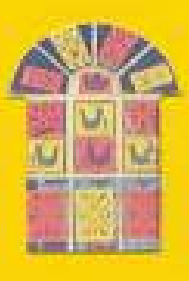
MIMAR
ARCHITECTURE IN DEVELOPMENT



MIMAR 30 · December 1988

Office Buildings
Romi Khosla of India
Results of MIMAR Competition V

Romi Khosla

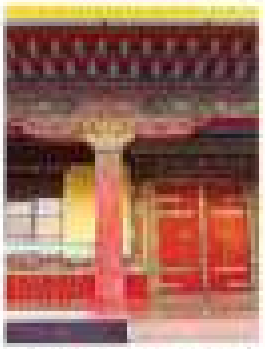
Indian architect Romi Khosla, born in 1947 in Udaipur, first studied economics at Cambridge University before deciding to go into architecture. He obtained his degree from the Architectural Association School in London and returned to India to set up his own practice in 1978. Called The Cell & (The Centre for Rural and Urban Planning), the office of Khosla and his partners Arvindam Chaplot and Anil K. Jain has undertaken a wide variety of small to the massive and buildings (housing in the MEGHA Pratik, Apart from his architectural achievements as a designer, he is a frequent writer on low and passive architecture, and editor of the quarterly publication of the Journal of Rural and Urban, and has been one of ARCHIDART's correspondents since it was founded in 1981.

— Editor.

We are living in complex times which are highly complex, culturally-speaking, where exposure to pluralistic cultures and languages abound. Each is a unique entity. On the home architect often perceives his world across the varied cultural spectrum. The use of contemporary in this part of the world is essentially the juggernaut that tramples over regional cultures. An architect therefore has to be very careful not to allow his work to be associated with any pre-packaged stylistic connotations of these. Rather he has to integrate himself to the smallest sense of his world in order to absorb the cultural specific reality around him, produce a building, and then the reverse.

There is an analogy to what I was thinking of as a story told by the late former Moscow resident Andrei Tarkovsky. It relates to Japanese painters, until one to perfection who wishes to sum up the Asian reality: the painter used to paint in a certain manner over the a period of time in order to create a high level of aesthetic and stylistic achievement. Then he would vanish and reappear in another court with a different name and would paint in a totally different style. For in this country the true spirit of the East, where the material development of reality is given a greater importance than the determinism of external stylistic constituency.

In our own work, experiences are being brought about through an evolving process of world wide exposure and travel again, in committing the discussion of our work, concrete iconography and even those passive phenomena, we are face to much backwards and forwards through history to show signs in the mainstream. Seemingly contrary images are transformed into a whole. One should be fearless, as regards to one's quest from the safer pre-urban environment of the Indus valley right up to the space age colonies



Detail of the entry to the Chinese Classical Library building, Ekaterinburg. This was the first building done by Khosla's office and is notable

as cities. There is indeed no limit. There is only a consistent persistence that theoretically advocates an architecture of emergence plus for understanding world wide experience and region. The basis of synthesizing and transforming the building is simply that one must be conscious about the environment that the building should evolve. The decision about the choice of what constitutes a building should evolve in as pure objectivity, but also in a large extent subjective in structure.

For example, in some projects, one may make a consciously objective decision to evolve a very specific image. We attempted this in our buildings for the Second Conference Complex in Chandigarh for the Department of Electronics which is a thousand feet. The buildings house the data communication electronic chips factory in India, and contain an immovable computer which are stacked on the ground-floor plinth. One object was abandoned to permit about to the images of New York ships and cross bridges, made

Library in the town in the Upper Volga, Ekaterinburg (Sverdlovsk).

from building wrapped around an open space that was covered in a great height and used a protected and secure playing space for the children, many of whom have to stay themselves along the floor entrance from place to place. The greatest difficulty in viewing the building was to give a double image. One image was from the outside, a public image that had very little to do with the requirements of the children, and the second was the inside where the children would experience the building themselves.

