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ATTITUDE

▲● RAJ REWAL ● DESIGN JATRA ● SHIRISH BERI ● LOUIS KAHN ● DE EARTH ● NEW GARAGE DESIGN CREATIVE GROUP ● OASIS DESIGNS INC ● SANJEEV JOSHI ● JIT KUMAR GUPTA ● GIRISH KARNAWAT

NEW LANDSCAPE URBANISM FOR CITIES

From combating climate-change challenges, restoring eroded seafronts, managing storm-water to prevent flooding, helping replenish the fast-diminishing ground water, protecting and regenerating the planets biodiversity—it is only with the help of a new landscape design paradigm that these problems can be addressed across our urban centres.

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Strategic plan for eco-restoration of Coimbatore lakefronts

Eco-Restoration of 8 Lakes Under Coimbatore Smart City proposal Phase–1

GREEN INFRASTRUCTURE

The green infrastructure approach is becoming increasingly important as urbanization grows. Rapid development degrades the landscape ecology, and now it has become imperative to think of how the planet shall sustain. It is time to rethink the conventional grey infrastructure approach and looking at finding opportunities to create a place for nature in our cities.

The eco-restoration of eight lakes as part of the Smart City projects in Coimbatore, encompasses this approach and aims at the creation of cross-sectoral solutions for the city to re-align itself, and to protect, conserve and celebrate its rich cultural heritage and help tackle problems of sewage pollution.

As a result, these sewage-carrying, debris-ridden lakes are getting transformed into the city's new 'public realm' and the attempt to harness eco-system services help the city become more sustainable and liveable for the future. The lake system built by the Cholas over 1200 years ago, was an intricate inter-connected system: water flowing into the Noyyal Valley from the surrounding hills of Western Ghats is first intercepted by these lakes. Its overflows then feed subsequent lakes, before finally connecting to the river. The Coimbatore Smart City Plan lists out eight lakes situated north of the Noyyal River valley, which are fed by canals from overflow weirs constructed on River Noyyal and storm-water streams originating in the Western Ghats situated further north of the Noyyal basin. Making connections by identifying and working on the missing links, the eight lakes project for Coimbatore Smart city focusses on three areas: Water linkages; Green linkages; and walking and cycling linkages.

Public open spaces define the quality of life, and is an extremely critical component in high density urban centres. Apart from contributing to mental health issues, access to high quality common public realm contributes to creating more equitable and cohesive communities. Access to free play areas, public waterfront promenades, safe pedestrian-friendly streets, is what defines a good city.

Public open spaces should not be left-over spaces in cities or townships, but should be carved out at the planning stage itself. This gives way to a network of open spaces that enrich the urban environment and help preserve urban ecology. Similar initiation was taken up while developing the TOD Masterplan for the 69 km-long Mumbai suburban rail corridor which focused on detailed design plans for three greenfield stations– Nighu, Narivali and Nilaje stations in collaboration with Ernst & Young. The project was taken up for the World Bank. The network of open spaces that was developed, interconnected the greens along corridors required for the high-tension lines, road edge buffers and the green buffers planned along water streams, creating an entire system of 'green-blue' network. Apart from ecological services, these greens shall help provide pedestrian and NMT connections to complement the proposed greens.

