

Attuned to Nature

Today, even as man's intervention with nature has caused havoc in the environment, often upsetting the delicate ecological balance beyond redemption, the role of the landscape architect and his profound insights into the functioning of the 'living system', assumes added significance.

Landscape architecture in India is in the foetal stage, but it is the works of architects like Ravindra Bhan, which have led to its overall development and fuller appreciation as a discipline. Spanning some 30 years, Bhan's works cover the development of highways, trade centres, residential and industrial complexes, hotels and embassies, a golf course, and the Asiad swimming pool, while his contribution to the Mughal Sheraton Hotel, Agra, has won him the coveted Aga Khan Award.

Subscribing to the ecological approach to landscape architecture, Ravindra Bhan, who was greatly influenced by the pioneering genius of Ian McHarg, the American who popularised this concept, believes that both the natural and man-made environment should be blended to produce a harmonious whole, so that, while altering the living system, vital inter-relationships between living and non-living things are not disturbed.

Ravindra Bhan talks to Vivek Anand.

Talkatora Stadium: Sculpted earthen mounds form an undulating landscape.

Landscape architecture is a specialised branch of architecture. Just as the architect deals with the building or the planner with aspects of town planning, so too the landscape architect deals with the total environment, the external spaces on which a building sits. He is not concerned with spaces alone, but rather with the environment's potential, how best to harmonize inner spaces with those outside.

Two main components of the environment have to be considered: the man-made component, which involves man's intervention, like the construction of roads, bridges, buildings, along with all the necessary infrastructure; and the natural environment, like space, water, trees, rocks and the earth.

Ecological balance

When an architect or town planner plans, he is in actuality,

intervening with the 'living system'. This intervention can be disastrous, when insufficient thought is given to the effects of development, especially its long-term consequences on the environment. The blend between man and nature will then not be harmonious. There will be a contradiction instead. In the long run, the total environment is bound to deteriorate. This is what ecology is all about – the inter-relationship between living and non-living things and their habitat. It is with this insight and understanding that the landscape architect plans his work.

A hundred years ago, the landscape architect was merely a gardener. But the art gradually evolved. With the coming of the industrial revolution, one witnessed the horrifying effects of population explosion and the abuse and disregard of nature. Ecological considerations then came into the picture.

Today, formal training in the natural sciences, like geology, hydrology, and soil mechanics are a must for any aspiring landscape architect. By understanding these, he can better relate to the development potentials of the area.

Surroundings are important

Most architects do not take the entire environment into consideration while building. So they fail to visualise the way in which the building sits on the site. While beautiful buildings have been constructed, nobody seems to pay any attention to things like road lighting or parking lots. These are as important as anything else. Why should we have bad lighting? Why can't lighting poles be beautiful? Why can't post boxes and trash cans be well designed? For that matter, why can't all street furniture be well designed?

Well designed open spaces

Open spaces have to be in a certain proportion. You can't leave tiny patches here and there and pass them off as open spaces or green belts. Most of our town planners think of green space as a little patch of garden. For them two acres for a park are more than enough. These two, three or ten acres don't give you the feeling that you are in the open. Parks are crowded with people. For such a large population, we need equally large areas giving one the feeling of being in the open – to see the grass, trees and greenery and not just people.

In Delhi there are 3,000 acres which can be so used. But we have been parcelling these acres off to this institution or that. This space should have been utilised as a large recreational area, at the metropolitan level, where people could picnic or camp. Instead large open spaces

have been kept aside for the purpose on the outskirts of cities, like Sona, 60 km away from Delhi. Who can go to such a far out place? Instead you need accessible areas, which are preferably next to where one lives, or very nearby.

Take the example of New York, a terribly congested city. But a visit to Central Park, which was constructed by a landscape architect 80 or 90 years ago, makes you feel you are no longer in the city. It is amazing, mainly because it is a large area where you can feel one with nature. This could happen in every city if they were planned rightly. By now, we should have had sense enough to plan areas intelligently. Instead, we are still planning areas like Rohini, a DDA project, which is to be the largest housing colony anywhere in the world. This has all the makings of a perfect nightmare. The relationship of open spaces to buildings is practically nil here.

Tara Apartments: Well-designed green spaces.

