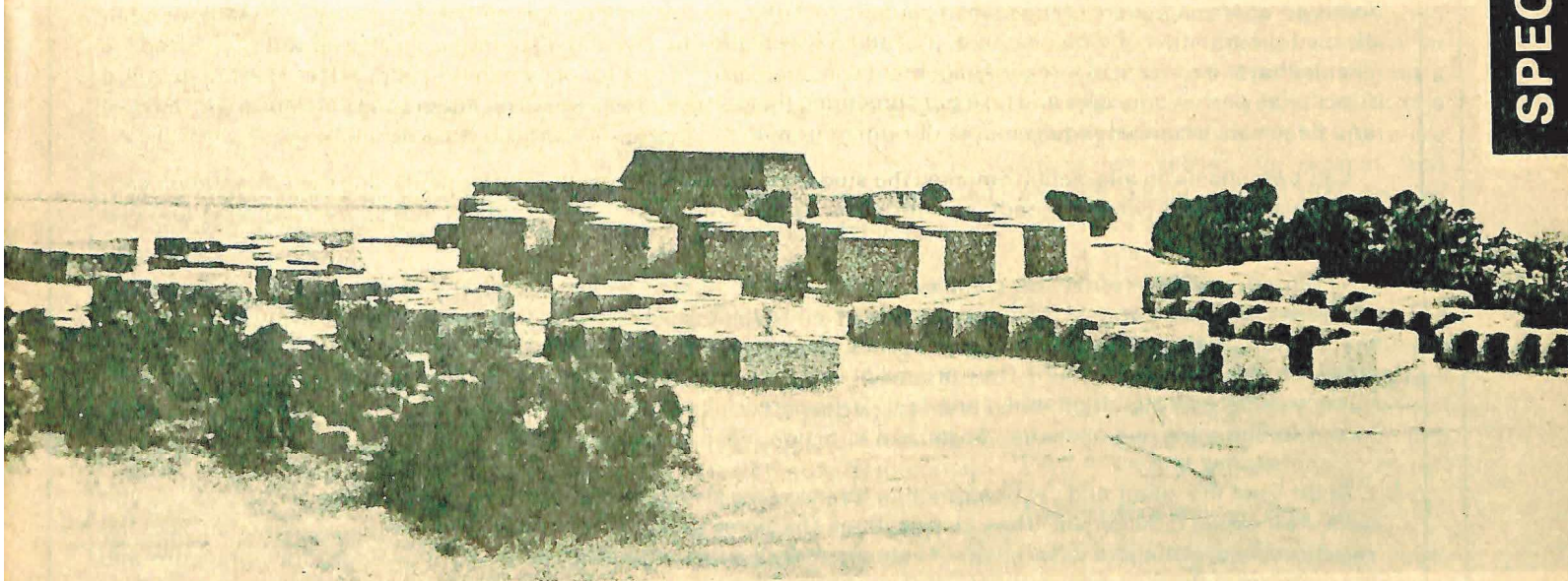


Kahn's Monastic Vision : Architecture at IIMA



IIM.10 View of site model, second version, mid-1963, showing hierarchy of building masses, with staff housing in the foreground and dormitories and school building to the rear.

The plan comes from my feelings of monastery... The School and the Dormitories are a unit, like a monastery.

The Institute campus consisting of a cluster of curious shaped brick buildings "reminiscent of the monuments of Nalanda University" is the inspiration of Louis I. Kahn, who chose and arranged to 'express in spaces, environment and relationships of man's institutions'. Kahn was invited by the National Institute of Design, Ahmedabad, which was entrusted with the responsibility for designing the campus as its consultant on the project. Teaching at the University of Pennsylvania, Kahn enjoyed in the words of the *Time* magazine, a 'near divine status' in the world of architects. In designing the campus he was assisted

by two other distinguished architects, B.V. Doshi and A. D. Raje of Ahmedabad.

The design provides for a number of buildings with different functions : the main academic and office complex, dormitories or hostels, residential buildings for academic and administrative staff, shopping area, sports complex, executive development block, and service tower. The unity of the teaching building, dormitories and teachers houses - each its own nature, yet each near the other - was the problem that Kahn gave himself.

