

This presentation is the first in a series of articles devoted to architectural schools in the developing world, their curricula, their professors and student body composition, their physical plants. While MIMAR's Education column will also be open in the future to other types of articles (theoretical, philosophical, student diploma projects of special interest, etc.), the issues raised by professional training in non-Western societies, be they Muslim or not, represent particular ideological choices

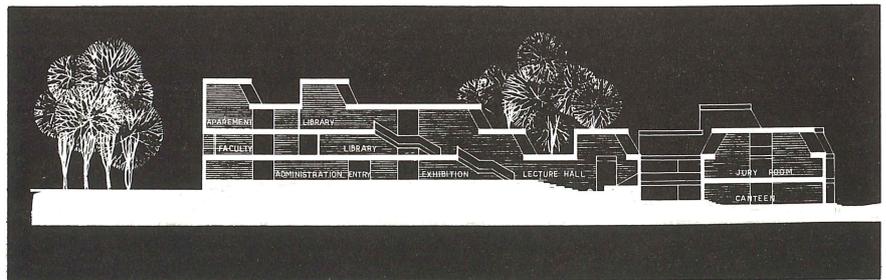
which are worthwhile sharing among the societies concerned. It is our hope that schools will come forward voluntarily without our solicitation, to take the opportunity here afforded students and professors alike to clarify their own approaches, reactions, and ultimate objectives. In future issues of MIMAR, the older, more established schools such as those in Cairo, Istanbul, or Baghdad could be usefully compared with newer faculties such as those in Jeddah, Fez and Dakar. Finally,

as this issue appears at the beginning of most academic years, we wish to announce our desire to publish regularly in MIMAR a list of topics of current diploma research and subjects of recently completed architectural and urban-planning thesis. These can be forwarded to us individually, or as in the case of CEPT (see below), by the school administration.