View of Coimbatore lakefront development

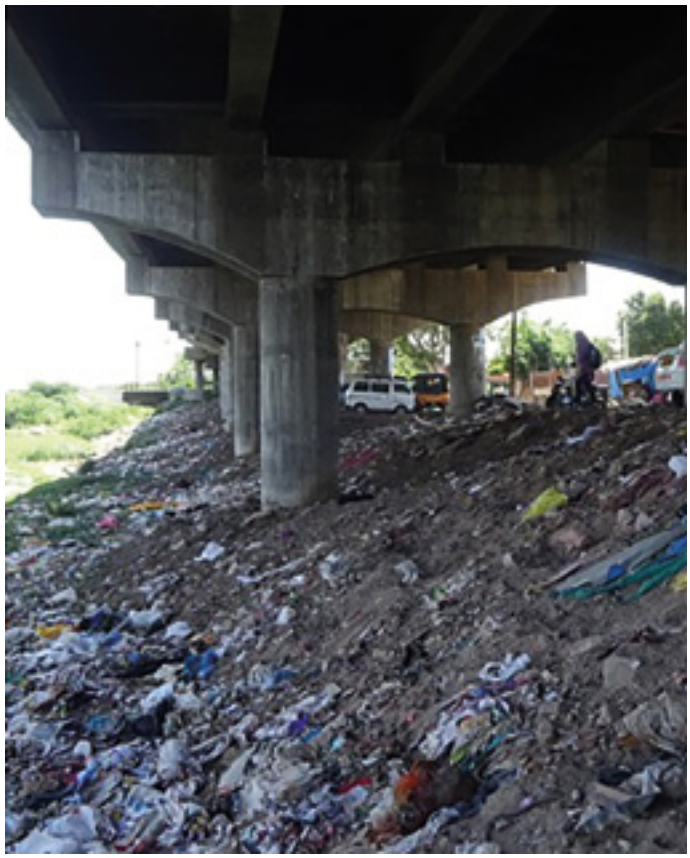
Under the Mega Streets Program, a similar approach was undertaken in the North Chennai precinct, where plans have been developed to convert all the challenges into opportunities which aimed to leapfrog urban redevelopment in this area to create a new sustainable walkable community. The project leveraged the newly constructed metro accessibility and envisioned to redesign the public area from streets to open spaces and create a visitor's paradise. A seafront promenade was also designed as a destination public space.

With modern high-quality mass-transit options being built in all our cities, there is also a need to invest in a corresponding 'transit-culture' that celebrates this new way of people commuting and travelling around. Pedestrian plazas at metro stations, multi-modal integration allowing seamless modal connections; be it by bus or para transit, all become part of the new public-realm design for the city. Multi-modal integration at Chattarpur Metro Station was one such project that celebrates the transit culture and enables a convenient, modern, safe and universally accessible, barrier-free environment for people to connect to different modes of transport like the public buses, feeder buses, non-motorized transportation and other para-transit modes. Conscious efforts were made to encourage better connectivity to and from the metro stations and hopefully help convert a lot of small vehicular trips to more sustainable modes. Special care was also taken to design the entire facility as a 'pedestrian-first' zone both in terms of climate comfort, shade, etc.

A place-making approach that aims at focusing on creating vibrant public spaces by transforming unused, wasted, un-programmed space for the city is essential. This, combined with an innovative approach to creating new attractions—be it a waste-to-wonder park, or re-purposing prefab structures—helps to do 'more with less'. Developing spaces underneath flyovers in Coimbatore near Valankulam Lake was one such approach which showcased how unused, wasted and un-programmed space can be re-purposed, and can be developed as a new attraction in the city.

Open space is something that is not missed– till it's once created. Once a new open space or a public realm is created with host of activities, it becomes so integral to the lifestyle of the place that it is difficult to imagine the place without it. All such spaces created in our dense urban centres soon become popular with morning-walkers, nature enthusiasts, birding groups, fitness groups, and develop a self-help mechanism to keep themselves active, clean, and fiercely protected by resident groups. The challenge is to first identify the opportunities and create the basic infrastructure to catalyse all derelict spaces in the city to become vibrant active public spaces.

Oasis Design Inc manifested this approach in the design of J.M.Road and F.C. Road in Pune, which were designated as one-way streets. These streets offered great potential and possibility of reclaiming space along the road and repositioning them as destination public spaces on the lines of Orchard Road, Singapore. The roads were designed to create cycle tracks and wide pedestrian plaza spaces to



Before and after images of spaces underneath a flyover bridge in Coimbatore

allow people to walk around safely. Each street was being treated as a public open space that integrates all the public land-uses adjoining the street, whether it is a park, religious plaza, destination places, landmark buildings, heritage objects, retail shops, or any other, to create a cohesive, all-inclusive and connected public realm for the city.

