'Architecture involves creativity...'

Benny Kuriakose is a Chennai-based architect and an expert on low-cost architecture. He's also a student of the legendary architect Laurie Baker. Kuriakose is currently involved in the reconstruction of two tsunami-hit villages in Nagapattinam. **Poornima B V** catches up with him for a chat on eco-friendly architecture

What's your concept of low-cost, eco-friendly architecture?

The concept of eco-friendly architecture in the Indian context is different. Low-cost does not necessarily mean low quality. I believe that what we need is architecture that takes its lessons from our traditional techniques and materials. We will be making the same mistakes we made 40 years ago by copying architecture from the West - of steel and concrete which had no relation to our climate, social and cultural aspects. We need to use material that's available locally. We lack the financial resources to follow the international style of green architecture. It is high time we thought about the energy consumed by buildings. Recycling and reuse of material should be encouraged.

What sort of reusable material do you advocate in buildings that will make construction cost-effective?

The windows and doors used in some public buildings I designed have come from old buildings which have been pulled down. I also use recycled rafters which do not have much use except as firewood. I design a lot of timber roofed buildings, but I use lesser known species which are normally used as firewood. One advantage of timber is that it can be recycled. Another major advantage is the thermal comfort it gives. Of course, timber is easily attacked by termites, but we now have many options to control it. Research has shown that a physical barrier is more than enough to prevent termites in the ground from going up and attacking timber. The attempt should not be to reduce cost at any cost. One has to look at how long these buildings last.

How do you get more lifespan from buildings?

The durability or lifespan of buildings is dependent on the quality of construction, provided the materials used are of the required quality and quantity. There is no short cut to good workmanship. Using construction chemicals and waterproofing compounds do not solve the basic problem.

How do you make a building cooler to cut air conditioning costs?

Many think that the reinforced cement concrete (RCC) buildings are hotter and the traditional buildings are cooler. It actually depends on the way RCC has been used. Traditional buildings in Kerala have an overhang which protects the mud walls or the timber walls. Modern buildings do not have that. Sunshade is given only above the windows, so the walls transmit a lot of heat inside. Cross ventilation is another neglected area. If there's a large window only on one side, there will be no cross ventilation or wind movement. You should have equally good amount of openings on the opposite side as well. Old buildings had verandahs all around, which protected the main walls from direct sunlight. Now it has become expensive to build a verandah around buildings.

The best sunshade one can have is a tree. This will protect the walls as well as the roof from the sun. One may not be able to avoid air conditioning completely, but the cost of running the air conditioner can be brought down by various methods. Many of these methods are found in the traditional buildings. To forget all these basic principles in construction and to go in for artificial air conditioning may not be sustainable in the long run. These aspects have to be incorporated in the building design itself.

Your advice to budding architects...

There is no shortcut to hard work. One reaches a particular stage after a lot of hard work. Knowledge is like compound interest. Also, one has to strive to excel. Architecture is a field which involves creativity. The best, in terms of work, will come as the person becomes older. Experience is a major criterion for success in this field. Unlike sports or any other field where the best output is when a person is young, in this field, one cannot become famous or rich in a short time.

The major drains in the city are being remodeled to ensure there is no flooding when the rains set in

The Bruhat Bangalore Mahanagara Palike (BBMP) has taken up work on storm water drains in the city under 15 packages in the Vrishabhavathy valley, Hebbal valley, Koramangala valley and Challghatta valley areas. According to BBMP sources, some low-lying areas still faced the brunt of the recent rains because of their location and the fact that they are low-lying areas. The most important aspect that needs to be addressed is the separation of sewage from the storm water drains in close co-ordination with the BWSSB. A provision of Rs 40 crores has been made in the budget for this purpose.

According to sources in the BBMP, work is being carried out on desilting of drains, strengthening and reconstruction of walls, bed treatment, and widening of drains. The project, funded by the National Urban Renewal

Storm water drains being strengthened

Mission (NURM), is being taken up at a cost of over Rs 450 crores. Of the 131 bridges that required remodeling, 38 bridges have been remodeled so far. Work on 36 bridges are still in progresss. Work is being taken up on an emergency basis in some areas like Mysore Road, Kamakya, Ejipura and Nagawara areas.

Apart from this, storm water drain remodeling work is also been taken up in the three CMC areas of K R Puram, Rajarajeshwarinagar and Byatarayanapura areas, at a cost of Rs 80 crores. There are plans to cover the entire reaches of Greater Bangalore soon.

In the Vrishabhavathy valley, indiscriminate dumping of debris has been controlled by putting up chain-link fencing at such points. Work has also been taken up to increase the carrying capacity of drains from the Magadi Road Bridge to Nagarabhavi.

