



Newsletter – July 2023

From our Desk

BK&A on Natural ventilation

Summer in Chennai has become increasingly hot due to climate change, it has never been more critical to build our knowledge of Natural Ventilation. Vernacular houses worked best due to their planning strategies of open spaces, verandahs, courtyards, sloping roofs and more. In a hot humid climate like in the southern region of India, analysis and implementation of wind direction is of most importance as it gives maximum thermal comfort to the user. Despite the high temperatures we face every year during the summer, we can achieve comfort through the wind movement.

Good designs utilize existing natural features to improve the quality of living. Maximum optimization of natural ventilation through design features of doors, windows, verandahs, courtyards and more increases the internal cooling of the building without any Air conditioning. This will drastically reduce pollution and can combat climate change. Therefore, regardless of the place, natural cross-ventilation in houses is as essential as breathing is to humans.

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Recent Highlights

Solutions in A Sea of Problems: An article on the ongoing flood crisis in Chennai by Jacob B Jacob in The New Indian Express

The Indian Express, the coveted national news media outlet published an article in 'The Chennai Express' and its website New Indian Express featuring Dr Benny Kuriakose on June 8th, 2023. The article talks about the ongoing flood crisis in Chennai and interesting measures that can be taken to combat the overflowing of water. It also details a personal experience of the designer during the heavy November downpour of 2022 in Chennai. The conservation specialist who has quickly become one of the most prolific and sought after design consultant in the topic of indigenous architecture also touches on the sustainable planning concept of 'The Room for The River' implemented by the Dutch. The article briefs on the aftermath of Pallikaranai marsh which has shrunk to almost one-tenth of its size over the decades.

DAY'S DIARY
 Michelangelo's art
 Michelangelo's statue of David is believed to have been installed on this day in 1504 in the cathedral of Florence

COMMISSION
 It was commissioned in 1501 and was moved to a public square outside the Palazzo Vecchio. The sale of civic government art in Florence is the Palazzo Vecchio Square

ABOUT THE STATUE
 Carved from a single block of white Carrara marble, the statue is reportedly the only work by Michelangelo that is still in its original state

RECENT HISTORY
 On November 12, 2001, a flood of water from the roof of the David was believed to have damaged the statue of Florence Cathedral, the same day only



File pictures of 2015 floods | EXPRESS

Conservation architect Benny Kuriakose talks about the urgent need to connect waterbodies to the sea and elevate floodplains in the city

JACOB B JACOB

BENNY Kuriakose tucked his *lungi* to the waist and dived out of his apartment in Kotturpuram into the road to fix the concrete slab on the pavement that collapsed in the annual fury of the northeastern monsoon. It was November 2022 and dawn was yet to break over the city. Almost an hour was spent by the conservation architect and the apartment caretaker in the perennial downpour to place bricks over the broken slab spilling out sewage-laden water. Strong winds whipped against the windows in the dotted twinkle of the streetlights, the water on the slope rose to over a foot. The rainwater was trickling into the Adyar River beyond the apartment building.

"If an overnight spell of rain is enough to inundate the streets, what would happen once the sea level rises?" mused the advocate of vernacular architecture. Against this backdrop, climate scientists predict the sea level will gradually rise by a metre or even two by 2100.

"It's time to act. Several low-lying areas could be spotted across Chennai and other cities. Climate change is only making flooding worse. If we do not act now, the landmass will soon be below the flood level. Low-lying areas and floodplains must be elevated," says Benny.

In cities across India, waterbodies are almost full to the brim. The Greater Chennai Corporation's (GCC) stormwater drain (SWD) project was envisioned to channel the rainwater as it gets emptied into nearby waterbodies and reduce inundation. But what happens when all the waterbodies get choked? In an attempt to avert any future calamitous events, Benny expounds a meticulous approach that would connect waterbodies to the sea to facilitate a mellow outflow.

Making room
 There has been a significant reduction in the area of the waterbodies and the terra firma. The Pallikarai

Solutions IN A SEA OF problems

ranal marsh, for instance, has shrunk to almost one-tenth of its size over the decades. Landfills and industries have cropped up on the marsh over time, adding fuel to the inundation worries. Even the catchment areas of the marsh in Velachery and Madipakkam have been eaten up by new constructions.

As a result, the rainwater, which earlier found ample room to flow out, tends to inundate the land, making it harder for itself to empty into waterbodies. Constructions on areas vulnerable to flooding should be avoided at all costs, says Benny.

