

# ARCHITECTURE + DESIGN

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**BUILDING FOR  
HEALTH**

Indian Institute of  
Health Management  
Research

Sitaram Bhartiya  
Institute for Science  
and Research

**NAGA SHELTERS**

# Indian Institute of Health Management Research

Jaipur

Architect **Ashok B Lall**

**L**ocated near the airport at Sanganer on the outer reaches of Jaipur, this Institute, the only one of its kind in India, is devoted to research and training in the management of health systems. The fact that the Indian Institute of Health Management Research (IIHMR) project was the winning design entry of a closed competition held in 1988, with a report setting out design intentions, and that it has subsequently been built (Phase I; 1989-91) allows us to look a little beyond a mere description of the built project. What becomes evident is the complexity of the transactions between conceptual thought and the ground level reality of building today.

In selecting this as the winning entry, the jury, including eminent architect Habib Rahman, did not report exactly what the merits of the scheme were except for broad approval of the strategies adopted by the design as apparent in the model and drawings. Later, the clients revised the brief completely but expected the architects to retain those elements of the design that gave it its essential character. In a series of meetings with them a certain consensus as to what these might be emerged. The first was the relationship of the buildings to the land. Briefly, the natural topography of the land provided the rationale for the site-planning of the institutional and residential components. The



Photographs: Ram Rahman

seasonal drainage channel was visualized as a 'leisure valley'. Courtyards and terraces were to ride the slopes and retain continuity with the land beyond the site. Low-lying land being less water-starved was to become parkland and the residential and institutional buildings placed across it. The 'leisure valley' was thought of as the primary focus for informal interaction for the entire community with stepped *ghats*, shade, and flowers. The 'valley' between the two sets of buildings is crossed by a bridge at the centre of the site, while a causeway at the eastern edge of the valley acts as a dam to impound rain water. This helps in recharging the water-table apart from adding to the environmental

character of the campus.

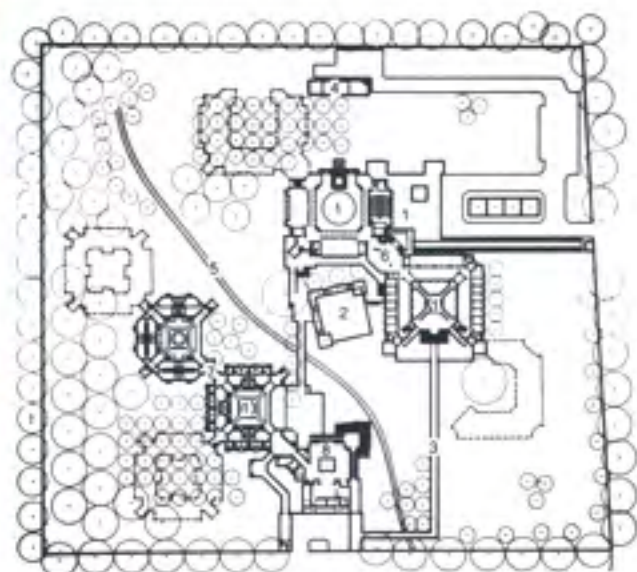
A second characteristic element was the compact planning of the buildings around linked courts. The nature of these courts resulted from an analysis of the primary activities of the Institute, which were seen to consist of *STUDY* and *INTERACTION*. The architect notes that it was by structuring these two activities into a programme of work that the Institute's further objectives of research, training and dissemination are served.

In the competition scheme the courts were planned with their own individual characters. A 'study court' forming a community of scholars links to a 'college court' expressing



*The college court gives expression to the value of interaction within the institute's community by encouraging and enhancing contact between various groups.*