Carrying capacity

When we take into consideration the accelerating growth rate of our metros, it is imperative to plan systematically for the future, having a complete understanding of the total environment and ecology. Take the instance of Simla. While considering its development, one should have an understanding of which areas can take development, and what the intensity of development should be. For example, there may be areas which are fragile and so won't take three houses in an acre. Alternatively, there may be areas where you can build heavily without any adverse effects. One has to understand the carrying capacity of the area and develop it only to the extent to which it will accommodate the development and retain its peculiar character.

Why should one build so intensively in Simla and spoil the beauty of the place? Even the pine trees will, at this rate, last another ten to fifteen years only, because the pressure on the sloping ground is so intense, that every drop of water will be squeezed out of them. The whole of Simla is on very soft rock, shale, which is not stable. Thus, if it is not kept under very heavy forest cover, it will be washed away.

Landscaping for low-cost houses

I do not think that landscaping is only for the affluent. A number of low-cost housing projects have demonstrated that it is possible to have a pleasant environment even in low-budget houses. It is actually a question of how you plan your house internally, how you organise your space, say, in terms of courtyards; how you plan your



Ayodhya: Before restoration work was begun.

buildings with respect to the wind direction and orientation. For instance, a long room with openings in the direction of the prevailing wind, will achieve the maximum benefit of the wind direction. The two windows can funnel the stale air and circulate the fresh air, pro-

vided they are in the correct wind direction. Again, while planning housing projects, if the maximum number of houses are packed together, so that they share walls, then the outer peri-

Ayodhya: Bathing ghats line the recently constructed 1km long channel.

meter of the walls are not exposed to the sun. This minimises radiation. The more area you expose the greater will be the heat intake. Such fundamental principles must be kept in mind while planning.

One should also remember that one cannot build the exact replica of a house that has been built elsewhere, like in America, Germany or Simla, on another site. That is just not possible. The peculiarities of the site, climate, place and what happens in the surrounding areas are important. The location of roads, the wind direction and orientation, would also dictate the type and form the house would assume. Unless you consider this in totality, you cannot have a coherent whole. But if you design, keeping this in mind, then you can achieve a decent environment even in low-cost housing projects. It is, thus,

not necessary to spend a lot of money on landscaping. In fact, the only real expense may be the initial input and the professional's fee.

Lessons from traditional architecture

When building on a noisy street, what is the use of a balcony and a glass frontage? For whom are we doing this? Merely for people to look at and say that this is a wonderful facade? Ninety percent of houses have no regard for living conditions. The frontage is glorified as it faces the street. But does an occupant ever come to the balcony? He does not, because of the 160-decibel noise level outside, the dust, and everybody staring at him. Grilled balconies are still worse; you cannot even place a chair there. But if the house was turned back, or inverted, and lawns abutted the streets, the disturbance would be greatly reduced. Our traditional architecture, right from

the rich man's *haveli* to the common man's dwelling, show an understanding of this, as the courtyard, which is the main area where things happened, was centralized, with the other rooms surrounding it. Even in village mud houses, there is an heirarchy of space: there is a kitchen area, an area where elders sit, an area for women, an area where cattle are kept, and an area where people gather. This plan is very workable. In addition, in Indian conditions, small openings are needed, since, even if you wish to eliminate the heat, you require basic ventilation, and a low level of light as you are in intense light conditions most of the time. The smaller the openings, the less the heat intake. The minimal use of glass, insulating thick walls, plenty of vegetation and trees, and the use of water inside a building would greatly reduce the heat. These principles have been used very successfully in the past. History is replete with

examples of how water has been used in buildings. But have you seen a modern building use water in the way in which it has been used in the Red Fort and Mandu? We refuse to learn from the past and just blindly follow foreign examples without studying them to see if they are suited to our climate.

Lack of awareness

There is a general lack of awareness about landscape architecture. The people in the government also don't have the faintest clue about it. They feel the landscape architect is basically a horticulturist, and so

they say that the horticulturists on their staff can lay gardens and grow shrubs. I feel it is important for every government agency to have landscape architects on their staff. Just see what the DDA are doing for housing in Delhi – they are practically building the whole of Delhi. But these houses do not take the overall environment into consideration. It is just row after row of houses. At the most, they have left a large space in between, which they call a courtyard. But this courtyard becomes so small by the time everyone gets into it, that it becomes nothing more than a

dust bowl. Nothing grows there, as the carrying capacity of the area is not enough for the population that it caters to. It is a shame that we have not realised this. In the Tara Apartments, New Delhi, you may not find a lot more space than there is in government housing colonies, but the space is really well used. If spaces in government housing colonies were well designed, they could be equally good.