Health is not only physical but also encompasses mental health issues. Public open spaces where one can see other people and also be seen is extremely critical for high density neighbourhoods. The view of open expanse, vista views, proximity to water, plants, butterflies are all valued natural assets of the new habitats we create.

A new systems approach that allows the landscape design to incorporate all the hues of a public open space—be it around transit, or around natural easements—railways, HT lines, drains, etc., to create a connected green-blue network that should underpin all the different urban development in the city.

One such attempt was made while designing the South Delhi Greenway. Mainstreaming ecological restoration of dirty storm water drains to transform the 12.5 km-long Barapullah drain into an ecological corridor. This project initiative plans to reclaim nearly 700 acres of open space for the south of Delhi. Planned to address the problems of solid-waste management, waste-water pollution and storm-water management, the South Delhi Greenway project aims to also showcase the ecological solutions, while using a place-making approach to create a vibrant new public realm for the city. The project aims to create the city's first permanent car-free cycling and walking corridor, offering critical first-last mile connectivity to and from the metro-stations and bus-stops. Connecting five of the seven ancient cities of Delhi, apart from linking up tourism sites like the Bahai Temple, Qutub Minar, Dilli Haat, Garden of Five Senses– this parkway shall also become Delhi's tourism spine allowing people to experience nearly a thousand years of the city's history, all within 10-15 km distance. With the help of specialized natural bio-remediation techniques, the parkway shall use decentralized biological wastewater treatment facilities to clean up the sewage water polluting the drain. The presently dirty, foul-smelling drain shall be transformed into the city's ecological corridor restoring and regenerating the region's riverine ecology.

ECO-SYSTEM SERVICES

The eco-system services approach as a new tool that values the holistic value of benefits that the city can accrue with the help of a sensitive landscape approach, is fast gaining acceptance to bring about the necessary policy changes to set up enabling framework.

THE RESILIENCE PLAN

The Resilience Plan is something all cities need to focus upon, especially with the new global pandemic outbreaks and freak weather events– all cities need to focus on becoming self-sufficient and less dependent on the outside

world, making the concepts of circular economy integral to the way in which the city works; all waste becomes a resource material to other processes, etc. Focus on the use of clean, green, renewable energy, closed loops in terms of local food production with innovative solutions, like aquaponics, for example. Resiliency planning can also be addressed by updating land-use codes, zoning, development standards, incentive programs, landscape strategy and other plans or policies to better prepare for likely shocks and stresses.

North Chennai is a major beach hotspot which began eroding rapidly at a rate of 3–50 m per year since the Chennai port was built, about a kilometre into the sea more than four decades ago. This, combined with storms and swells, will lead to more frequent flooding and further erosion of beach. As a part of the resilience strategy under the Chennai Mega Streets Program, beach restoration was proposed to stabilize and widen beaches, and was used as a tool to buffer coastal hazards. Beach restoration acts as a buffer against the unexpected events and restore beachfronts which can be used as a vibrant public place in a city.

Necessity is the mother of invention– in this case all the environmental and climate change problems have now forced this new ecological approach in the way we plan and operate our cities. This new approach with a big focus on solar, EV, closed loops, etc., shall not only help us reduce our ecological footprint but shall also help us make the planet more sustainable. The planet should be able to sustain all the anthropogenic pressures where the damage being done is within the sustainable limit—as we do not own the world—we have just borrowed it from the next generation.

BUILT IN FLEXIBILITY

Public spaces are best when they can be used differently, at different times of the day– catering to different activities for varied groups at varied scales. Being heavily contested, open spaces now must be smart to enable variable use– and the same space should be able to host several activities. Designed to work for weekend events, and daily practice workshops, such spaces work as social catalysts encouraging talent, competition, and events to celebrate life.