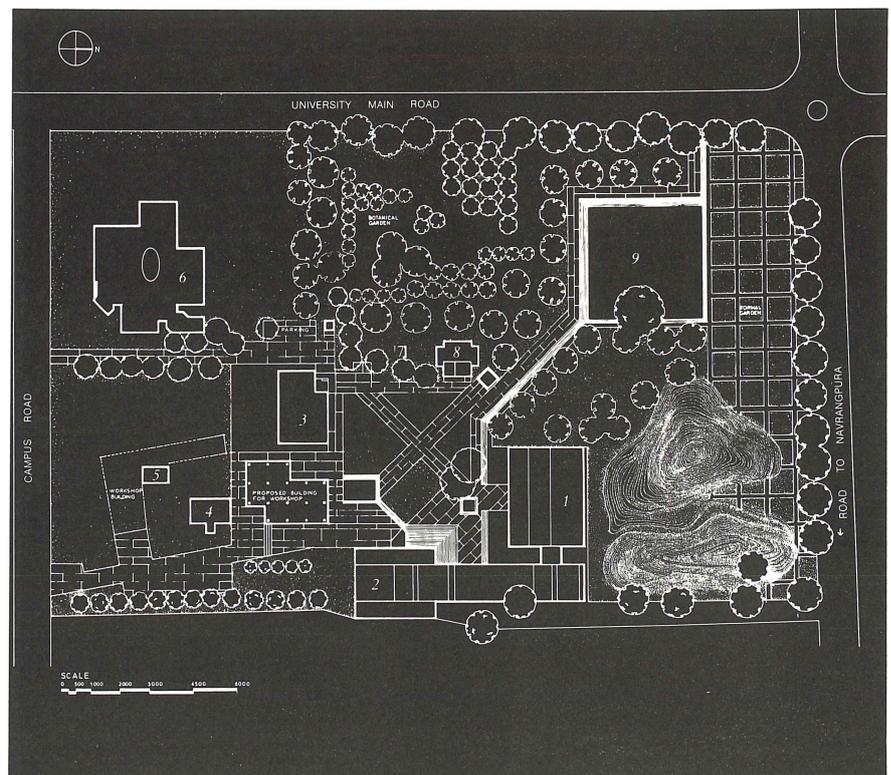
The Editors

CEPT: Centre for Environmental Planning and Technology, Ahmedabad, India

In its present form, the CEPT is composed of three schools: School of Architecture (5-year course), School of Planning (2-year post-graduate course), and the School of Advanced Study in Structural Engineering. A Visual Arts Centre with its own physical plant has recently been opened. The history of the Centre's gradual development since its inception in 1967 is both unique and instructive, illustrating a dynamic which, through the vicissitudes of time and India's recent political and economic history, has never ceased to reassess educational policy by self-criticism and clarify future professional needs. A driving force behind the continued progress of the CEPT, but by no means the only one, has been Balkrishna Doshi, fifty-four year old architect/planner and educator. For ten years Director of the School of Architecture until he became Director of the new School of Planning in 1972, Doshi's vision and devotion has left (and continues to leave) an indelible imprint on CEPT's graduates. He and his office, Vastu Shilpa, designed CEPT's buildings which were constructed between 1967 and the present. Doshi, from whom MIMAR obtained a statement concerning his own approach to design and education, pushed forward the frontiers of professional training by creating in 1976 a Study Cell within the School of Planning, a consultative agency drawing on the faculty and student body



Section through exhibition, jury, looking west.



Site plan



Above: View of north facade, windows to design studio.

Right: Detail of exterior, Visual Arts Centre.

Left: Site plan.

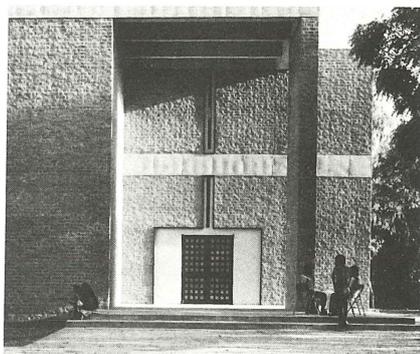
- | | |
|---------------------------|-----------------------------|
| 1. School of Architecture | 5. Dispensary |
| 2. School of Planning | 6. Community Science Centre |
| 3. Visual Arts Centre | 7. Store |
| 4. Workshop | 8. Canteen |
| | 9. Pond |

to ensure participation by CEPT in planning and development activity throughout India.

History and Evolution of CEPT

The Ahmedabad Education Society, which was founded in 1935, a non-profit private body whose governing board is made up of local, regional and national figures, sponsored the creation of the School of Architecture in 1962.

Initially the main objective was to develop a cadre of architects who could take up the task of architecture with competence within the existing context. However, the School's founders were dissatisfied with the contemporary situation. Most architectural practice was concentrated in urban areas. The major occupation of architects was to serve the needs of the developers and to build a few institutional and public build-



ings in isolated areas. A concern for the surrounding environment usually went unexpressed due to a lack of initiative, foresightedness and self-imposed limitations as designers for a particular task.

As a result problems concerning the needs of the community in the urban areas remained unsolved and the effectiveness of the architect as a participating professional member of a community was hardly felt.

In the rural areas, due to a total lack of the architects' participation the problems were usually handled by the others and as a result the environment was evolving without any cohesion.

The cause of this total failure to participate at urban, rural and developmental levels was rooted, it was felt, in the profes-

sional educational system. If education could stimulate an awareness of these failings, at least the graduates would have participated in acts of the community. This was not happening at the time due to India's educational policies, based on unrelated and vague notions of what constituted the task of the architect.

Within four years of its creation, those responsible for the School of Architecture realised that the subject of architecture cannot be taught in isolation, and that for study to be meaningful it needed to be tied to other branches dealing with the technological aspects, for example construction, materials, as well as climate and the social dimensions. It was felt that contractors must be involved so that the implementation part of building could be executed in conformity with the ideas of the architects. A School of Building Construction was proposed in order to bridge a gap between the designs developed by the architects and the involvement of those who execute. An advantage of this linkage would be that the architect could learn about new techniques in actual construction. A laboratory for testing building materials, enabling students in architecture to keep in touch with the new materials was proposed. This idea of a School of Building Science and Technology, as it is now called, is only now coming to fruition and is projected for the near future.

A third idea which was to provide a cornerstone for more diversified training was the establishment of a School of Planning, achieved in 1972 thereby forming the core of the CEPT. The School, financed by the Central Government, the State of Gujarat and the Ahmedabad Education Society, received funds from the Ford Foundation for non-recurring expenditures such as books and new buildings. The curriculum focussed on human settlements as an area of action from the beginning, but was primarily concerned with social and economic development. Unlike schools of Town and Country Planning it is not limited in scope to physical planning and its students are drawn from Economics, Sociology, Geography, Anthropology, diverse fields of Engineering as well as from Architecture.