Main Complex

The main complex is a rectangle with the teaching wing on the southern side, faculty-administration offices to the north, library to the east, and kitchen and dining hall to the west. In the middle of this complex is an open-air assembly and a landscaped courtyard, a meeting place for faculty, staff, and students. The main complex is an organization of courts, light wells, and services related to the main body of functions. The teaching wing consists of six classrooms with seats arranged in a horse-shoe pattern and five seminar rooms. The library is designed to house 100,000 books and periodi-

"To Lou, architecture was the offering of the spirit : Doshi.

Mr. B. V. Doshi, practising architect and faculty at the School of Architecture, Ahmedabad assisted Louis Kahn in designing the campus and looked after the architectural interpretations whenever Kahn was out of India. Following are the excerpts from his article "Louis I Kahn - in India," a + u (Architecture and Urbanisation), Tokyo, 1976.

Kahn's belief in "Man and his Institution" was very much convincing. When called upon to design the Indian Institute of Management, Ahmedabad campus in 1962, he not only discussed the concept of the institution but studied the tradition of Indian culture, the Indian way of life, the city and institutional structures and convinced his clients that the concept of mere management will not make the institution which they aspired for. It is not merely a functional, perfunctory give and take but something more. His emphasis was on integrating education with culture and health as essential requirements of human growth . . .

Lou's emphasis on interaction amongst the students, between the faculty and students, and their integration with the functional and climatic needs are the major contributions to this institution and its ever growing unusual programs.

When one walks around the complex silently, 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. The intermediate spaces, with their openings and formal linkages are one of the major characteristics of this complex. They are made in such a way that in spite of their rigorous geometrical order, their humble scale and invitation make one feel participate in "the act without becoming an actor". Here, one easily recognises the marriage between Form and Function, each evoking the other.

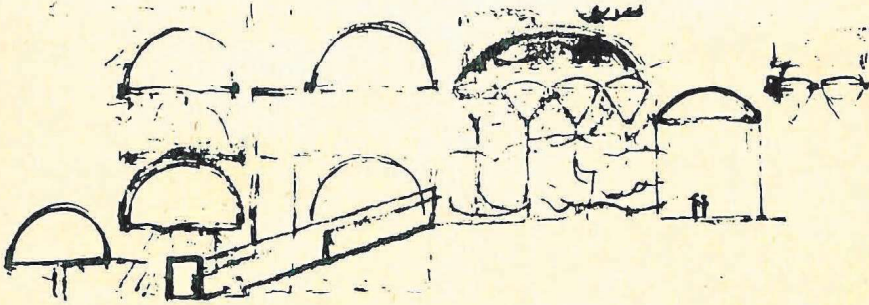
Apart from the silent and yet predominant inter-linking structure of the spaces, his "Treasury of Spaces" as Lou calls, has varied dimensions. They change their character from place to place and function to function. Like the variation in spaces, there is variation in volume and structure. The apertures in the buildings, their directions and the surfaces of the load-bearing brick walls confirming the openings seem to tell us of the type of activity, one should anticipate. Finally, all this mass of solids and voids tells us of their cause of existence. Like Lou's famous statement "Ruins of historical buildings always talk to us about the life they lived". This complex, during summer holidays, with very few people around does the same . . .

Lou has brought back the old technique of building in brick to the forefront. It has made us realise how beautiful things can become when they are integrally conceived and made. The two-storeyed halls in the club rooms of the dormitories created a segmental arch and buttress. The character and form that emerged out of this simple building strangely enough is similar to the buildings at Mandu, built during the 12th century. The architectural expressions are almost alike. It is here that one understands how the same technique and faith can result into something smaller.

This theme of brick technology, in its load-bearing-walls and brick arches for spanning a space or relieving the load from the walls above has given the campus a rhythm. It has different moods in different times of the day and different seasons. When one feels this, one understands its closeness to Indian life style. This achievement to create an institution which belongs to people, and yet is prototypical, is worth considering.

During the thirteen years of my association with Lou on the Indian Institute of Management, I have seen him exploring the timelines. Before he left for Philadelphia on March 17, 1974 he spoke of Buddha. He spoke of values. He spoke of consciousness. He spoke of spiritualizing matter. And in all this one could see that his definition of architecture was the offering of the spirit, which one can feel, but not touch nor smell. This reminds me of the temple complexes in India, which have order and informality, have spaces and places for one and many, for joy and sorrow, and that is why the temple tradition is still strong in India. . . .