Between 2006 and 2015, the Dutch redesigned their cities, historically prone to flooding, by implementing the sustainable planning concept of 'The Room for The River. Enough room was created for rivers to flow, and the spatial aspects of the waterbodies in the project were improved. He highlights that such an initiative to create areas and increase



river conveyance to facilitate water flow without restraint is absent in our cities. 'Zones' could as well be created, which, in the dry seasons, could be used as playgrounds or parks.

"We need to be in a position where we will be able to predict the intensity of the rain. The low-lying areas must be mapped out beforehand. For instance, 10 cm of overnight rain lashes parts of the city. We should be able to predict how much rainfall Adyar or Velachery would receive, and act accordingly," says Benny. Such a system, he recalls, is utilised in several European countries. It becomes handy while identifying beforehand the low-lying areas along the banks of rivers. The only way to unplug such areas is to pump out the rainwater in excess. "Unlike older times, floods have become an annual event and the sudden fluctuations in climate are fuelling irreparable consequences. Do not even think of piecemeal solutions to tackle the crisis at

Do not even think of piecemeal solutions to tackle the crisis at hand. Connect waterbodies to the sea, elevate floodplains, and create areas and enough room for water to flow.
 Benny Kuriakose



hand. Connect waterbodies to the sea, elevate floodplains, and create areas and enough room for water to flow," he reckons.

Indigenous ingenuity
 Throughout his career, Benny has been advocating indigenous architecture to tackle the climate crisis. Western architecture abounded in wide-scale use of glass and facades let in heat impetuously. Adopting such international designs exacerbates climate breakdown. Instead, thermal comfort or passive indigenous methods such as cross ventilation to keep the room cool should be promoted in India.

"It is not time yet to assess the stormwater drains in Chennai. We need to wait and see if the network of drains withstands the monsoon spell. As a preparatory measure, the authorities should complete the project in time to avoid a flood-like situation this monsoon," says G Sundararajan of city-based NGO Poovulagin Nambargal. Climate change has become the new normal, says the environmentalist, underlining the need to adapt and tackle its adverse effects. "It is quite likely that the waterbodies will be full to the brim as time goes by. The fight to reclaim our landscapes from climate atrocities should begin at household levels. Rainwater harvesting is still being overlooked. Ponds and lakes need to be created; the former could be maintained at household levels," he adds.

J Radhakrishnan, who recently took charge as the commissioner of the GCC, told *TNE* that the possible inundation events will be addressed comprehensively for a permanent solution. "Unfinished works are being expedited to tackle any possible events of inundation. We are also identifying areas that are prone to waterlogging," says the GCC commissioner.

Before signing off, Benny recalls the post-disaster rehabilitation project he carried out in the tsunami-ravaged villages of Tharangambadi in 2004. Fisherfolk families residing along the coast were relocated, and damaged buildings were reconstructed. Most importantly, the ground level was raised by about 2.5 metres above the sea level, recalls Benny. Elevation, restates the architect, is the buzzword in bypassing flood-like situations. Since planet B is yet to be discovered, it is always better to be on the safer side.

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Automation Workshop: Insight into the latest technology designed for modern homes led by M R Krishnan

On Jun 22, 2023, The team attended a workshop on Automation technology held in the office. The presentation led by M.R. Krishnan, the Executive Director of Adtech Systems, which is a Security Software company with an estimated 105 employees; and founded in 1992. This workshop was an insight into new security systems such as a number lock that can be opened using a passcode, remote and mobile operation for all appliances, mood setting based on time and day, and much more. The team got to understand how to elevate the clients' requirements using these smart technologies. Different security systems for different building typologies were explained. The workshop concluded with a demo of a model house and how the mood lighting was operated via an app on the phone.