The lower part of the building is therefore full of images and associations for children. Two devices are used. The first is the inserting of corners and bits of forms into shapes and forms which are not only functional and safe, but in specific places — such as the ramp and related circular windows — reminiscent of the process of birth. The ramp itself, without windows and installed as part, a density linked to the subconscious experience of emerging at birth. The second is the playing of a magical or legendary tale in each school environment throughout the building. The elements in the entrance of which are presented on the entrance façade entered their story within the building so that colonnade are transformed into characters, the ramp into a journey, and the roof into a sky. By the placing of the symbolic story in specific within the building there is a conscious effort to take the use of iconography to ordinary use to a point where direct association is possible, so that the building evokes images and associations but also within the mind into a magical realm. It is, of course, primarily a building for children, so the magical aspect is really meant for them.

The second area is one of the most innovative of the building elements, while preserving their associations. If elements of ordinariness are taken from a specific context and are transformed but kept in their familiar form, then one gets other architecture.

In our projects we attempted to explore the possibilities of transformation as manifested as well as in architectural elements. This was in the Administrative Headquarters for electronics in Bangalore, related to built entirely out of precast concrete. In one instance, concrete columns were used to create a specific image out of the concrete. Concrete by itself is rather a dull material that sometimes can, both and mass very safe in the buildings by Le Corbusier had precast 'mullions' of

A detail of the entry to the Chinese Classical Library building, Ekaterinburg. This was the first building done by Khosla's office and is notable

Above: Lateral screening for the office of Khosla Mehta, Ahmedabad, by the Abhy Cross Arch and

Below: Model of The Lotus Temple for the Indian Capital, Photograph Courtesy of the Bahai organization of India.

Illustrations by Romi Khosla. All drawings and photographs courtesy of the architect unless otherwise indicated.

The Indian Institute of Regional Development Studies, Kottayam

Revati Kikkeri

Project Data

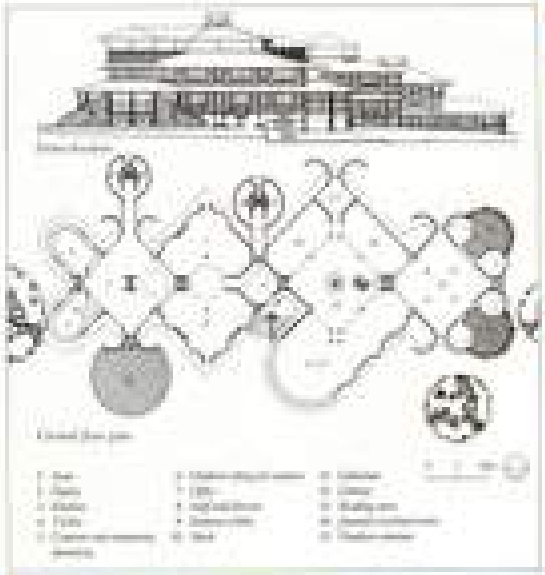
Location: Kottayam, Kerala State, South India
Architect: Revati Kikkeri, Laurie Baker
Consultants:
- Structure: S.K. Balasundaram
- Services: The Client

Contractor: Local construction company (building)
Archaeologist: commissioned by architect Laurie Baker
Construction period: 1985 (still continuing)

Kerala, the southern most tip of the Indian subcontinent that protrudes out into the Indian Ocean, has a very specific architectural style. This style has been formed not only by the environment of its rainfall but also by its cultural complexities. This complexity is clearly reflected in the architecture for the Regional Institute of Regional Studies, where varied requirements from those for institutional spaces to personal relaxation style spaces co-habit. Contained within an articulated shell, there is within a two floor of space of the different parts of the building where the definition of specific rooms has been minimised. The whole internal part of the ground floor of the building is one continuous space which proceeds along the central spine. The interlocking spaces is intended to create a continuum of transient urban centres for different purposes in the same level because the functions is evolving and growing in unpredictable ways, with staff increasing or decreasing overnight. The geometrically different parts of the plan, based on squares and circles, are juxtaposed with each other, overlaps or intermingle with each other. Floor, ceiling and spaces are joined to form a continuous pattern.