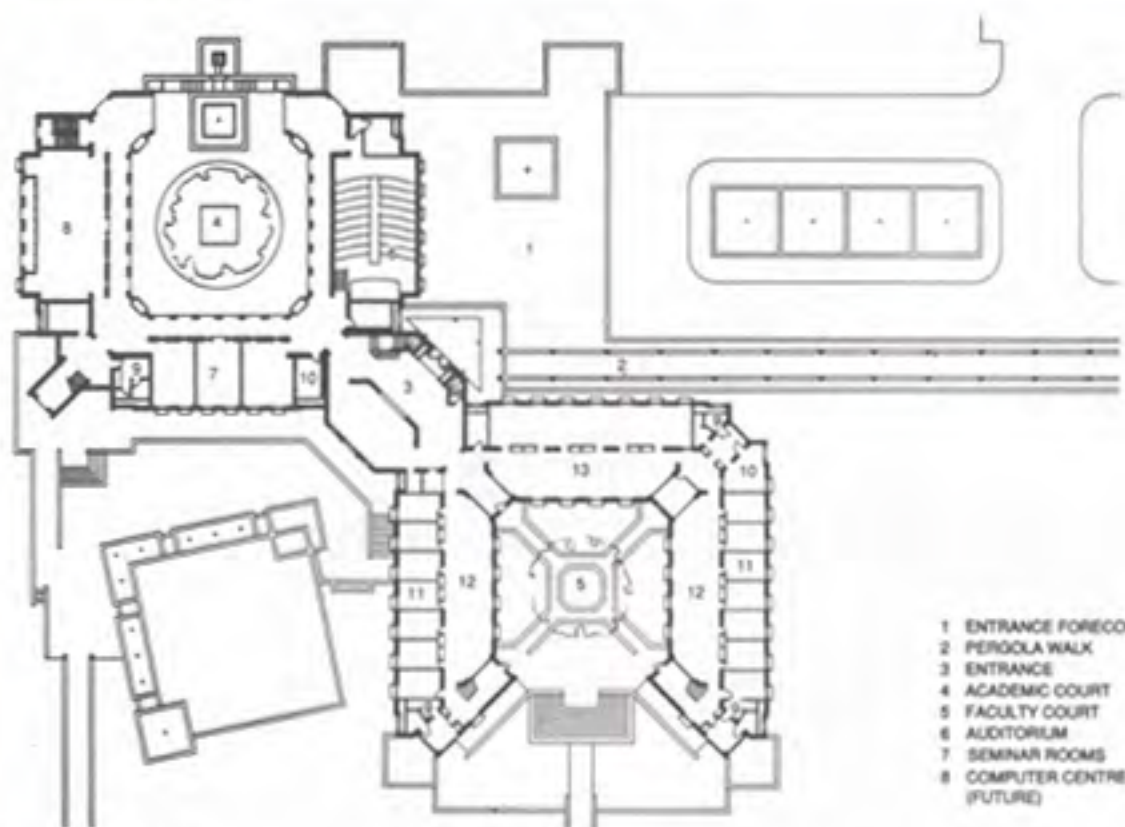
*The study court forms a community of cells and provides a controlled environment setting.*



#### SITE PLAN

- |                       |                        |
|-----------------------|------------------------|
| 1 COURT               | 5 MONSOON WATER COURSE |
| 2 SCHOLARS' GARDEN    | 6 ACADEMIC BLOCK       |
| 3 CAUSEWAY            | 7 HOSTEL BLOCK         |
| 4 ELECTRIC SUBSTATION | 8 DINING               |





- |                            |                              |
|----------------------------|------------------------------|
| 1 ENTRANCE FORECOURT       | 9 TOILETS                    |
| 2 PERCOLA WALK             | 10 EVAPORATIVE COOLING PLANT |
| 3 ENTRANCE                 | 11 CABINS                    |
| 4 ACADEMIC COURT           | 12 OPEN OFFICE               |
| 5 FACULTY COURT            | 13 LIBRARY                   |
| 6 AUDITORIUM               |                              |
| 7 SEMINAR ROOMS            |                              |
| 8 COMPUTER CENTRE (FUTURE) |                              |

ACADEMIC BLOCK



- |                           |
|---------------------------|
| 1 ENTRANCE                |
| 2 BRIDGE                  |
| 3 HOSTEL COURT 1          |
| 4 HOSTEL COURT 2 (FUTURE) |
| 5 LOUNGE                  |
| 6 ROOM                    |
| 7 TOILETS                 |
| 8 KITCHEN                 |