In Lou's creation of the Indian Institute of Management, I feel that he has great deal of the temple tradition.



IMS. 14-15 Elevation and section sketches, April 20, 1964, showing studies of classroom wall articulation in relation to diagonal ceiling grid.

cals. All the buildings face south west for the maximum advantage of light and prevailing winds.

In one corner in front of the main complex is the service tower, a massive structure which stands like a sentry and symbol of a temple of learning. The skyline of the campus gradually rises and attains the highest position with the school buildings as if to remind the outside world of the *raison d'être* of the whole structure.

The spaces created with the classrooms and small-sized seminar rooms give a feeling of closeness essential to encourage the spirit of exchange of ideas between the teachers and students. A much wider corridor leading to the classrooms is not merely a passage but also a meeting place to pro-

vide opportunities for continued discussion and self-learning.

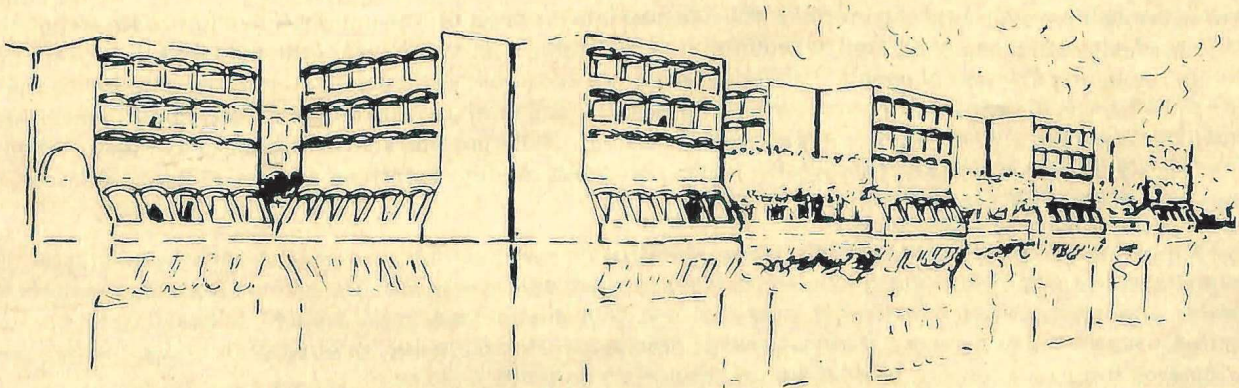
Dormitories

"The closeness of the dormitories to the main complex with a series of arched corridors and landscaped courts is intended to help the students carry on with the mood of discussion even when they come to dormitories." The idea of the seminar classroom and its meaning to learn extended to the dormitories, according to Kahn, comes from the Harvard Business School. The courtyard streets of the dormitories connected to the dialogue oriented corridors of the classrooms and seminar room blocks provide for a continuous day and night rapport between the students and the academic.

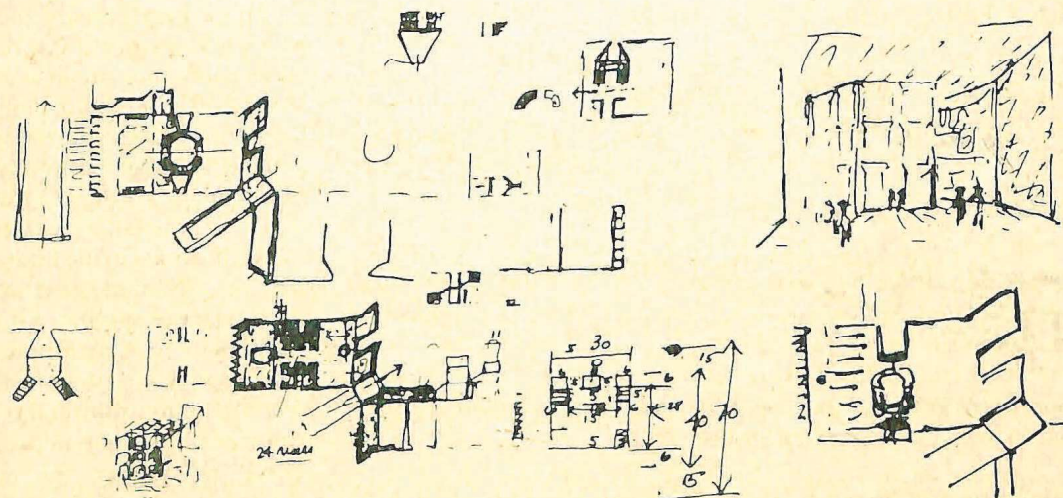
The dormitories are placed diagonally in rows of three around courtyards with their main walls running towards the main building. The third dormitory in each row has a club room at the court level for the students. This club room, according to Kahn, "is the space of invitation vested in each house and adds to the inter-hospitality of spirit embodied in the seminar idea of exchange among students and teachers." The dormitory rooms in groups of 10 are arranged around a stairway and a tea-room hall. In this way, corridors are avoided; there are rooms or spaces for casual and seminar study instead. The lounge space on each floor of the dormitories is the space where the 10 students living on the floor may analyse and discuss academic advancement. The tea-room entrance, the positioning of the stairway and the wash-room are meant to protect the living room from the sun and glare without obstructing the breeze and ventilation.