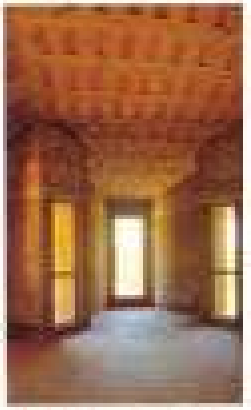
The plan shows the central concourse "corridor" that runs through organizing staged rooms. There are no doors to the separate rooms. The entrance doors being one into the centre of the "open air" space. The Director Dr. Mathew Kurian, a liberal economist, has clearly requested that the building should "emerge as urban Marxist ideals while preserving the environmental quality of Kerala". Random spaces are one such symbolical solution of the building. Architectural references were not defined a priori but established as a space between communities. Of course, such an open plan concept is not overtly ideological in a coastal state. It can be read simply as an open plan office of the kind that American companies have experimented with for quite some time. There is no doubt that an open plan building needs to be less hierarchical and more egalitarian. It could be that authoritarians if there is an authoritarian in the way the building is run. On the other hand, it could also be seen as some sophistication of the base use in the head of the work space and workers over any means. However, that is a research question, and a controversial conceptual, conceptually, it was designed as open concourse to unclear institutes in India, where rooms, offices and private rooms within a building tend to complete the mode of research activities.

The function that are here exactly leads to complete the building. So, that is essentially a low-cost structure that has continuous under construction over the last 5 years. The number of expected rooms were used inside the walls, are not standard to keep this cost. At the technical level, the architects had to rely on craftsmen who had been trained by Laurie Baker one of the most innovative architects in India. His statement in the method of using modified vaulted arch techniques are solid. The substantial savings in steel and concrete is very significant. So the business expands as more and more it will continue to build.



Ground floor plan

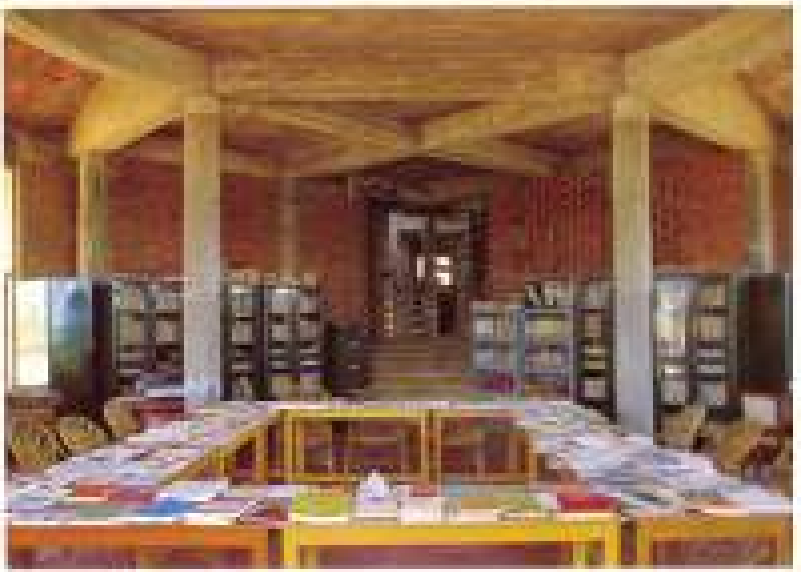
1. Seminar
2. Library
3. Director
4. Faculty
5. Office
6. Common room and conference
7. Dining hall
8. Kitchen
9. Guest
10. Corridor
11. Courtyard
12. Reading area
13. Research assistant/secretary
14. Faculty member



Above: Open building concourse from the reading area into the Director's and staff offices. The library is in the distance, separated by double-storey entrance space.