Curricula

The programme at Ahmedabad's School of Architecture presently lasts for a

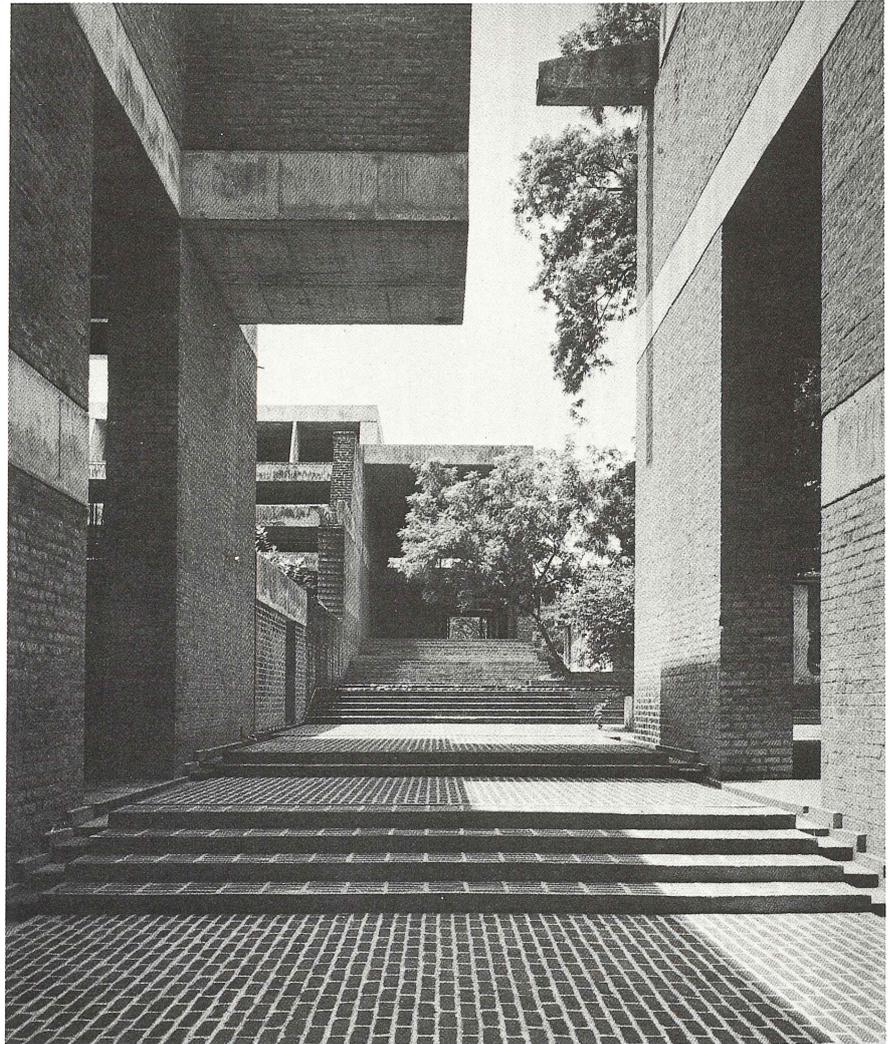
duration of ten semesters, or a total of five academic years, including six months of practical training during the 4th year and six months of thesis in the 5th year. This period is divided into two Stages. Stage 1, which is the first two years, emphasises the learning of basic tools and techniques in Architectural Design. On finishing Stage 1, a student becomes eligible for Stage 2 if he or she wishes to continue study or can seek employment as an architectural assistant. Stage 2 is three years (or six semesters); during which a student is offered the choice of specialising in a preferred area: architectural design, housing, urban and community design, or landscape architecture.

In the design studio, attempt is made to understand the circumstances which provoke the creation of essential elements and then to evolve a correlated pattern for making an object a unified entity with the help of other disciplines. In order to evaluate properly the circumstantial impact within and without, inspiration is drawn from the attitudes rooted in a particular philosophy or "way of life".

History (in all the various disciplines) is discussed and studied in order to understand ways of living throughout the centuries from an evolutionary point of view. Analysis of the environment as a whole, as well as it being a whole composed of many parts, is continuously made to draw meaningful conclusions.

