

**'ARCHITECTURE OF THE FUTURE'**  
Talk delivered at UIA Congress, Barcelona-1996

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My presentation at UIA Congress Barcelona is based on examples of four projects. These projects represent the present needs of our society. I firmly believe that they constitute an integral part of our work and which will constitute an important part of architecture of the future in Indian sub-continent. The four projects which I will explain through slides represent one in each category of architectural concerns of today and the future.

- 1) Housing for slum dwellers - Housing Rights Issues.
- 2) Housing for earthquake victims- Calamity and Emergency Shelters.
- 3) Restoration of Bombay's waterfronts - Conservation, Heritage, Urban renewal, Environmental concerns and Collective use and Management of Public Spaces.
- 4) Centre for Apparel Export Promotion Council - Architectural projects for specific user-patronized schemes.

I will explain now in brief the highlights of each of the above four projects, thus establishing their social significance.

**1) HOUSING FOR SLUM DWELLERS - example 'SANGHARSH NAGAR'**

Sangharsh Nagar is born out of the struggle for housing waged by the people of Sanjay Gandhi Nagar, a slum situated at Cuffe Parade. With the leadership of Nivara Hakk Suraksha Samiti, the people of Sanjay Gandhi Nagar fought their battle of victory. The government considered their demands and provided alternate land at Goregaon. Upon this victory, achieved through a protected fight, the people decided to rename their new colony at Goregaon as 'Sangharsh Nagar'. With this as the background, the nature and objectives of the housing programme can be viewed.

First the occupation of the land was taken and occupancy rights established.

A Co-operative Housing Society is formed in whose name the conveyance will be transferred.

Then the land had to be filled and dressed, as this was at one time, a quarry. Excavation to depths of 40 marked the character of this land. The Municipality helped on this job by dumping garbage and debris. A common toilet was then constructed for immediate use. Simultaneously attempts are being made to get water connection.

**PLANNING CONCEPT** - The layout plan incorporates familiar forms and expressions which relate to the social and cultural ethos of the region thus establishing a dynamic pattern of spaces and structures. The open spaces include a variety of chowks, angans, baithaks, lanes and bylanes, all connected together.

**DESIGN PRINCIPLES** - The plan and the design of the houses are rooted in the traditional and cultural ethos, thereby closely relating to the life style of the people in the village, while materials used and the construction techniques are modern and earthquake resistant.

The different rooms of a house are held together by verandahs and open-to-sky angans. The inner angan relates to the kitchen and houses the toilets while the outer angan relates to the baithak.

**EARTHQUAKE RESISTANT CONSTRUCTION** - The whole structure is designed as one rigid unit. The various parts are designed and tied together to ensure synchronized vibration throughout. The foundations are designed to allow free horizontal movement during earthquakes. This is achieved by creating sand-fill pits around the foundations and footings.

Site on level, homogeneous and firm ground is preferable. Foundations and columns are in R.C.C. having R.C.C. plinth beams so that the entire structure is tied together to form a monolith. R.C.C. beams below the roof helps to tie up the individual columns and the roof.

The roof is an R.C.C. slab having brick parapet walls. The plinth walls are to be built with locally available rubble stone with cement mortar masonry and are to be left unplastered. The walls are made in brick masonry and cement mortar and stiffened with adequate reinforcement at courses. The walls are then plastered and painted in ethnic and traditional colours. The doors and windows are made of timber and painted. The flooring is finished with cement tiles.

### **3) RESTORATION OF BOMBAY'S WATERFRONTS**

One of the city's greatest assets is its extraordinary coast-line and its series of unique and picturesque waterfronts. Tragically, these waterfronts are also the city's biggest dumping ground-both literally and metaphorically.

The fact is that these 34 kilometres of the western coast have never been considered in the planning and development process as an integral part of the city's land mass. On the contrary, the waterfronts have been constantly abused by reclamation, sewage disposal and encroachment. The eastern coast has been put to restricted use for Defence and Docks and has been barred to public access.

Along with the struggle for immediate needs, the leadership continue to organize and raise the consciousness of the people; to inform and discuss various issues that they are confronted with and also to make them aware of their rights. In the meantime, a small office is being built through self help where meeting can be held and all activities coordinated, accounts maintained, etc.

#### HOUSING PROGRAMMES :

1. The leadership consisting of activists of Nivara Hakk Suraksha Samiti and elected representatives of Sangharsh Nagar will monitor the housing programme.
2. This leadership has decided against any institutional loans and donations as this would burden the otherwise strained economy of the people. As repayments are difficult, these loans would turn as tools of further oppression and exploitation.
3. People will built their houses, as they otherwise build in slums.
4. The leadership consisting also of some architects has prepared a layout plan. The plan giving a layout of plots, also outlines the position of common toilets, water taps, community centre and society office.

#### 2) HOUSING FOR EARTHQUAKE VICTIMS

In this example construction of houses was the last component in the rehabilitation programme of the earthquake victims. Soon after the earthquake, voluntary organisations and social workers worked for nearly two months in close relationship with the victims, understanding their problems, representing their needs and demands to the government, providing relief, organising medical and health-care camps and conducting meetings to install confidence and to strengthen the minds of the victims.

At the end of a long process of relief and rehabilitation, the project for construction of houses was undertaken. The effected families thus participated in the decision making process and subsequently in the construction of the project. Models were discussed, a proto-type house was built and debated and after a truly democratic process, the final house types were constructed. The effected population maintained vigilance and even contributed labour for the construction.