Photographs by: Manu Mathewson

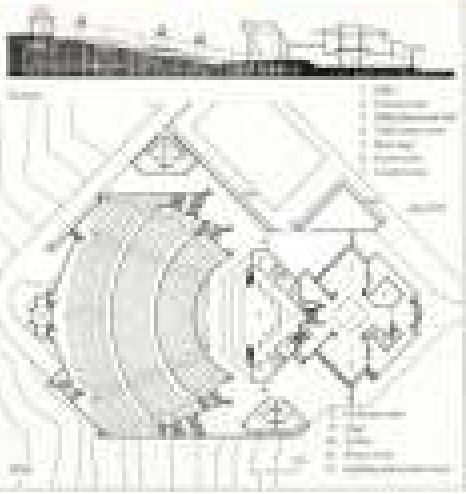
Right: A general view of the building set in a hilly up-to-level surroundings.
Above: Two floors constructed over the main building where the main concourse and lecture



Open Air Theatre and Shopping Centre, Karwar

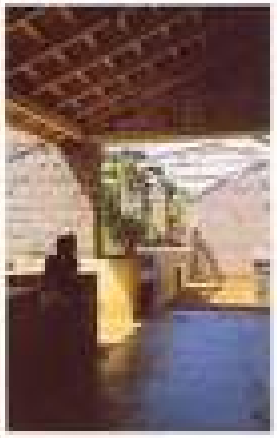
Project Data

Location: Karwar, Karnataka State, India
Architects: Rahul Mehrotra, Narendra Doshi, Amit Jain
Consultants:
Structure: Ashwin Desai, Mumbai (B) Ltd
Contractor/supervision: Mistry's



Shopping Centre

Photographs by Hans Rahman



On left: Concrete screen of the upper roof running west to the open air theatre.
Above: Stairs leading to the rooftop with a tall, slanted passage window composed of thin sheet glass panels.

United Breweries Corporate Headquarters, Bangalore

Bruce Rhodes

Project Data

Location: Bangalore, Karnataka State
Architects: Bruce Rhodes, Founder Director
Vineet Kamath, Senior Project Architect
Consultants:
Structure: A.R. Physical Science (P) Ltd.
Services: Tarapur (P) Ltd.
Contractor: Confidential
Construction period: 18 months

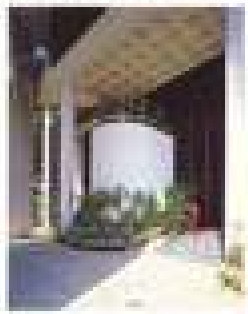
This is a building for a corporate head office housing the various administrative functions of the company. The site covers an about half an acre at the southwestern corner of the 'Brewerydale' premises on Union Street, Bangalore.

A recent concern of environmental control has been concerned for the building, which takes the form of an enclosed central shell (an octagonal solarium with a flower light) which is wrapped around the peripheral building that subsumed from it by a gap of about 10 metres to create space between the inner building and the outer skin. This provides for a system of solar control whereby the outer perimeter openings to north provide ventilation, and by controlling the direction of opening light is admitted only from the desirable orientations. Also, the large roof projections at third and fourth floor levels do allow one perform the same function at smaller windows at lower floor. They provide an effective cover against rain penetration and allow windows to be kept open for ventilation during the monsoon months. In the hot summer months, heat is transferred by conduction and radiation to the stainless space which is open to an enclosed lobby (over the entire ocean and the main building). A further cooling effect is achieved as the hot, dry months by evaporation from the plants grown in the space between the outer curtain and the building skin.

The internal and the light control prevent the glazing of almost the whole perimeter of the main building skin, thus providing a large degree of flexibility in the internal planning.

The main structure is a series of 'raft plate' concrete cantilever slabs resting on peripheral columns. The cable grid of 1.5 metres provides a convenient internal planning module. The service core on the north accommodates most walls to main wind forces on the building. The main access is a cantilevered housing structure, tied back to the main structure at various points. All services have been centralised in a transport service core which contains the lift, the main staircase and the toilets. Vertical shafts in the service core carry all the sanitary and water supply pipes as well as the main electric supply lines. A separate fire-escape staircase has been located at the other end of the building which was designed as a fire-resistant structure initially, but could eventually grow to eight storeys to accommodate future needs.

Photographs by Gian Baltazar



Above: One of the roof deck de-centres.
Right: View of one of the lateral facades, showing the screening effect produced by the concrete louvers.
Far right: Entrance for visitors and clients on entrance of the building.
Preceding page: Main facade, with the five storey cantilevered section over the main part of the building.