Since different disciplines operate to varying degrees in the design process, case studies formulated as studio problems with differing magnitudes, reveal to students measurable facts more than they do the "unmeasurables", those things spoken of usually as "aesthetic considerations" or "beauty". The attempt to eliminate initially the aesthetic emphasis is born of the conviction that any object which represents the utmost economy in all dimensions yet converts itself into a positive, dynamic entity, already possesses the so-called aesthetic quality. The measurable areas occupy a major part of design and therefore precise information on the task that an object should perform is demanded of students in studio work.

However, in order to develop a philosophical attitude amongst the students, it is planned that problems which demand greater philosophical understanding should be



tackled at senior levels, while problems which teach discipline in techniques of handling tools and simpler relationships between elements should be taught in the earlier years of the course.

The course curriculum in the two-year post graduate programme of the School of Planning has two broad areas within it: the information and the application of theories, concepts, case studies; tools and techniques in various disciplines relevant to planning are offered. The application of these in a real problem area in the country is attempted in the planning laboratory which undertakes actual projects. A hierarchy of projects has been introduced right from the very incep-

Above: The passageway linking the schools, seen from the north side.

Right: A design studio.

tion wherein the understanding of the settlement components is emphasised first, moving gradually into integrated community planning in rural and urban areas, then to area planning and finally to regional planning. A Special Project programme allows students at the end of the regular teaching semester before graduation to take up individually a research topic during fifteen weeks.

Study Cell

It was realised that to enrich significantly



the academic programmes' content in the Schools under the CEPT, inputs and feedbacks from real life problems and the efforts to solve them are very essential. The faculty members offering various courses to the students, it was felt, would be in a better position to substantiate conceptual and theoretical bases relating to planning process with the help of the experiences in reality. One other important objective was to raise financial resources to enable CEPT to develop and diversify activities. The Study Cell intended to attract governmental planning and development agencies for the purpose of utilising the expertise available at CEPT.

Completed projects include, for example, an Integrated Environmental Improvement Plan for Tribal Talukas in the Panchmahals District, Gujarat State (1977-78). The planned solutions here identified an optimum pattern of land utilisation at settlement levels, keeping in view the socio-cultural and economic aspirations of the tribal population, with emphasis on productive employment generation. Other projects include Block Level Planning in Kutch and Amreli, Modernisation of Existing Medium Irrigation Projects in Gujarat, and a film on the city of Jaisalmer, Its Architecture and Environment, sponsored by UNESCO.

My Approach To Design: A Message for Students

by B.V. Doshi

Educational background affects one's interpretation of his environment. It affects the individual's performances and decision-making process. When one is educated abroad, as I was, and has to practice in his own country — which has a long tradition and diversified needs — he is bound to be confronted with new situations and challenges.

I learnt from Le Corbusier to observe and react to climate, to tradition, to function, to structure, to economy and to the landscape around me. To an extent, I also understood how to build buildings and create spaces and forms. However, I have in the last two decades, gradually discovered that the buildings that I have designed somehow have a foreign look. They appear not to have their roots in the soil. With the experience of my work over the years and observation, I am trying to understand a little more about my people, their tradition and social customs and the philosophy of life.

Study what's already yours

The best way to know one's own culture is to study its existing settlements, their way of life, crafts and the arts. These give insights into many problems. One observes the heat and cold, the sunshine and the moonlight, the starry heavens above, and the directions of the wind. All those things that mould the life of the people.

One understands the subtle significance of the porches, verandahs, staircases, open spaces, balconies, terraces, carvings etc., which constitute the form and the character of their indigenous architecture. They show the relations of classes and communities in their depth, their mutual actions and reactions. In short the whole web of life. One understands finally the connections with general economy and the use of energy.

The study of existing buildings from hutments to mansions, from a workman's house to a market place, one sees the technical insight of the old in keeping the

buildings cool, getting cross ventilation, providing direct and indirect natural light and protection from say the sun, the rain or the dust. Economy, of course, played an important role and affected the major aspects of design such as choice of materials, method of construction and the ultimate expression. In short one often found the simplest and direct ways of building a total eco-system that gave architecture its due place or reverence.