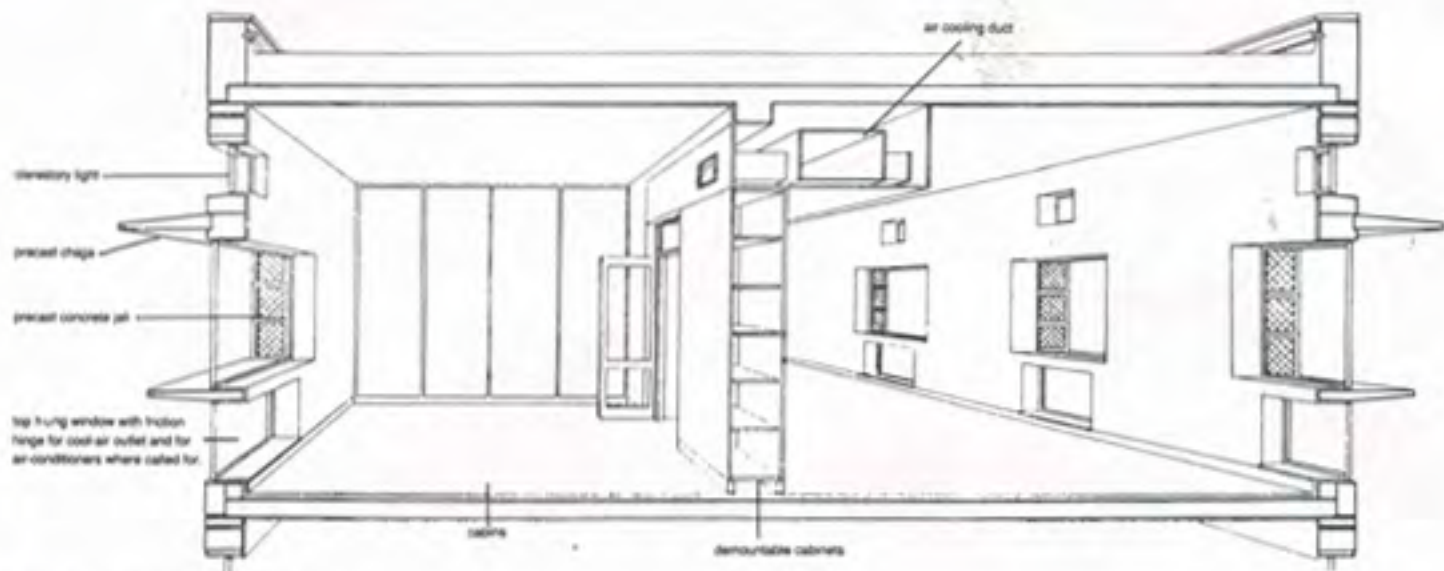
HOSTEL BLOCK



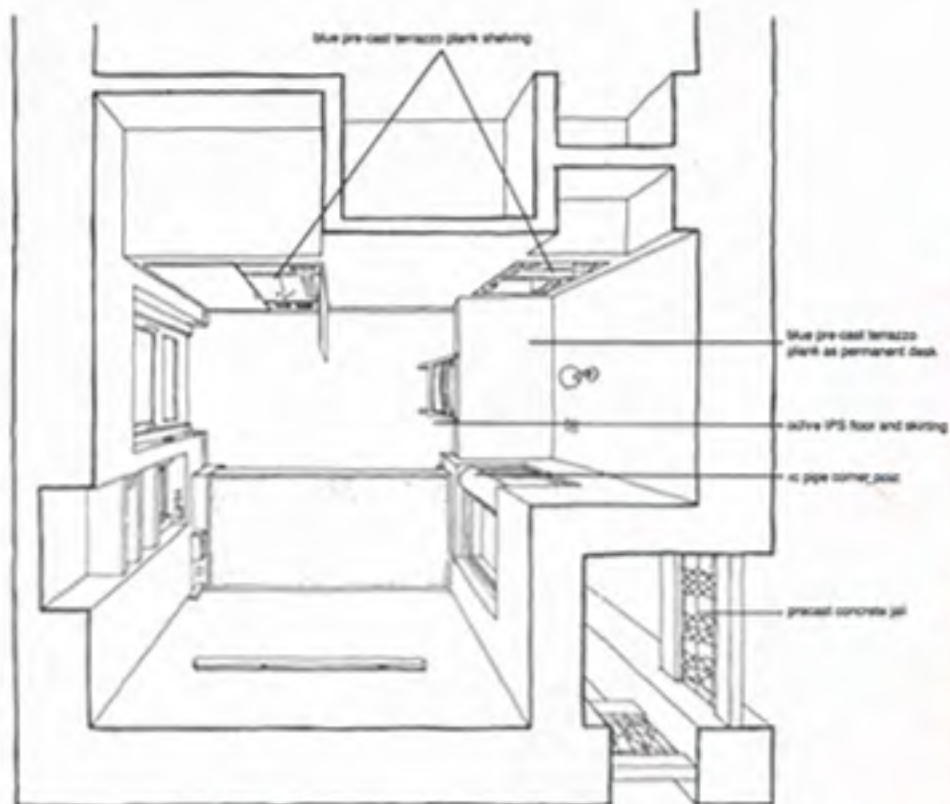
*A shaded pergola walk made of stone joists connects the campus gate to the main entrance.*



*A view of the auditorium.*



FACULTY COURT — TYPICAL WING



TYPICAL HOSTEL ROOM FOR JUNIOR TRAINEES

*In the hostel court small balconies look into the courtyard from the lounge of each flat.*



INTERACTION (lectures, workshops) within the Institute, by encouraging contact between various groups. This in turn was to be linked to a 'public court' formed out of the spaces where the Institute communicates with the world at large through exhibitions, films, conferences and the like.

As it happened, the requirements were greatly curtailed. The courts were reworked as a 'faculty court', which brings together research and administrative functions, and an 'academic court' around which the training functions are organized. Further reductions in area led to only three sides of the court being taken up as Phase I.