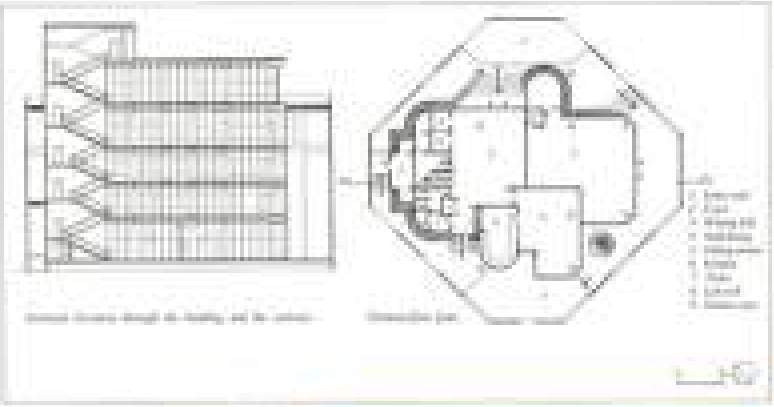
Springdales School, New Delhi

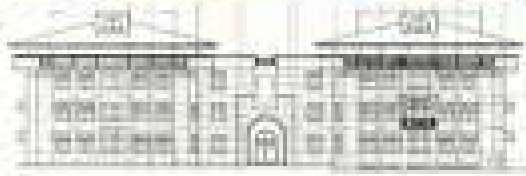
Project Data

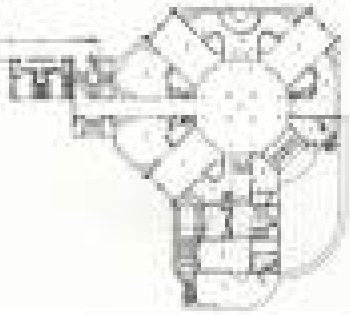
Location: New Delhi
Architect: Kuldip Singh, Chetna Kapur
Consultants:
Structure: Sood Arora, Dhawan & Gupta
Plumbing: P.N. Gupta
Contractor:
M/s. Mittal & Co. Corporation
Patron: Springdales School
Commissioned/Completed: 1984/end of construction

Springdales School is a privately run school that has opened shop at a branch of the main school. The planning of this project was done divided into three stages with the Middle School coming up first followed by the Nursery, and finally being completed with the construction of the High School. What is seen here is the Middle School and part of the Nursery School. Funding for the construction has been done entirely by the School, which has meant an almost continuous process of construction that periodically ran consecutively on and when the funds became available.

The central concern was to make the building not seem like an institutional institution, but one that would be agreeable and to an assembly of users. The organic, multi and directional movement of the site is easily extended to create a larger living rather than an institutional building.







The Pathak Farms, New Delhi

Project Data

Location: New Delhi (suburbs)
Scheme: Farm Schools, Office, Res., Hotel, Depot, Theatre & Sports
Contractor: Varied Schemes, Some Schools
Consultants:
Structure: [illegible]
Plumbing: [illegible]
Air Conditioning: Thermal Comfort
Contractors:
CPWD & Corporation
Plumbing: Executive
Electrical: Some Electrical
Air Conditioning: Blue Star
Commissioning period: 1980-1983

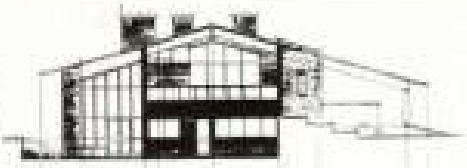
The owners wished to construct two houses on a common farm outside of Delhi. They were concerned to maximise privacy, good cross-ventilation, convenient communal business meetings could be held. The owners live most of the time in Orissa and only make short visits to their Delhi farm. Each of the houses is very different from the others. The owner's personal dwelling is the Indian House, where he and his wife stay. It is essentially a single-storeyed house with large entertainment spaces that interconnect with one another under a single roof, which also extends outwards to become the car porch. Thereby forms a the other one, with a courtyard plan and independent bedrooms for guests. Important business meetings, other member consultants coming from abroad, and the Mirabilis house has been designed to give each bedroom an en-

