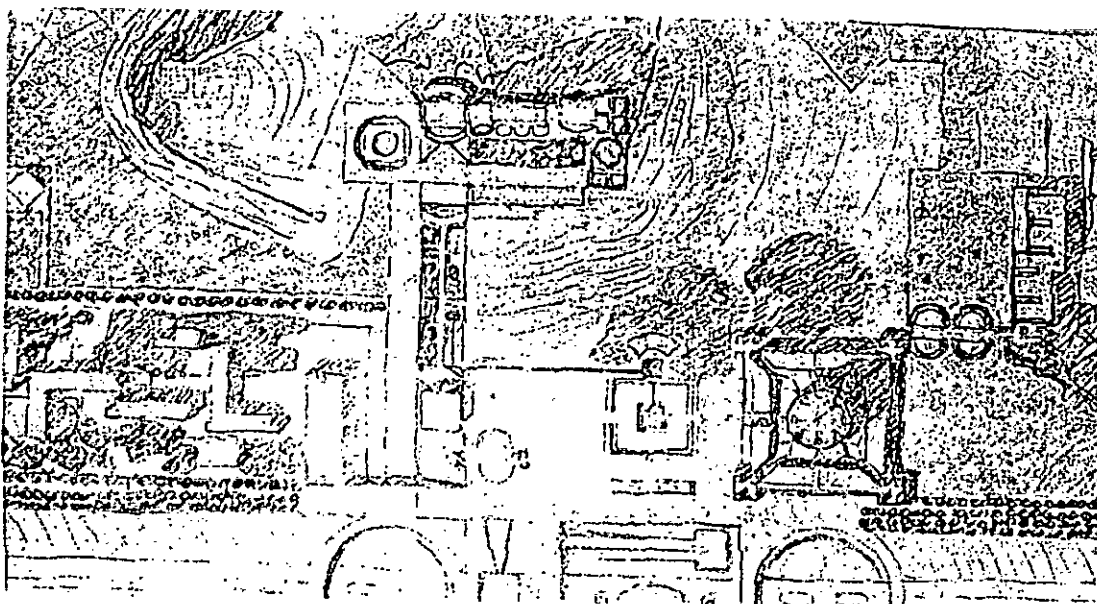


Fig: v



Sketches of the developed masterplan

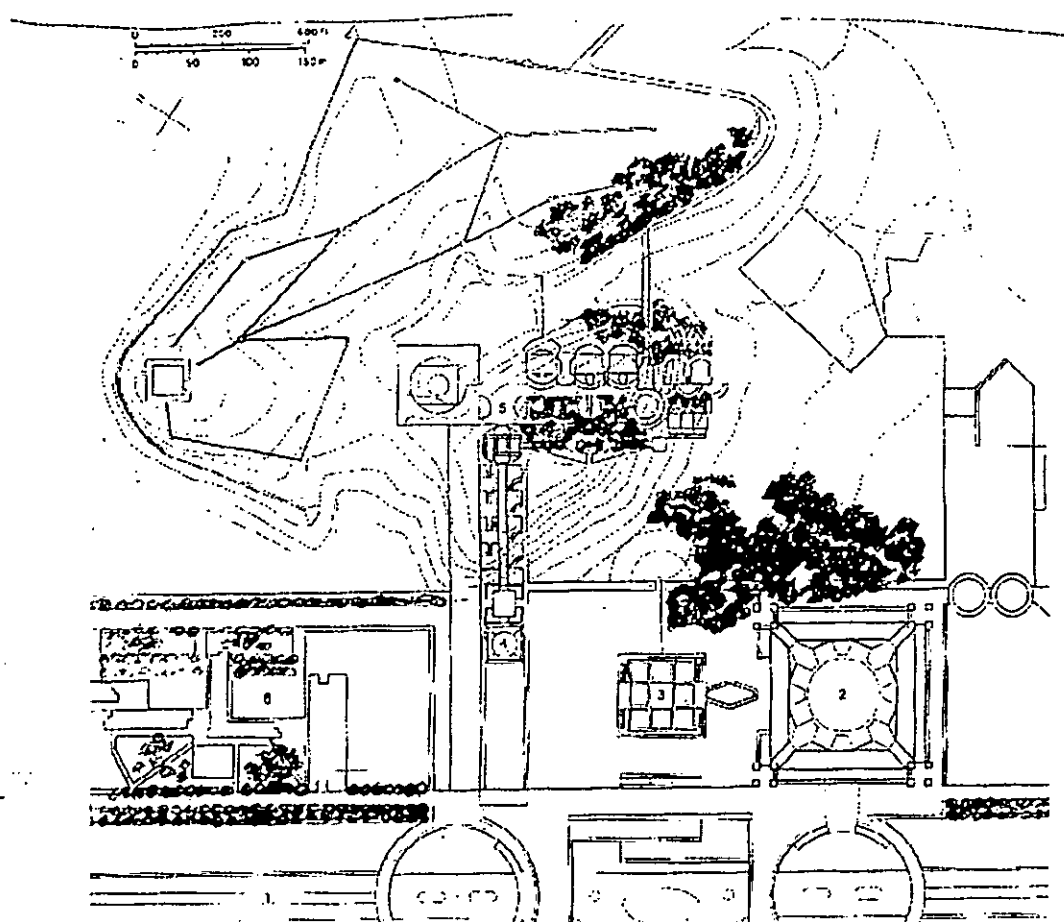