Faculty Houses

The faculty houses are placed diagonally around a court and retain strictness demanded by the orientation of prevailing winds and light. The faculty houses are systematically planned with services in the centre and living on both sides. The open terraces with their walls stretched up to the first floor are a feature in every house



IMD. 29 Perspective sketch, from west, showing lake in front.



Plan and interior sketches, May 14, 1967

"Kahn's search for relationship with one's heritage and nature"

Mr. A. D. Raje, the Institute's Architect and Visiting Faculty, School of Architecture, Ahmedabad assisted Louis Kahn in designing the campus. He talked to Alumnus about Kahn as a man and architect; his philosophy and teachings. We reproduce Mr. Raje's impressions :

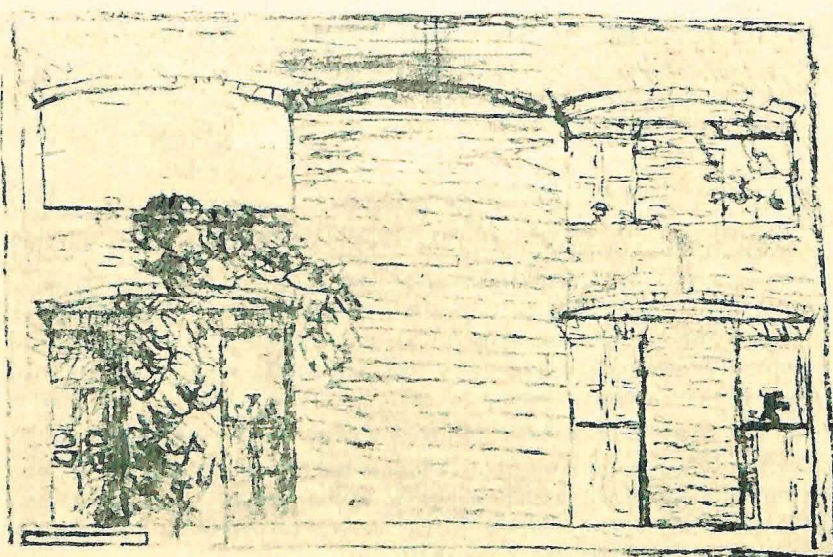
As a man Kahn was not a pompous kind of a person. He had a sense of the ambience of the human behaviour and, therefore, a great respect for the thought which came from any one, without making a distinction that he could find a source for new thought and new action. To him the spirit of man and his consciousness was the uppermost. His philosophy basically was "to live is to express and there are as many expressions as there are minds".

Kahn took architecture as an art more than anything else. He tried to inculcate in his students, who came from all over the world, an awareness that there is a lot to learn from one's heritage, from the way of life of people and a particular understanding of building materials. Until his time, architects of international repute, like Wright in U.S., etc. were involved through their work into making the polymics. His teachings mainly involved in talking to his students his own realisations in architecture. This appealed, both, to the students and professionals because he made the others aware of their ability to perceive in a certain situation, to find out the nature of things. As a metaphysician he made people aware of their perceptive abilities, to find out what is wilful and what is subservient to the wilful nature.