Open playgrounds can be used for big gatherings, big social events, rock shows, fashion shows, fairs, etc. Similarly, paved courts can be used for yoga, meditation and martial arts in the morning, design and pottery workshops in the daytime, dance and music in the evenings, then double up as event space on weekends to host cultural dance, music, martial arts festivals during the weekends, or even new interesting concepts like co-working spaces in the landscape.

COLLABORATIVE EFFORT

Design for the community involves many discussions and group decisions, and therefore, the ability to collaborate is an important skill. Collaboration helps understand the bigger picture and prevents getting stuck within processes, while trying to find perfection in our design. When whole arrays of complementary yet contrary fields are woven together, the result is a more comprehensive and an efficient design. Collaboration between consultants is one aspect, public consultation is another, which not only acknowledges the desire for humans to have a say in decisions that affect their lives, but it also provides this opportunity for the affected people (and interested parties) to do the same.

Aapki Sarak, Malviya Nagar, Khirki Residential Colony was one such project that addresses both these aspects. Regular consultations were conducted between the consultant and the locals to develop the pedestrian and NMT accessibility plan in the neighbourhood, which was served by various public transit systems. The project looks to bring about macro-level systemic change in terms of public transport network connectivity, pedestrian-friendly environment as well as micro-level change in user behaviour, vehicular dependence, and site-specific physical obstacles.

Also, under Chennai Mega Streets programme, extensive public consultations and collaborative meetings with various experts were conducted to inform the design. The site was analysed in different layers– for instance, different layers of transport like vehicle movement, mass transit network, pedestrian network, freight movement, port activity, etc., to reach to a deliverable plan that addresses various stakeholders across the entire gamut. Apart from this, experts from NCCR and PondyCAN were brought on board to discuss the beach restoration strategy and later meetings were held with concerned government authorities for their consent. Meetings with local cyclist groups, hawkers and schools were also organized which informed the pedestrian and cyclist infrastructure.

DESIGNED FOR CHANGE

Over time, cities evolve and the same space should be able to be repurposed with time to address various activities within the city. The approach while designing an open space should be such that it acts as a catalyst for activities and is not over-designed. This, in long term, ensures that a space dwells into a place and then into a destination and value is added to a place over a period. One of the approaches to ensure the ability of a space to change over period is to use prefab and precast structures.

The changing paradigm of landscape urbanism in India appears to offer a new way to consider the complex urban condition; one that is capable of tackling infrastructure, water management, biodiversity, and human activity; and one that asks and examines the implications of the city in the landscape and landscape in the city.

It offers an approach which draws from multiple disciplines to promote a forum in which the negative consequences are understood and avoided. It celebrates uncertainty, underlying complex processes, and promotes green infrastructure instead of grey in our contemporary urban conditions, to regenerate local biodiversity to achieve environmental resilience.

View of the promenad along the beachfront, Chennai

Akash Hingorani and **Sujata Hingorani** are the founding partners of Oasis Designs Inc. at Delhi. It is a consultancy firm focused on creating nature-oriented urban public realms in urban design, master-planning, architecture, and landscape design.

Envisioning and creating new public destination spaces in cities, reclaiming derelict landscape spaces and transforming them into usable public common areas is the central mission of the firm.

Using a place-making approach to reimagine public spaces around transit, storm water, ecology and heritage, and then to transform them into people-friendly usable public realms is their focus in their projects– parks, waterfronts, streetscapes and may others. The awards won by them include the prestigious IIA Architect of the Year Award for Landscape in 2012 and in 2018. Pioneering sustainability concepts into mainstream practice, the firm also engages in working for critical policy interventions in the fields of storm water management, open-space, transit-oriented development, multi-modal integration at transit stations to bring about a systemic change.