Fig: vi

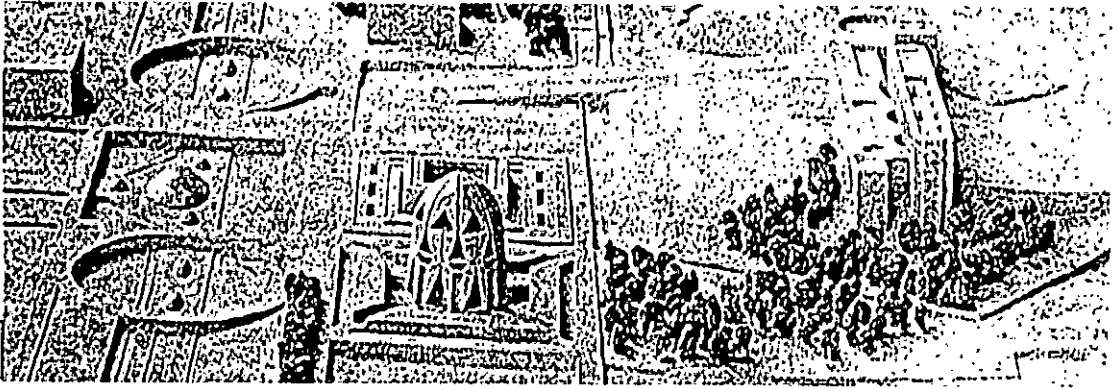
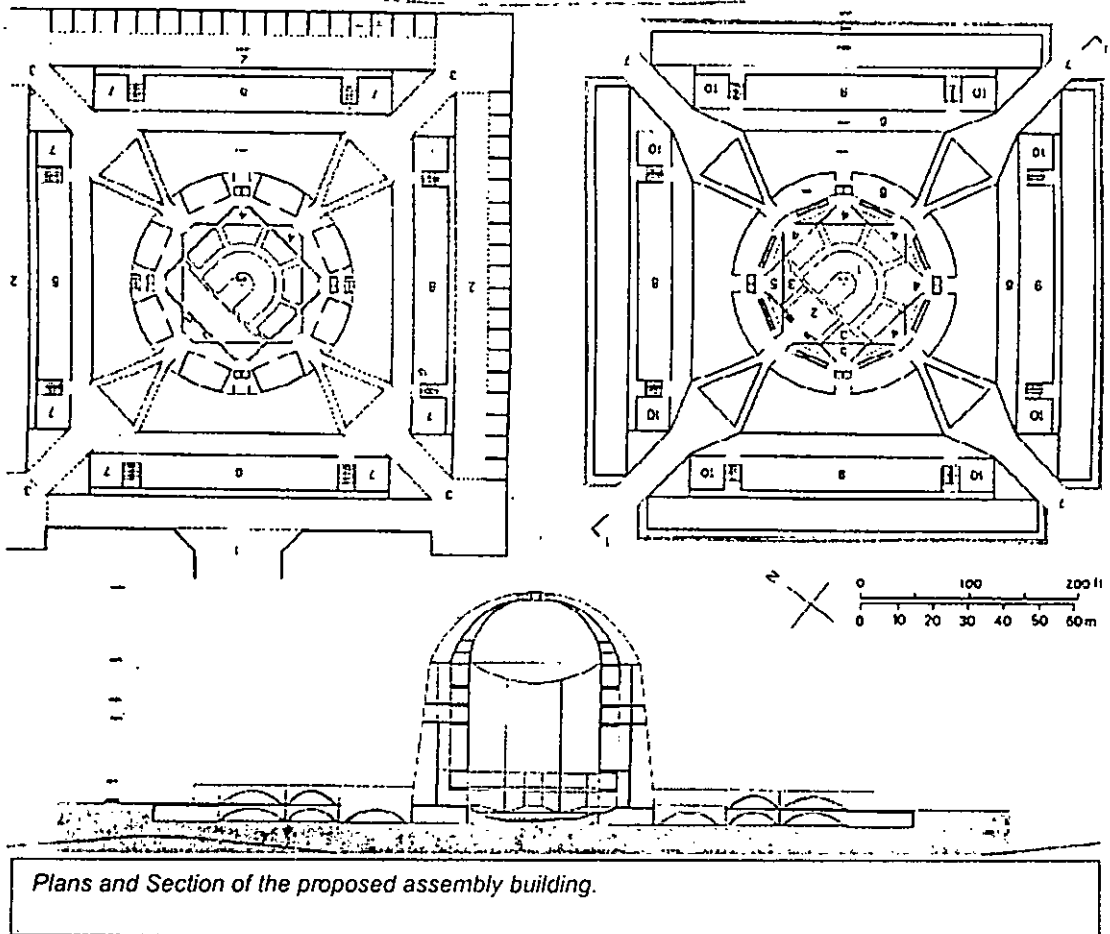