In the Koramangala valley, where a large quantity of sewage and effluent flow was noticed, efforts are on to prevent dumping of solid waste. Efforts are on to relocate hutments in order to modify the Koramangala valley primary storm water drain alignment at LR Nagara slum and speed up work there. There has been remodelling work on inadequate vent ways in the valley. Inadequate vent ways and culverts constructed near Jakkasandra and

Kalasipalya have been removed.

In the Challaghatta valley, additional land is being procured for drain widening at Lakshmidevinagar near JC Nagar.

In the Hebbal valley, land has been procured for drain widening near Badrappa layout. Work is also on at Kadugondanahalli near Kavalbairasandra and at Bagalur layout near Lingarajapuram, where strengthening of walls is being taken up. A major bridge will be constructed on the Hennur-Banaswadi Road over the drain. Tenders are being called for and work will begin soon, according to BBMP sources.

– P B V

Advanced version of simputer for traffic police

The city's traffic police are acquiring an online simputer and more traffic monitoring cameras

The city's traffic police will soon see an advanced version of the simputers they use to issue challans for traffic violations on the roads. The handheld computers - simputers - introduced in July 2005 are not connected online to a database and have some inherent deficiencies. "We have to download and update data entered in them every evening. Therefore, if a motorist is booked by an offence in the morning and the same motorist is booked again in the afternoon, the simputer shows up one traffic offence pending even though he would have paid the fine for the first one. Now, an online version is being acquired where the data entered is updated online", says M A Saleem DIG, police.

This new version makes it possible to keep track and source data online on the history of offences of any motorist. "The fine will be levied depending on the number of times the same offence is committed. Beyond a certain number of offences, the driving license can be impounded", adds Saleem. While there are 30 simputers in use right now, 250 of the advanced version will be acquired in a month. Inspectors and sub-inspectors across the city will have these advanced simputers.

Monitoring cameras

The five traffic monitoring cameras functioning in the city since April 13 have proved useful in easing the condition. Four on Airport Road and one on Hosur Road relay the condition to the control located at the Public Utility Building. The person monitoring the traffic from there can pass on the information to officers on the ground to help clear traffic faster. "We will be putting up another 40 such cameras on major roads across the city. The traffic police on the field can divert or regulate traffic accordingly and ensure a smooth flow", explains Saleem.

New range offices for Greater Bangalore

The BBMP is strengthening its administration wing for better monitoring in the new areas being added to its jurisdiction

The formation of Bruhat Bangalore Mahanagara Palike (BBMP) or the Greater Bangalore Municipal Corporation (GBMC) has meant that the infrastructure needs of these new areas need to be addressed. With the integration of eight municipalities and 110 villages, it has meant that the area under its jurisdiction has now increased to 800 square km from the earlier 226 square km. In order to improve governance, the BBMP has set up 20 new range offices. These areas are plagued by problems like unauthorised constructions, no effective control or removal of encroachments, poor documentation and poor maintenance of records. These areas are also prone to flooding, lack of storm water drains and inadequate water supply.

Administration in the five new zones

An interim administrative system in these zones has been put into place with five senior officers placed as zonal joint commissioners. Existing commissioners have been taken as deputy commissioners in the new zones and the head office. Revenue officers, assistant revenue officers, executive engineers and health officers have been appointed in the new zones to assist in smooth transition. All existing offices in the new areas can be approached for services by the citizens. All contracts for works and maintenance, streetlights and for solid waste in the new areas would continue for the time being. All on-going works in the new areas would continue, according to BBMP sources.

Staffing

A total of 4,429 additional posts have been identified. Over 1,106 posts have been created in the interim, until a work study is conducted.

To address the needs of these areas, 20 new range offices have been set up:

Bytarayanapura Zone: Four range offices

- Existing Byatarayanapura CMC Office / Nagavara ward office building
- Existing Yelahanka CMC / ward office
- Existing ward office building at Vidyaranyapura
- Existing Dasarahalli grampanchayath building

Mahadevapura Zone: Five range offices

- Existing Whitefield ward office
- HAL / Marathahalli
- Existing Mahadevapura CMC office building
- Existing K R Puram CMC office
- Ramamurthy Nagar (near police station)

Bommanahalli Zone: Four range offices

- Existing Bommanahalli CMC office
- Haralakunte
- Arakere
- Konanakunte

Rajarajeshwarinagar Zone: Four range offices

- Existing Rajareshwarinagar CMC office building
- Existing Kengeri TMC office building
- Existing Nagarabhavi BDA complex (Ist floor)
- Existing Subramanyapura gramapanchayat

Dasarahalli Zone: Three range offices

- Existing Dasarahalli CMC office building
- Laggere
- Nellagadaranahalli

– P B V