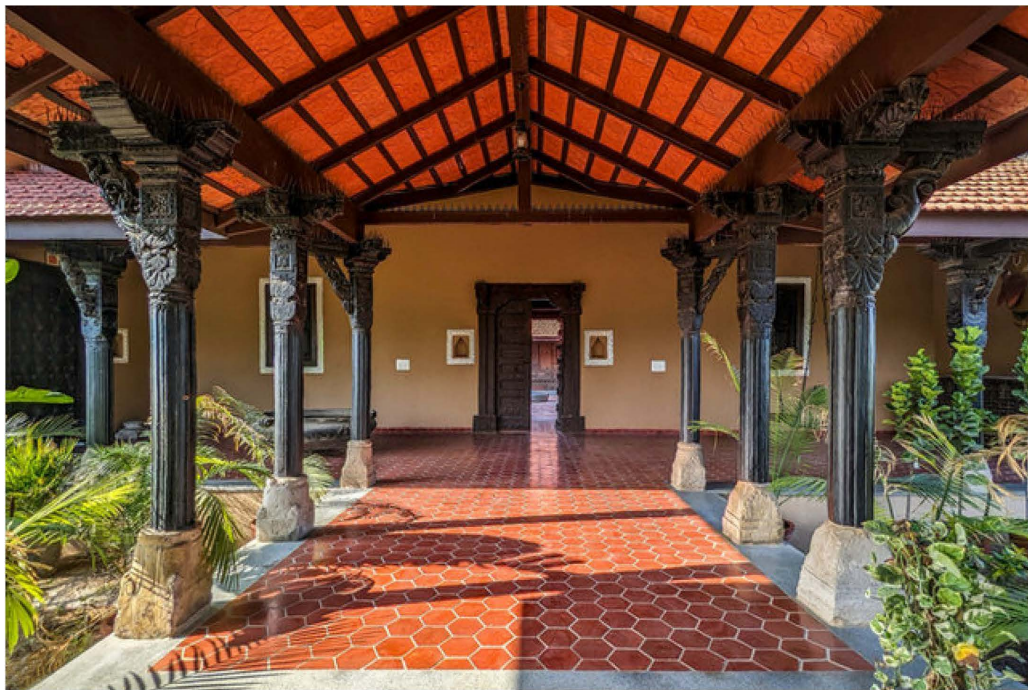


Meet Our Designs

Anyor Residence

The residence of Asthik and Sujan located in Gujarat named 'Anyor Residence' is a melting pot of Gujarati and South Indian architecture. The project was done during the COVID-19 pandemic period, with a minimal number of site visits. Despite this, lots of hard work and dedication from both the client and the team, along with the strict following of design details, created a space that is both functional and aesthetically pleasing. The residence is meticulously designed with elements and materials from the south such as Mangalore tiles for the roof, which catches the attention of the viewer at first glance.

[Learn More](#)





Blog Spot

Latest Blogs to Explore



Courtyard – The Beauty and Functionality

This blog written by our summer intern Pratistha Jagannath details the versatility of Courtyards. Read about the various types of courtyards used in different typologies of buildings. Although the use of courtyards has diminished in recent years, many modern homes have started utilizing a traditional courtyard in contemporary ways.



Mahabalipuram - The Seaside Art Hub

Learn the interesting history of the architecture of Mahabalipuram written by our inhouse photographer Naseef T.P. This beautiful sculptural hub holds more than just years of artistry on craftsmanship from back in the day, it also houses the history of our ancestors. Mahabalipuram is history reincarnated and a great reminder of the perfection achieved by craftsmen from centuries ago.



Light, Ventilation, and Design Features in School Design

Read on how natural light and ventilation affects an institutional space. This blog is a design guide on how to optimize the existing natural elements into School designs to achieve the best outcome. Read more on added design features to enhance the student experience in a school. This can be brought in by introducing signages, colours, milestones and more.

What's New?

Visit to Marble Showroom

The summer interns of 2023 attended the opening of Alliance Granimarmo, a marble showroom at Sholinganallur on June 17th. The interns got an insight into different flooring materials and saw a variety of tiles ranging from quarts to different marbles. They received detailed intel on the making, finishes and application of the tiles. Sourced from their plant in Tada, Andhra Pradesh the company specializes in procuring and processing natural stones such as marble, granite, and limestone. This visit helped the interns understand the various different materials in the current market.



Bonding over Coffee

Our team enjoys two coffee breaks each for 15 mins every day, it is an excellent bonding experience created by sharing snacks and enabling conversations apart from work. It promotes a healthy lifestyle while balancing any distractions during work. Taking some time off from work is a proven strategy to increase productivity. Every team member takes part in the coffee break despite deadlines. Conversations on life outside of work are enabled and it is a fun way to catch up with peers. Recently we also celebrated the 22nd birthday of our Intern Devika by cutting a cake during the coffee break.



“The wind doesn't know that there is a person lying on the floor, it will not take a path accordingly. Which is why it is important to optimize our design in accordance with the wind movement”