side terrace with complete privacy. Both of the houses are partially sunk into the ground, because land becomes grown a basement but also keep the height of the building above the ground. Large areas of outdoor gardens have therefore been landscaped around the house so that the basement is not a danger. Both plans are really associated with basement as lacks. Plantings were carefully selected also largely dependent on decorating reasons, use of plant material and the height of the shrubs. Most of the land is occupied by young banyan trees and the rest of it has been made into rolling lawns. The stone used for the exterior of the building is known as "Dholpur" and has been used traditionally for the Rajputs, and also by Lutyens in his buildings.

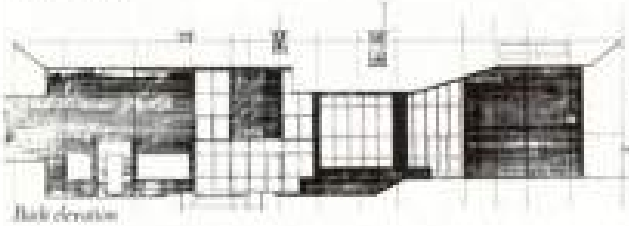
Photographs by Dave Robertson

Above: Model School and Auditorium
Below: Hotel and entertainment hall in Model School

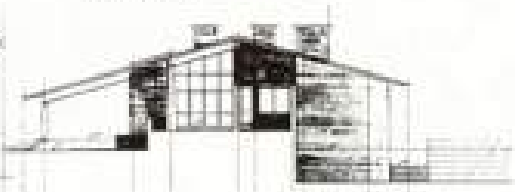
Front elevation



Side elevation



Back elevation



Side elevation

Ground floor plan

1. Portico
2. Entrance lobby
3. Living room (double ht.)
4. Study
5. Verandah
6. Bedroom
7. Toilet
8. Dressing room
9. Guest house
10. Terrace
11. Dining room
12. Kitchen
13. Bar
14. Swimming pool
15. Changing room
16. A/C plant room

Semi-Conductor Complex, Mohali

Romi Khosla

Project Data

Location: Mohali, Chandigarh, Punjab State, Northern India
Architects: Romi Khosla, Narendra Dengle, Anil Jain, Vinita Kapur, Sunil Kumar
Consultants:
Structure: Ashok Pawate, Semac (P) Ltd
Electrical & Airconditioning: Manek Dastur
Plumbing: Semac (P) Ltd
Contractors: R.P. Sethi & Co.; Builders Combine; Amin Electricals; Ferro and Steelcon
Construction period: 1983-84
Land Area: 51 acres
Built Surface: 7,400 square metres (80,000 square feet)

This factory and office complex is located in Mohali 8 kilometres from Chandigarh, the new capital of the Punjab designed by Le Corbusier in the 1950's. It is a public sector company, primarily engaged in research and development, conception and production of large-scale integrated units.