Fig: vi is the----"View of site model, from southeast, showing sunken highway with circular exists to the left; the Presidents house to the right; assembly building to the foreground; and the monument just behind it. The museum of Islamic History is omitted." [69]



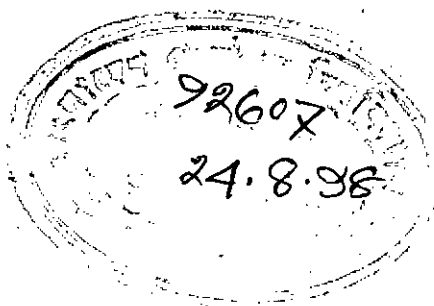
Plans and Section of the proposed assembly building.

All these development were very site conscious and also influenced greatly by the social and Islamic values of West Pakistan.

In an exclusive interview in 1983 to N.R. Khan- the architect Zahiruddin Khaza who was advisor to the committee on the project reveals valuable information. He points out that Kahn liked the site location and was keen on preserving site qualities of contour and setting- and he timed arranging the scheme to enhance the site. And also his understanding of the harsh climate guided him to develop building with shading walls with large openings with the second layer of glazing - a concept that he later carried on to parliament complex in Dhaka. This Islamic heritage and social beliefs guided Kahn into incorporating elements like arches and minarets etc. in an abstract form in the scheme. Site, climate, culture all were accounted for yet the scheme was uncompromised with style and cliché and Islamic details.

Even though the scheme delivered the aspiration and belief of the "people"- it failed to realize. On this Zahiruddin Khaza comments as he was the only architect and in the capacity of an advisor to one of the members of the committee he could not assent his opinion. The committee comprising of bureaucrats only was adamant in their opinions that the buildings had to be "Islamic". It had to have arches and a dome and so on. They could not apprehend Kahn's abstractness on its profound approach to culture and religion and were not even convinced when Kahn transforms the assembly to a domical form.

Their superficial elemental approach towards "Islamic Architecture" became the pitfall of the project and Kahn's commissioned was discontinued.



Architect Zahiruddin Khaza tried very hard to convince them but dogma prevailed.
Even though the project was unbuilt its plan and its concepts remain an inspiring,
sensitive, visionary statement.