Each residential courtyard expresses a community. The two hostel courts planned so far provide accommodation for long term trainees around one, and for visiting faculty and senior training participants around the other. The trainees' hostel accommodation is in the form of flats. In each flat three small study-bedrooms share a common lounge and toilet facilities.

The organization of the faculty court spaces allows a modular variation in the size and number of the rooms with removable partitions. Similarly, the class room spaces in the academic court are designed on a grid which permits the formation of a variety of class room sizes. The pattern of fenestration is also coordinated with the planning grid. The

windows are designed to reduce glare, and yet ensure adequate natural light for all work spaces. The small high level glazing panel supplements window light by throwing more daylight at the back of the room to give a fairly even illumination level across the depth of the rooms. The ventilator below the window sill serves a dual purpose: it is an adjustable outlet for the air that is distributed to each space by the evaporative cooling system and can also house a window air-conditioning unit without blocking out the light and view. The cooling plant and service cores are designed to ensure a noise-free and draught-free air-cooling system. With the exception of a few air-conditioned rooms all work spaces are served by a built-in evaporative cooling system. Jaipur being a hot, dry area this system provides a high level of comfort at very little cost.

The essence of the expressive qualities of the Institute is found in the stone used here. And it is here that we can begin to unravel some of the interaction between design thought and its implications when applied in practice. The competition design report set out some design concerns: As Jaipur possesses one of the finest traditions of the craft of building, using locally available skills and materials, while being inherently economical, would also serve the important objective of preserving and strengthening a fine building tradition. The structure was,





*The faculty court — desperately waiting for the tree to give shade and fill out the volume of the court.*



*Horizontal bands of concrete give a vertical scale to the buildings while stabilizing the masonry.*





Ashok Lall

Custom-designed precast concrete jalis are held between precast RC chajjas and sills.



The entrance lobby has a touch of opulence with a marble floor and marble jali balustrades. The main staircase perambulates around the double-height space which marks the point of arrival.



*Slender exposed concrete elements are used as a counterpoint against the rugged and vibrant character of stone masonry.*

therefore, largely based on load-bearing masonry construction. There was a conscious effort to select construction methods and techniques which exploit the characteristics of stone construction. Its expressive qualities of colour, texture and exposed finish were harnessed to give character to the building. It is also a low-maintenance finish.

The architect's team spent some time in Jaipur and made a rapid survey of the skills available to them. They identified stone quarries, local craft-based workshops such as *jali*-makers and other construction-based resources such as a precast concrete workshop of a good standard. The kinds of stone available in the quarries was identified. The thought of using different kinds of stone as tradition had established (on the basis of their individual workability) was considered. Clearly, one can observe and appreciate how a larger framework of attitudes towards economy of means, appropriateness, and the preservation of an ancient building tradition guided the architect, whose experiences in applying these notions in this project are of interest.

First, a sample stone wall was built on site before tenders were awarded. Contractors quoting for the work could, therefore, see the standard and quality required. Second, the precast concrete *jalis* and terrazzo shelves were to be awarded to the workshop selected by the architect as a nominated sub-contractor on rates agreed upon. Such steps ensured that difficulties faced by the contractors could be overcome to meet design intentions.

To choose just one example, the stone chosen, an attractive pink quartzite selected at the quarry for its colour and expressive

quality, was normally handled by less skilled masons. This was because the stone was considered too 'coarse' to attract the more skilled artisans. The contractor's masons had to be trained to build to the standards set. The polygonal stone masonry was disciplined by course-lines at designed intervals. Also of note is a controlled irregularity in texture and colour.

What is clear is the attention that needs to be paid to preparation and procedure. For a conceptual framework of thoughts — towards appropriateness, the preservation of a traditional building practice or an economy of means — needs to be transformed into implementable strategies and enforced by set standards. Only such care results in 'built thought' in the Kahnian sense of 'architecture as the thoughtful making of spaces'. **Paul Appasamy**

*Client Society for Indian Institute of Health Management Research, Jaipur*  
 Design team Ashok B Lall, Rakesh Dayal, Aditya Advani, Sunita Sharma, Sujata Kacker, Neha Kulkarni, Vineeta Gothaskar  
 Consultants Engineering Consultants India (structural), Spectral Service Consultants (electrical and HVAC), Deolalikar Consultants (public health), M R Mehendale (quantity surveyor), Deepak Hiranandani (landscape)  
 Contractors Gurbukh Singh BA (civil), Antia Electricals (electrical), Suvidha Engineers (HVAC)

Area 5,500 sq m

Cost Rs 2,00,00,000

Date of completion 1991 (Phase 1)