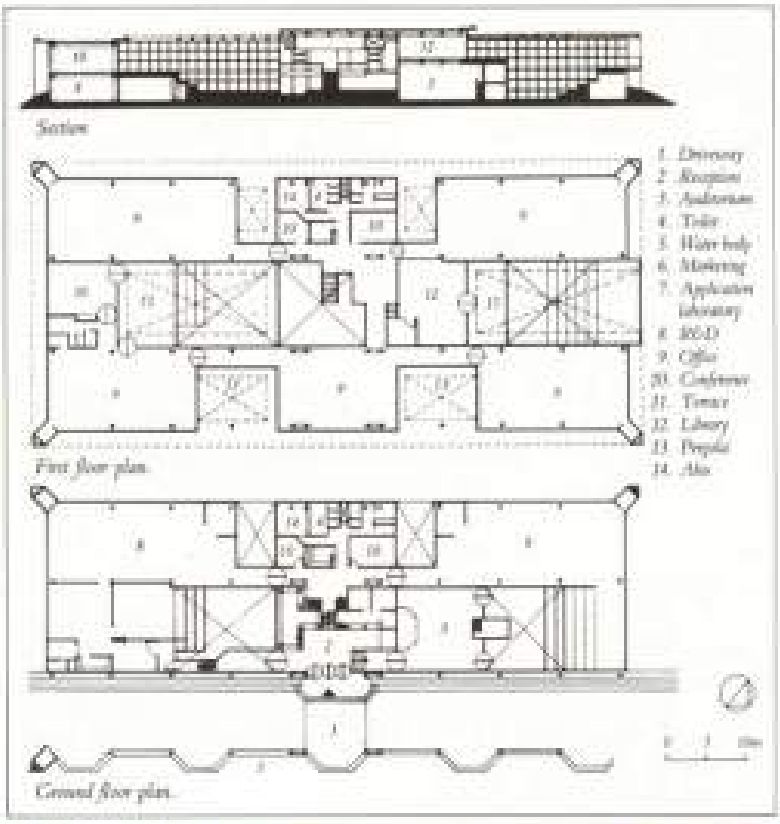
The construction programme commenced with under-ream piles and the whole of the process area was made in structural steel above the pile caps. The columns and N-girders and trusses were erected simultaneously, bay by bay, and once the entire hall was erected, the roof was laid. The roof consists of steel decking, light-weight concrete and a thin layer of nominally reinforced concrete. Normal seven course waterproofing was carried out on top of the cambered slab. The construction took less than 6 months.

The design of the complex envisaged protection from heat, dust, humidity, noise and vibrations. All sides of the process area therefore had to have a series of protective layers. Underneath there is soling, sand fill and polythene sheeting followed by an RC slab on ground beams, finished with seamless PVC flooring. The sides of the building have an aluminium slatted water curtain followed by a brick wall and then a service corridor. All the internal walls are made of stud and skin partition using a laminated board for the skin. The core of the process areas, such as the yellow rooms and mask fabrication, are totally isolated with 3 micron dust cleanliness. Micro-technology is too new a discipline to dictate hard and fast design principles. Designs for services are particularly taxing since they account for more than 50 per cent of the budget.

To avoid planning problems and innumerable changes in design and equipment layout, a special 'design cell' was opened in a secluded place. Architects, engineers and the owners worked together, 'brain-storming' often until the early hours of the morning. In a short span of 16 weeks, almost all the working drawings were prepared and issued to site. The planning of the operation was meticulously controlled; and there were hardly any changes once the drawings were completed.

Below: View of the research and administrative building of the manufacturing complex.
Bottom: Process area and canteen as seen across the pools from the research and administrative building

Above: Driveway and approach to the research building.
Below: Ground floor in an internal courtyard of the research building; looking towards the process area.



Romi Khosla

Tribal Children's Hostel, Kuju

Project Data

Client: Holy Cross Institute
Location: Kuju, Bihar State, Central India
Architects: Romi Khosla, Narendra Dengle, Anil Jain
Consultants: Ashok Poole, Sensa (P) Ltd.
Contractor: Constructed by craftsmen employed directly by the client.
Construction period: 1979-1981

The present proposal for the Marsal Mandir Complex is an attempt to create a village atmosphere in an organised manner. In fact the hostels are visualised as two small children's villages, which are economical on space standards, simple buildings planned around open courts.

The children's villages have dormitories for 20 students each. The students have been provided with low shelves and windows related to their height. The dorms are ventilated also through the roof to keep them dry and clean. Toilets are shared by two dorms and are also ventilated through the roof in addition to the normal windows.

The dormitories create a village which has a through access and links which are achieved by means of verandahs with sloping roofs. At the head of the cluster of the dorms is located the superintendant's quarter for those overseeing the children's village.

All the important buildings are linked by an open-to-sky paved pathway, creating smaller spaces that look onto the central large open spaces. The landscaping suggested is to break the heavy wind, give shade and create a lively atmosphere for the growth of the tribal children.

Above: Exterior view of a detail of the hostel. Below: General view of the hostel from the entrance.