As an architect, Kahn was the most perceptive of people and his love of the archaic, which was throughout with him, gave to his work a kind of continuity from the past into the present. The notions about future were something to him which cannot be anticipated because of the innumerable circumstances that shaped the future of any given things, including the lives of people. Therefore, in many a sense this particular continuity prevailed in his work all the time. Hence, his work did not become new designs but something in the form of the statements which did not have the finality to it. In his work and teachings, he thought that man was able to rise above mundane things and that all his actions expressed through his works. Architecture has something eternal of spirit, indestructible about it which could create a sense of history.

Kahn got involved with the work at various levels of the development of a project and it was difficult to get adjusted to his way of working. It involved making so many attempts to redefine various aspects of architectural design, that many things remained in a state of flux. This is what he actually wanted, to search for a particular form for which the dimensions were not easily obtainable. He also made an attempt to find out where things originated from so as to look into certain aspects in all its purity.

Kahn tried how not to make apartments, but, individual houses with a courtyard and a garden. His idea was that people should have something to do with nature and find an occupation outside any kind of assigned work.



Sketch of a faculty house.

which has a front and rear verandah, a drawing room, two bedrooms, a kitchen, and a study. Kahn decided on simple house plans, their low profile and staggered rhythm, as according to Doshi, "he felt houses should be dumb looking so that the families and children can have their own say".

Between the rows of dormitories and the faculty houses, Kahn had planned for a lake providing for distance with little dimension between the students and teachers so that "both sectors will display their individuality all the more, at the same time not losing their identity."

The architecture manifests Kahn's consistent desire to make an opening and an enclosure in brick so as to distinguish one function from the other, and gives rise to groups of monumental shapes, which reflects "a truly Indian fullness, splendour and excess" ("The world of Louis I. Kahn," *The Kokusai - Kentiku*, XXXIV, I, Jan. 1967 P. 56). More importantly, Kahn decided to use the cheapest and most readily available indigenous materials - bricks - which require little maintenance. Unadorned by plaster and paint and with the use of simple materials -

like Kotah stone slabs for flooring, wooden panels on doors and windows and reinforced concrete slabs, Kahn's design is one of austere dignity.

The architecture embodies sprawling lawns between the rows of faculty houses, evergreen trees on both sides of the main roads and the brick pavements, a children's park and various other facilities and landscapes to add colour and coolness to the hot climate of Ahmedabad.

The design underwent some minor modifications in the process of construction e.g., the idea of the lake was abandoned but the architect's basic concept has remained intact. The campus which according to the architect, Arun Ogale is a 'campus with a difference' embodies Kahn's dream of providing a house of inspiration to learn, to question, to live, and to express.

In an effort to have the views and comments of the students, and residents of the faculty and staff houses on the functional and practical aspects of these buildings, we decided to meet some of them. Following are some of the reactions which we received :



Suresh Ankolekar (FPM - 1982, Faculty IIMA) informs that there are two extremes of opinions regarding the school building and the dorms. While one group of students hold a very positive view, the

others find the buildings too austere and psychologically dull. However, Ankolekar who views the architecture to be distinctly different, finds its simplicity appealing and aesthetic. He feels the simplicity and the vast spaces provided are a fine blending of both the aesthetic and the functional aspects. "The classrooms particularly 1 to 6", according to him, "are very well designed and the layout is ideal for our kind of pedagogy where stress is on interaction and everyone participates in the discussion including the faculty. Though the ventilation could have been better, the lighting and sound absorption are fine. However, the MDC classrooms, which have a different layout, do not have the same appeal." The library, he says is perhaps one of the best in terms of space. The dorms too are spacious with the services ideally located. The proximity of the dorms to the classrooms, unlike other hostels particularly IIT Bombay - helps in the sense, that going to class is not a task to be performed, it is a part of living. All the activities are inter-connected and each activity is a natural extension of the other; there is no compartmentalisation.

The architect, says Ankolekar has been sensitive to the needs of the place. Sitting spaces provided at various points where one could just sit and discuss, justify the Institute's theme of interaction. The LKP was designed as a focal point of activity where students as well as faculty could meet and interact over a cup of tea. It used to be an institution where many a heated discussion took place and differences thrashed out. How-

"Lou wanted to create informal places for learning and interaction"

Mr. Kulbhushan Jain and Mrs. Mina Jain, practising architects, teachers at the School of Architecture, Ahmedabad, and consultants to the National Institute of Design, were Prof. Kahn's students at the University of Pennsylvania, Philadelphia and later worked with him at Ahmedabad. Mrs. Mina Jain also worked on the IIMA site for a few months. Both of them talked to Alumnus about Louis Kahn and the Institute.