To this, I often felt that we can perhaps add new ideas based on new technology, new spatial understanding, perhaps a new function and a new aesthetic. For example, we could add an efficient lighting system within to make the building more suitable for frequent use in different seasons and at different times. Provide varieties of space

“... institutions are the primary elements of an environment. When one is to design ... it is necessary as a first act to study the interaction between the individual and the community, and to provide for spaces and the institutions of the community.”

for specific or general functions, or even make the building an extension of the outside space. We can try and reorganise functional and service elements within and outside the house, to make them more efficient, save energy and even give it a new orientation.

Buildings that survive in time have more than material utility. They indicate several levels of associations and meanings compared with present-day functional structures, with their craving for modernity.

Besides, these new buildings often do not satisfy the expectations of the users; even after completion the users change parts of the buildings as they do not feel at home with, either the structures or the spaces or the form. Some of the buildings go through innumerable changes. It is then that the

question is asked: what is appropriate? What kind of buildings should we build? At this juncture one begins to feel the limitations of one's education and has to learn many new ways of doing things.

Buildings that grow

Buildings in India must provide the potential for growth because of fluctuating economical situations and changing social conditions. For example, very often projects start with large requirements but due to economic constraints or changes in the situation, they have to be built partially, or sometimes doubled during construction. I have observed that the concept of growth leads to better efficiency and economy. Another important criteria is the provision for changes in the design or modifications of functions. This is required due to either up-grading or downgrading of the functional conditions, be it housing, offices or public buildings.

However, to make the growth concept acceptable, it is necessary to know the needs of a society; without these it is difficult to create a suitable environment and allow for future growth or change.

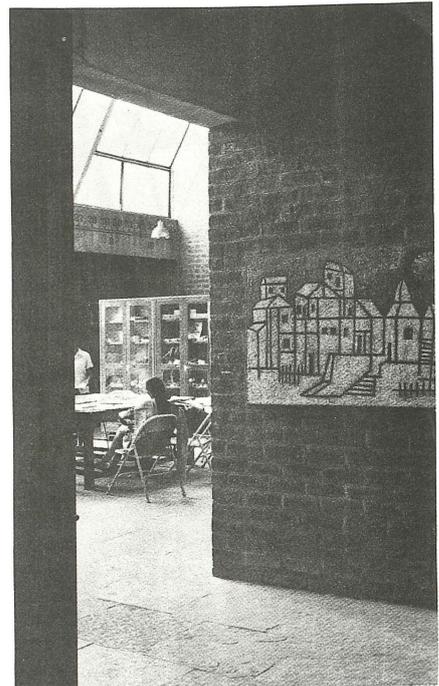
This leads me to say that all design considerations should be based on community considerations rather than individual ones.

In the process of creating built environments there are not only measurables but also immeasurables which affect design. Here the tradition of a culture becomes very important, without whose support the buildings do not become appropriate.

Therefore, unless the socio-cultural-tradition is understood it is difficult to locate or design streets or places or extensions to buildings or the buildings themselves. The forms of the built environment cannot become a fabric and cannot be used if designed otherwise. It is necessary to speak about cultural environment rather than a building or a technology or an economy. A house in Ahmedabad or in Jaisalmer or in Udaipur has centuries of tradition behind it. This tradition has given the house or its form many factors which tie the generations together.

Institutions are the key element

One notices within communities that there have always been several types of institutions which have varying permanency in relation to the scale of their operations.

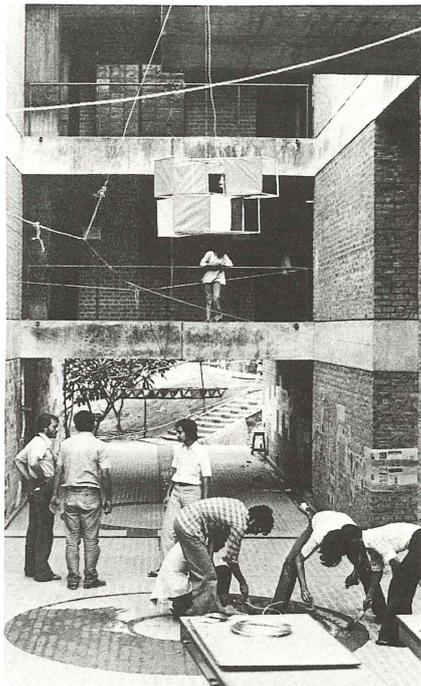


The library.

