

1983 TECHNICAL REVIEW SUMMARY

SANGATH - Architects' Office
Ahmedabad , India

256.
IND.

An ensemble of vaulted and flat roofed building arranged around a large terraced court , and houses a number of activities in its component parts .

Date of Completion : 1980

I. OBJECTIVES

To provide space for an architectural office, a private foundation and related community activities in a small building complex that expresses the architect's value; and to construct a building that is energy efficient and appropriate to the local architectural context.

II. DESCRIPTION OF SITE

The building complex called "Sangath" has a total floor space of 473 square metres and is located on a flat 2425 square metres site on the fringe of Ahmedabad City in India. The immediate environment is the site for a number of research and development institutions. The climate is hot and dry.

The complex is an ensemble of vaulted and flat roofed buildings of differing heights juxtaposed at a number of varying angles and arranged around a large, terraced entrance court. The court contains a fountain surrounded by split level pools. A number of exterior surfaces including the vaulted roofs, which take precedence, are covered with white irregularly shaped mosaic tiles. Some of the buildings have been sunk below ground level so that certain vaulted roofs rise only to eye level. The entire complex is contained within a walled rectangular area.

The complex houses a number of activities in its component parts. The design studios are housed in a double heighted volume surmounted by two vaults; between them lies a flat roofed area that permits light to enter the end-walls of each vault. Perpendicular to this wing is a block of four vaulted units of which the vaulted roofs are separated in similar fashion. The two units facing the entrance court rise to a triple height and house an architect's office, conference room, lounge and service area on the ground floor. First and second floors house the Vastu-Shila Foundation and guest area.

Protruding from the corner that articulates the studio wing and the architect/foundation wing is a low-lying, flat-roofed area housing a multi-purpose space, secretary's office and engineer's office. Four other vaulted units surrounded the complex, one of which houses a library.

III. DESIGN AND CONSTRUCTION

The architect sought to express his commitments and values concerning the relationship between culture, energy, tradition and architecture in the design and construction of his office. Having founded schools of architecture and planning, the architect, interested in research and community activities, designed a complex that could not only house a private office but also accommodate research and community facilities.

The vaulted form, used at first minimally, was later developed and used extensively to relate to Indian sensibilities. The vaulted roofs separated by lower, flat surfaces, were designed to make the best use of natural light. The pools were developed as a natural cooling system. Mosaic tiles, purchased as waste material, were used as an inexpensive means to reflect harsh sunlight and thereby reduce heat absorption.

The structural system is post and beam with re-inforced concrete slabs. Ferro-concrete cavity vaults with high insulation values are used on upper floors. Infill is brick masonry and facades are either mosaic tile or cement plaster. Interiors are characterised by the building's various shapes and forms. Light enters from different directions. Decoration is based on construction materials with the exposure of shuttering impressions on concrete ceilings contrasted to smooth, red oxide cement floors.

All materials and the 60% skilled labour force were of local origin. Reinforced concrete was cast-on-site.

IV. CONSTRUCTION SCHEDULE AND COSTS

The programme was developed between May 1976 and June 1978. Designs were prepared between May 1978 and April 1980. Construction began in January 1979 and completed by June 1980. Occupancy was taken in January 1980 while construction was still in progress.

The initial budget was RS 1,270,000. Actual cost totalled RS 1,470,000 (approximately US \$184,500). Funding was all private.

V. TECHNICAL ASSESSMENT

Sangath means 'moving together through participation'.
Sangath is alive, well and growing.

Although occupied just over two years ago, this project is still in its evolutionary process. Nonetheless, in its present state it has performed very well in answering the two-fold objective and intentions of the Architect-Owner.

As an architect's office, it has created an imaginative, simple, friendly, relaxed and subdued physical and psychological environment, most conducive for creative thinking and development of ideas while not sacrificing the inherent discipline of architectural philosophy and practicality.

As a base for a private Foundation (Vastu-Shila), it has attracted and subsequently generated a tremendous 'spin off' by the range of research, academic and arts activities originating and/or culminating within the physical boundaries of the project.

As a building, it has successfully combined the natural climatic control devices within its architectural expression, and together the project incorporated the architect's personal sense of value and broad philosophy of life and his existence. All these were achieved using traditionally available resources, technology and building materials in the vicinity of Ahmedabad.

The interplay and physical juxtaposition of the vaulted forms and spaces have created a strong and interesting sense of architectural norm and spatial quality. Its deliberate orientation has influenced the quality of daylighting levels throughout the day to all the spaces within the complex with few incidents of harsh lights. By its physical expression, Sangath has also enabled an effective harnessing and modification of the available natural elements such as wind and daylight and consequently improving the total ambience.

The physical setting of Sangath within the landscaped multi-levelled garden of randomly planted willows, flowering plants, shrubs, water cascades, reflecting pond and other greenery has created an 'Oasis' or 'Shangrila' amidst the relatively harsh, hot and humid environment. This 'Oasis' is created from the architect's personal intellectual awareness, aspiration and attainment. The result as observed is shared by the staff at Sangath as well as animals and birds in the vicinity.

The enclave of Sangath is a sight to behold and one has to be within it to really feel the spiritual experience.

The adaptability of usage within Sangath is most imaginative. Formal and informal functions have been hosted with participants scattered upon the compound and the amphi-theatre-like terraced garden.

The construction of Sangath employs the intelligent use of traditional building materials in practical combination of traditional construction techniques with modern technology. Terra-cotta vases were arranged to form the vaults with the help of a set of moving formwork. The entire works were done on self-help and equally semi-experimental basis, involving not only the architect but also his staff and local unskilled labourers. The sparing usage of costlier modern techniques in preference to traditional adaptive construction method has illustrated the architect's sensitivity and architectural awareness for a need to progress within the existing constraints of local building industry.

For the external finishes of the vaults, the architect's choice of using recycled broken glazed white tiles provided the additional function of heat reflection and exploring the artistic potential of expression using such recycled materials. Other external finishes are currently at evaluation stage and yet to be determined. Internally, the surfaces are either plastered or left in their natural off-form concrete state.

Simple yet resourceful detailing techniques were experimented for doors and windows and they have proven to be most practical. An example of these ingenious yet simple detail is the provision of self-closing performance on doors by deliberate eccentric hanging of the door hinges. There are other ingenious and practical minor 'inventions' being incorporated by the architect within Sangath.