What kind of perspective did Louis Kahn have for an educational institution ?

If you examine the final project of IIM or read Louis Kahn's early statements where he talked about a school functioning under a tree, you will notice that his basic idea of a school, was that it could function under a tree where a learned man is surrounded by a group of people who are curious and desirous of learning. Though the final product of IIM, appears to be extremely formal and well structured, if you just break down that formality you will find that he wanted to create a lot of places which would perhaps not be labelled as discreet zones but could have some sense of inspiring people to exchange knowledge. He wanted to make places which are really not labelled or structured in a typical sense. The lobbies, corridors and the spaces between the dormitories are all such spaces which he wanted to make informal places for learning and interaction.

Since you worked with Louis Kahn could you give us some perspective on the kind of person he was to work with?

Well, I think it was fantastic working with Louis Kahn. When you get an opportunity to work with a well known person you are apt to get overwhelmed. But the most wonderful thing about him was that very soon he would make you feel relaxed. We had just finished our Masters from the school and joined his office, but he soon dissolved the gap between a fresh graduate and a well established person and made us feel comfortable. Secondly, there was no strong hierarchy in his office which is prevalent in most of the offices. Most of the time one was working directly with him and he would personally get involved in each and every detail. That was, I think, the most wonderful experience that one did not get lost in an organisation. One could meet him every day. Besides, working with him we learnt the whole idea and process of design development from sketches to final design. In most offices the experience of sketches to final designs is shrunk tremendously because of the vast expenses involved.

In one of their meetings with Louis Kahn, the students had wanted to know about the significance of the "large circles". What were his design concepts on this form?

The question of circular openings in the walls is a question of how you are tackling surfaces and that is purely an architectural attitude. In a conventional building there would be a corridor and it is the edge of the corridor that would become a parapet. So, normally in any dormitory there will be rooms and a corridor. If it is a double loaded corridor with rooms on both sides, this kind of a question will not arise. But if you have rooms on one side and corridor on the other, then the other side of a corridor is always a parapet or a railing and so you end up with a building which has horizontal bands. Kahn did not want these types of bands to be a strong element on the facade. He looked at it from an altogether different angle. This attitude of his is reflected in many of his other buildings as well. He wanted to have the surface there and so he made it solid. In order to generate light and ventilation he punctured the surface. So what happens behind is one thing and what happens to the surface in relation to the outside world is another thing. The idea of making a circle is that when you have this kind of surface and you punch it with a circle you do not lose the surface. If you make a square opening you will have girders and beams. But here you still have a sense of surface and an opening in the surface. He has done the same thing in Dhaka to the Assembly building where these circles are 60 ft. diameter. It is purely an architectural way of handling things.

Local material - bricks - have been used mainly for the construction. How is this functionally relevant ?

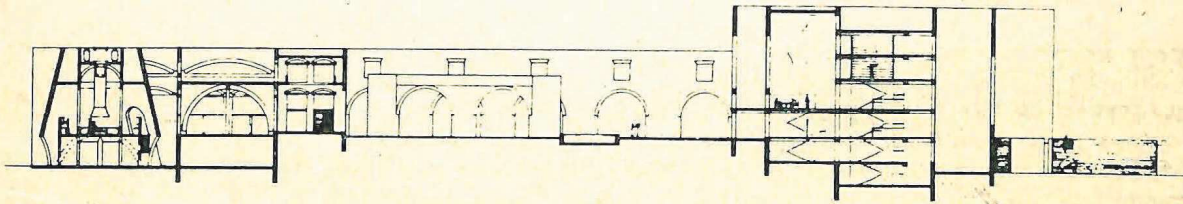
The usage of this material is going to cause a lot of problems in future because the sand content in this brick is very high and it will start disintegrating within a few years. Louis Kahn took it for granted that the quality of the brick would be good. It must not have occurred to him at all that there could be bad quality brick because if you compare this with the brick he had been using in America, then there is absolutely no comparison. Besides, Kahn did not anticipate that the construction could be poor and there would be water penetration into the walls causing the steel to rust, as some of these walls are reinforced steel walls. In our climate these things do not work. Soon the concrete will start chipping and falling, and bricks disintegrating and things will become so difficult that you would not know how to repair the Institute building. In a few years the Institute might have to take a decision to plaster the whole building inside out and the whole brick facade might be lost.