Ravindra Bhan speaks about some of his major works

Ayodhya

I am currently doing a massive job in the ancient town of Ayodhya, the birthplace of Lord Ram. Originally built on the River Sarayu, large portions of the town were depressed when the river changed its course. However, over the years these portions were silted over and gradually filled up. Like Varanasi, Ayodhya has bathing ghats along the river, and winding, picturesque streets which seem to flow into the town.

Our project involves the creation of a channel, to enable people to bathe along the river where the ghats are located. Wishing to revive the past glory of the town, we constructed a large channel which looks like the river itself. This entire stretch is one kilometre long and includes ghats and bridges. We have also rehauled the sewage

system of the town, and solved its drainage and lighting problems. I think, this is the first time anywhere in the world, that a project of this scale and magnitude has been undertaken.

Hotel Mughal Sheraton

The Hotel Mughul Sheraton, Agra, won the Aga Khan Award for excellence in architecture in 1980, as one of the 12 best built buildings to be constructed in 29 countries. The design team consisted of Ramesh Khosla, Ranjit Sabikhi and Ajoy Chowdhary, while I contributed to the landscaping of the project.

This was the beginning of landscape architecture in India, where for the first time building and landscaping were integrated at the design stage.

The outcome was a totally distinct building – distinct in its style and concern for environment. The notion that this build-

Hotel Mughal Sheraton: the award winning hotel where building and landscaping were integrated at the design stage.

Facing page: Hotel Mughal Sheraton: A series of fountains revives the Mughal flavour.

ing would be extremely expensive was also disproved. We demonstrated that not only was the construction of the Mughal Sheraton the most economical for a 5-star hotel in India, but for that matter, anywhere in the world.

In 1974, the cost per room for a 5-star hotel ranged between 5 and 6 lakh, all inclusive. Today, the cost has risen to about 8 or 9 lakh. But in the Mughal Sheraton, the cost per room was only 2 lakh, even though we undertook the extensive landscaping of 15 acres, a feat never previously attempted in India, which included paving, planters and fountains.

Today, this is an extremely popular hotel, with a 100 percent occupancy most of the time.

Designing factory sites

Most factories are architecturally very poor. The client generally goes to the cheapest architect available, and gets nothing more than a glorified shed, erected. It is only the landscape architect who can plan the area around the factory: the location of services, the network of roads, the dumping grounds and the stores. An architect has no way of understanding this as he is only concerned with the building. He puts up his structure, sees that the facades look good, and quits. He may suggest that a road run from point A to point B. But it is also necessary that it be an aesthetically satisfactory solution. The road may be shortest from point A to point B, but it may be most uninteresting, merely leading from one gate to another. The same road could be placed a little to the side, mak-

ing it longer, but it would not cut the site into two halves, leaving a pleasant feeling when one arrives at the entrance.

Hotel Kanishka

The Hotel, which is located at the junction of two roads, posed a different problem altogether, as its recreation area was adjacent to this noisy intersection. The noise level in the area was so high, that when the client called me over one afternoon, we found it extremely difficult to converse.

It then seemed that the problem could not be resolved as it was not possible to earth bund or plant heavily in the limited space. We ultimately came up with an amazing solution: we decided to depress the area by a couple of metres, create a waterfall along the entire stretch (to deaden the noise), and plant densely in some areas. It is totally different now, insulated from the outside noise and disturbances.

Hotel Kanishka: Overview of the swimming pool and sun-bathing area.

Facing page above: Hotel Kanishka: The waterfall forms an effective sound barrier.

Facing page: Hotel Mughal Sheraton: A raised octogonal brick fountain surrounded by pebbles

We have also constructed a swimming pool here and a separate walled-in pool for the children so that they have their own private space to play and splash around in. Then there is a sun-bathing area with a choice of hard and soft surfaces and grass terraces around the pool. Larger areas have been set aside for general recreation. The whole place has been designed at different levels so that it appears visually larger and provides for a certain level of privacy between the different groups of people.

The area itself has been integrated with the building by providing courtyards and by the use of planters. □