An extremely close relationship between the organization and people of the village led to the success of the construction programme. The people not only participated through self help in the actual construction but also participated in the construction activity and contributed positively to the process of design and development.

Yet, for the millions who live in this crowded city, the water-fronts are the only major open spaces-whether it is Marine Drive or Chowpatty, Haji Ali or Worli Seaface, Dadar Beach or Bandra Bandstand, Carter Road or Juhu Beach, or Versova. The water-fronts are Bombay's most significant and popular public spaces to which people from all sections of society flock, not only from the city and its suburbs but from elsewhere in India as well. It is a place for leisure, relaxation and entertainment. Unfortunately, the adhoc, unplanned commercialisation, without a cohesive and comprehensive vision, has considerably destroyed the natural environment. Absence of a master plan for the development of the waterfronts has encouraged the rich and the powerful to manipulate and grab land. A large part of the waterfronts has been under private and restricted use, thus gradually starving the city of its most vital public space.

Our objective has to be to progressively restore and preserve the natural beauty of these waterfronts in a pragmatic and realistic manner, working within existing realities and solving key problems through simple, modest design solution, and also to create a momentum for positive change. There can be no grandiose ideas here. In fact, no major construction on these waterfronts should be allowed. Instead there must be : firstly, a halt to the abuse of our water-fronts; secondly, a selective reallocation of spaces and activities; and thirdly, very minimal restructuring where necessary. Most important, these waterfronts must remain the collective asset of the city and all its citizens; and a vital, vibrant element in its environmental and social fabric.

**SOCIAL SIGNIFICANCE AND IMPLEMENTATION** - In order to maintain its social significance and to undertake its implementation it has been necessary to organize a Juhu Citizens Forum. The forum consists of various individuals and organizations living around this areas and/or concerned with this social and environmental issues. The forum consists of the hoteliers, hawkers and vendors, taxi union, Government officials, Municipal Corporation and residents of Juhu.

We organize regular meetings, discussions and public campaigns to build a public movement for the restoration. The forum also monitors the various activities on the beach and maintains vigilance against encroachments and other illegal land grab attempts.

#### **RESTORATION**

Ultimately, due to the lack of public control, apathy and growing detachments leading to environmental degradation, vital public open-spaces in the city and the waterfronts are being eroded and made inaccessible to public. This adversely affects the social, cultural and environmental conditions of the majority of the population.

Therefore, radical interventions are required to restore and develop our waterfronts and public-spaces. These interventions suggest the following actions ;

1. Declare the waterfronts as conservation and restoration zone. A comprehensive development policy for the waterfronts be formulated and no major construction be allowed.
2. The waterfronts must be primarily considered as public open spaces and not allowed for any restricted or private developments. These waterfronts must remain the collective asset of the city and all its people.
3. Surveys must be carried out to record all existing activities and structures and appropriate action initiated against illegal occupations.
4. Government should take lead in constituting people's forums in various parts of the city. These forums would coordinate and monitor restoration programmes and participate in the decision making process. Also campaigns, must be carried out disseminating information for public awareness and to encourage peoples participation.
5. Adequate sewerage, sanitation and garbage disposal systems must be implemented. Also it is important to install proper lighting in public spaces for security.
6. Traffic movement into and around these areas must be reviewed and adequate parking and adequate public transport connections developed.
7. Landscaping that includes, horticulture, pavings, edge walls and erosion protection, lighting, conveniences such as drinking water, toilets, phones, etc., must be developed along the waterfronts.
8. To declare Koli (fisher folk) settlements as protected areas and to prepare and carry out conservation and development plans.
9. Design as a generator : It is necessary to prepare designs for the restoration of waterfronts at different points in the city. Design proposals will lead to discussions and public campaigns and provide a planned basis for development.

#### 4) APPAREL TRAINING & DESIGN CENTRE

Here is an example of a more traditional role of architects, a project patronised by a client and a work of the architect that convinces the patron. The Architect produces his work in a highly individualistic manner. The example and the process therein is old and familiar to all of us. It is important however that these projects are keenly pursued to develop our architectural and design skills. This project is being built in New Bombay for the Ministry of Textiles, Government of India.

Our central objective is to create an environment in which a variety of buildings and open spaces are intimately intertwined, thus providing an exciting and dynamic experience of movement.

A central square 'Water Court' along with various Academic, Training and Administrative buildings form the nucleus of this complex. An exciting circulation around the 'Water Court' connects several buildings housing the various requirements.

## **Conclusion : DEMOCRATISING ARCHITECTURE**

History of architecture and the role of architects in the traditional sense speaks of a profession which is overwhelmingly controlled by whims and fancies of a single patron. Even when the patron is a collective or represents a collective interest as in the case of public and Government projects, the attitude of the patron is similar to those of an individual client. In most projects, having traditional working format, the architect champions his own individuality. His patron too expects the architect to firmly express his own individuality and design idea irrespective of larger social concerns and influences. Decisions are individually made and are far distanced from the ideas of a collective. As a matter of fact, democratic mechanism in decision making are often considered as interference to creative work. In the architectural practise of today and more so of architecture of the future, we have to democratise the process of decision making, encourage people's participation even for evolving architectural programmes. We have to develop new languages of communication and new vocabulary which will result in distinctly different expressions of forms and structures. Our search towards this new goal continues amidst the struggles of millions of citizens who are underprivileged and marginalised.