We will end with our final question. If you were Louis Kahn and you were coming back to visit the campus, how would you feel about your dream or vision about this place ?

Well, we will be terribly disappointed to look at the general maintenance. The other day while walking around the place I noticed that in all the lounge areas under the dormitories which open towards the supposed lake, you can see ledges and sills and other things which look extremely dirty. A lot of details are disappointing because they do not work so well. The point is that there is too much dust in this area and this problem has not been tackled fully.

May be, Louis Kahn did not visualise all this and it could be said that, perhaps, he was not advised properly, as in the case of planning. He oriented all these houses because it seems that the wind direction was projected to be a very important aspect of the whole concept, forgetting that it is also a very severe sun direction. I would say that it was, partly, his fault that he did not check all these details properly, and did not make proper efforts in orienting the building site.

It is said that Kahn liked to look at ruins. So, may be, he will like the campus.



IMS. 29 Longitudinal section, eleventh version, showing kitchen to the left and library to the right.

ever, with the shifting of the Retreat, the LKP has lost its significance. Similarly, certain other later additions like the A. C. cooling tower have nullified, to some extent, the original effect and the architect's basic concept.

Commenting on the brick dorms, arches and circles which could be confusing to a newcomer, Ankolekar says, "while these may bewilder a stranger, they do prompt him to explore the place. I, myself, got lost when I was new to the place but the 'getting lost feeling' was interesting and I enjoyed it as a part of looking at the architecture. However, getting lost in the MDC is serious because there is no opening outside and one feels enclosed and cornered."

Regarding landscaping, Ankolekar feels a little more greenery, similar to the faculty residence centre would be welcome, particularly at the entrance.



To Harish Bhat (PGP - 1987) the "first impressions of Louis Kahn's architecture were those of an abundance of geometric shapes and figures, majestic buildings and huge open spaces placed in a maize of red brick - it was confusing, and looked crazy. It took considerable time to master the many paths, staircases and corridors. I remember a particularly daring first expedition to the faculty and staff residences region, and the helpless hour spent attempting to trace one's way back to the dorm.

"When confusion cleared and the campus took shape, two aspects struck me most : first, the red brick looked decidedly unfinished, waiting for its first coat of paint (since then,

many visitors have expressed a similar feeling); second, all buildings were strikingly unsymmetrical, violating my sense of symmetry and balance. Yet, today, these impressions have given way to much appreciation — the unique front of the Vikram Sarabhai Library, flanked by the faculty wings and the classroom wing (as viewed from the Plaza), is among the most impressive pieces of architecture I have seen.

"Classrooms are very functional; the semicircular rows of chairs facing the well are very conducive to student participation and discussion. The small "plaza" near D-2/D-4 serves as an ideal site for in-between-the-classes discussion and a cup of tea. The dorms - yes, they do provide one a good deal of privacy; the rooms are compact and well-ventilated; the blackboards, in keeping with the academic orientation of the campus succeed in bringing a bit of the classroom into the dorms. Yet, the red bricks convey monotony without a break, and it would have been a relief to have had brighter colours keep one company.

"The dorms convey a distinct feeling of extravagance - huge structures, yet housing only 20 to 30 students (perhaps this is a hangover of my days at BITS, Pilani, where a single hostel housed upto 200 students). Amidst such extravagance, an essential feature I felt missing was an auditorium, conspicuous by its absence on campus. A few features of the architecture still continue to puzzle me - for instance, the wide gaps in the walls surrounding the roof terraces in the dorms.

"The impressions Louis Kahn's architecture have left behind in me are : unique, impressive, extravagant yet

functional. Whenever I see red bricks, I am sure to recollect these buildings, and the two years spent in them."



Ms. Padma Srinath (HRD-1987), M. K. Raju Consultants, Madras observes : It must have been a vision. It must have been a dream. A dream for posterity. Louis Kahn created a campus - unique

and magnificently influencing - wherein the dream was to be fulfilled. A dream that in turn created dreams and dreams in the minds of many an aspirant across the length and breadth of this country.