For example, institutions arising in a community are more permanent than those of the cluster and those of the cluster are more important than those of the family and those of the family are more important than the individual. It is therefore, essential to study the institutions and their hierarchies which operate and generate various activities and establish cluster form. Design cannot be an external physical component.

I believe that the institutions are the primary elements of an environment. When one is to design either a building or a settlement, it is necessary as a first act to study the interaction between the individual and the community, and to provide for community spaces and the institutions of the community.

Let me take an example of social institutions, a well and a water tap. To fetch water from a well involves a lot of labour, while in a tap water is easily accessible. But in the case of the latter, the wastage of water is much more than that in the case of a well. In consequence it allows mosquitoes to breed and make the place dirty, which can only be remedied by subsequently installing in a drainage system. In the case of the



Students developing school environment.

village well as it involves physical labour there will be little scope for wastage of water. But what is important in the well in addition is of a meeting place for women. In fact it is a sort of club for them in the morning and evening i.e, it becomes a social institution.

Or take a temple in a village or town. When a temple is established it brings people from all walks of life together for workshop and social diversions. Here you have music and dance and many elaborate ceremonial rituals. Here you have folk plays in honour of the deity. Thus a temple becomes a place for spiritual inspiration and aesthetic satisfaction. In addition the deity often becomes a guide, a friend and a philosopher to the ordinary folk. It is this type of socio-religious tradition in India that has given colour to Indian culture.

From these two simple examples and many others, one can see how total human energy was expressed naturally and spiritually and gave a unique awareness to the people.

Through this awareness man not only sees his place in the world as worker but as an enjoyer of life.

List of Diploma Topics, School of Architecture, Ahmedabad, 1980-81

The names of the students and their respective diploma topics are listed below.

Desai Punita

A Study of Tribal Settlement and Shelters — In Change

Shah Snehal C

Migrant Squatters and its Quality in Urban Environment

Bhansali Sunil H

Upgrading Squatter Settlements: Case Study — Bombay

Gandevikar Y.V

Housing for Middle Income Group (Comparative Study of working of Different Agencies)

Anjali Balachandran

An Approach to Critical Architectural Appreciation

Dave Bharat K

Ideological Roots of Movement in Architecture

Desai Mahesh T

Courtyard as an Element of Built Form: Case Study of Bundi

Patel Prema K

A Study of Settlements, Houses of the Mer Community in Past and Present Context

Shetty Rajmohan

An Inquiry into the Aspects of Rationale in Architecture, substantiated with an Analysis of the works of Alvar Aalto

Mehta Barjor E

Urban Housing: Objective Realities for the Poor

Mehta Hemant

Recreational Spaces — A Case Study of Baroda City

Pranod Balakrishna

Social Aspects of Mass Housing

Desai Janak

Development in Structural Spanning

Suthar Navin K

Townscape Study of Religious Towns of Gujarat (Visual Aspects)

Vinod Kumar

Ideals and Education in Architecture

Joshi Sharadbala B

Recreational Urban Open Spaces

List of Thesis Topics School of Planning — 1977-80

The names of the students and their respective thesis topics are listed below.

Balachandran B N

Rural Energy Systems, Problems and Prospects

Chavda Rajnikant

Housing Situation in Rural Gujarat

Dhanabal V

Block Level Planning — Integrated Rural Development

Gandhi Hiren

Habitat Mobility for the Urban Poor

Nanda Kumar

Morphology of Indian Cities

Sharma Loknath

Health Care Services in: A Tribal Taluka: An Evaluation

Sharma S Narayan

Parking Requirements for different Land-uses in Ahmedabad City

Taj S M

Poverty in Plenty — A Case Study of West Godavari District

Thayalan K

Agricultural Growth Strategy: A Case Study of Surendranagar District

A.P.R. Vittal Babu

Aerial Photography and Urban Planning

Arun Chaturvedi

Udaipur City — Built-up area

Ravindra Joshi

Tourism Planning for Ukai

Kaushik S Mehta

Small Scale Industry in Rajkot

Padmesh R

Lowry Model

Bharat Parekh

Rural Housing

Pragnesh Parikh

Perception of Physical Environment

Rashmi Vasisth

Non-Formal Education and T.V.

Sivanandam M

Education and Scheduled Tribe

Sudhakar Reddy

Fiscal Anatomy for Hyderabad