Entering the campus, one experiences a feeling that the buildings are overbearing. This feeling disappears quickly and a curiosity about the buildings is kindled. For a new comer, from thence on, there is a mini quest — why this niche, why that beam. As is true with many other things - either you give up or you find answers by continuing the quest. The journey is wonderful - if you venture.

The class room is an auditorium. To one who lacks the corporate experience of an exquisite board room and does know the segmented dimension of school and college class rooms - concrete cells as they appear - it is an ideal. The semi circular arrangement of chairs, gallery style, the 180 degree movement that the chair permits, the acoustical dimension, ensures the necessary posture for favourable intake.

According to Prof. A. Monappa (Faculty IIMA): "When one considers IIM for its architectural form, symmetry and elegance, it is certainly splendid and a visual treat. The meticulous attention to detail, in certain respects, the angles, the arches, the corridors and the huge circles all stand out. It is, no wonder, then that architects young and old from all over are keen to study Louis Kahn's architectural concepts.

It is when one considers the functional aspects which one has to live with, from day to day, that one is disillusioned - instead of growing on you, it begins to disenchant. The houses could have been planned better to make the best possible use of place, provided more storage space, positioned themselves better for the light and wind. The classrooms could have had better acoustics and lighting. The MDC has just one major classroom. The toilets in the MDC and the houses rarely get any natural light.

Over the years one expected a far more serious attempt at landscaping, clearing of construction rubble and construction sheds and campus cleanliness, which has been neglected. The adaptation of Kahn's sound design concepts and the master plan to the local environment and materials could have been better. Already there are signs of deep cracks, severe wear and tear, flooding of the main access road to the main complex and clouds of dust being churned up all around... especially during the windy seasons when they have free access through the large openings! The faculty and other offices in the Main Complex, with their hollow walls offer little protection from the noise, a prime requisite in an academic environment. The exposed brick walls radiate enormous heat, making the buildings - hot houses.

It is difficult to say, what exactly were the design compromises made by Louis Kahn while finalising his plans during discussion with the IIM's Buildings Committee. Every architect possibly does make some of these adjustments. Subsequently, after his death many projects have come up and one wonders how he would have dealt with them, had he been alive - would he have altered his concepts to cope with changes. For instance, with the crunch for space would the newer dwelling units have gone higher than what they are now?

I suppose, that is the price one has to pay for an alien non resident architect! Nevertheless, the grandeur of the design, when one takes it in, from the Louis Kahn Plaza or the sheer delight of sipping one's cup of tea on one's own little bit of well watered turf in the evening, compensate for the deficiencies.

The library is inspiring and class rooms carefully designed, the layout fascinating.

The crowning glory of the campus is the "Louis Kahn Plaza", named in salutation to the man who designed this campus putting in all the care and consideration that would be possible and are due to our youth, exudes excellence.



Mrs. Anjali Khandwalla, resident of a faculty house is of the view that though the house is well located and spacious with a lovely lawn, it is not very functional. She feels that the design has certain flaws. Due to the faulty wind direction there is not enough breeze. The walls being extra thick absorb heat but do not remit

it back, thereby, making the house very warm during summer. Also, as there is no plaster on the walls heat is not refracted and during monsoons rain hits directly on the bricks which leads to corrosion after a point, making maintenance very difficult. So the open brick structure, she comments, does not suit an extreme climate like ours.

The bathrooms, she points out, have an odd combination of Kotah Stone slabs on the floor and white tiles on the walls. The cleansing agent - acid - used to keep the tiles clean does not suit the Kotah Stone and is harmful to it. Besides, because of hard water with heavy salt deposits, it is not advisable or practical to have Kotah stone in the bathrooms. They are also poorly lit requiring electricity even during daytime and the houses are generally dark.

Attention has not been paid to small details in the design. There is no provision e.g., for a 15 ampere plug and to install an Air Conditioner one has to get additional wiring done.

The landscape is very flat with no character - unlike at ISRO which has a rolling landscape. Not much creative use has been made of the landscaping, says Khandwalla.



G. A. Pillai (Executive Assistant, Alumni Office) who is occupying a type II house also complains about the faulty wind direction and poor cross ventilation.

The kitchen and the toilets do not get sufficient natural light. Though the houses are fairly spacious and aesthetic looking, they could have been planned better, he says. There is a lot of wastage of space and instead more storage facilities could have been provided. While provision has been made for a kitchen garden and a small lawn with every house, adequate water facility has not been provided.