

LANDSCAPE FOUNDATION
STUDENTS' DESIGN COMPETITION 2015 SEASON 8

WATER

precious in design

Since pre-historic times, water, the world's most important natural resource along with the air we breathe, has been responsible for the birth and death of civilizations. Its strong relationship with culture has manifested itself over millennia in varied forms of all scales and types. In the Indian subcontinent, water acquired a deep spiritual, religious and philosophical meaning across cultures and religions. Rivers and lakes with ghats, pools and ponds inside forts and gardens, stepped wells, and tanks in religious precincts are some of the historic manifestations of water which are deeply revered in Indian culture. Water has intrigued designers over the last two centuries or more, inspiring them to come up with new and innovative approaches towards its meaning in landscapes all over the world. Water has been an integral part of traditional practices of natural resource management across all regions of India, conserving its quantity and maintaining its quality.

However, in the last century, rapid population growth and unchecked urbanization, coupled with top-down development and insensitive planning policies and design approaches have caused great stress on our water resources.

Water - Precious in Design - Landscape Foundation Students' Design Competition 2015 invited students to explore contemporary and aesthetic manifestations of water at different scales in the Indian context, that reflect contemporary attitudes towards design, enjoyment, interpretation, health and well-being, and most of all, conservation keeping in mind its utmost value as a natural resource.

TOTAL NUMBER OF ENTRIES RECEIVED: 68

JURY MEET: 28th October 2015 at School of Planning & Architecture, New Delhi



LEFT TO RIGHT | Dr Priyaleen Singh, Nandita Parikh and Martand Khosla

THE JURY

Dr Priyaleen Singh is a Professor in the Department of Architectural Conservation at the School of Planning and Architecture, New Delhi. She has a Masters degree in both Landscape Architecture and Architectural and Urban Conservation. She was awarded the Charles Wallace India Trust scholarship to do her MA in Conservation from Institute of Advanced Architectural Studies, University of York, U.K. and subsequently did her D.Phil from the same institute on 'Changing Attitudes to Design with Nature in the Urban Indian Context'. As a practicing Conservation architect and a Landscape architect she has worked on several Urban conservation and Historic landscape conservation projects.

Nandita Parikh co-founded NMP Design with Minesh Parikh in 1994 after working with Shaheer Associates and The Design Group, New Delhi for few years. The firm has to its credit many projects of diverse type and scale across India and sites in Kabul & Kathmandu. It has sustained a collaborative partnership with M. Paul Friedberg, landscape architect based in US for over two decades now. Nandita has also been involved in academics for over a decade now as a visiting faculty at the Department of Landscape Architecture at School of Planning and Architecture, New Delhi.

Martand Khosla graduating from Architectural Association in 2001, became a partner at Romi Khosla Design Studios. He has designed a number of projects ranging from playgrounds for children, to eco-friendly mud architecture, low cost factory workers housing, high end villas in Delhi and Bhutan, as well as institutional buildings and corporate offices throughout India.



LEFT TO RIGHT | WINNERS 2015 — Krupa A. Shah & Ipshita M. Karmakar | Chanakya Rajani & Mohd. Adil Hussain | Lourdu Rajulton A., Abhinaya Gnana & Vinola Hilary J. | Nayruti S. Mistry | V.M. Juneza Niyazi | Gaurav N. Kotak, Saurabh Mundhra & Tarun Sankhla

THE RESULTS

FIRST PRIZE

Restoring Water

Krupa A. Shah & Ipshita M. Karmakar
B. Arch IV Year, Kamla Raheja Vidyanidhi Institute for Architecture, Mumbai

SECOND PRIZE

Flowing City - Reviving City Drains

Chanakya Rajani & Mohd. Adil Hussain
B. Arch IV Year, Faculty of Architecture & Ekistics, Jamia Millia Islamia, New Delhi

THIRD PRIZE

Of Drains, Plants and Other Things

Lourdu Rajulton A., Abhinaya Gnana & Vinola Hilary J., B. Arch 2015 & B. Arch IV Year, RV College of Architecture, Bengaluru

SHRIYA ANAND AWARD

Purnuddhar: An Exemplary Settlement for Water and Hand Block Printing Craft, Balotra, Barmer

Nayruti S. Mistry
B. Arch 2015, The Maharaja Sayajirao University MSU, Vadodara

SPECIAL MENTION CERTIFICATES

Urban Bishti

V.M. Juneza Niyazi
B. Arch V Year, RV College of Architecture, Bengaluru

731 Memorial

Gaurav N. Kotak, Saurabh Mundhra & Tarun Sankhla
B. Arch III Year, Lokmanya Tilak Institute of Architecture and Design Studies, Navi Mumbai



Restoring Water

Krupa A. Shah & Ipshita M. Karmakar

B. Arch IV Year, Kamla Raheja Vidyanihi Institute for Architecture, Mumbai

A site of sewage treatment plant gets remodelled for public use with new innovative ideas and design solutions like solid settlement tanks, anoxic tanks, wetlands, thus keeping its functional component intact but at the same time transforming in a vibrant space which has high educational and environmental value.

Mysore is a tier-two city situated in the southern part of India. The sewage treatment plant at Vidyaranya in Mysore handles the sewage of one third of the city through the oxidation process with a municipal solid waste plant situated alongside it. The 6.5 million litres of water per day that the plant receives is purified and sent to Dalvoiy Lake further south, which is used for plantations around the area.

The idea of the project is to align all the systems on site to create a self-sustaining system that *rethinks* the idea of sewage treatment by the way of organic methods of plantation and phytoremediation. The buildings are aligned with the context by pulling the streets in to create a gridiron method of organisation, with community building activities such as organic agriculture that can be practised on the grids. The sewage treatment plant can be turned into a lake or a water park that will allow people to come in droves to experience

the plant as an educative experience. A recycling plant is introduced to the site instead of the municipal solid waste disposal landfill, which recycles plastic and glass and creates products of sale out of them. At the nodes of each of the streets, public programs are created which enable the people of Mysore to interact and visit the plant, thereby changing the perception of garbage and sewage. A live museum is placed underwater, and the path creates wide vistas and horizons signalling a new way of looking at the site.

JURY COMMENTS

The entry is a balanced and effective presentation of a very crucial aspect of waste management in a city. Through an elegant design, the proposal seeks to address the issue in a very unique and holistic manner connecting water, related ecological processes and the community use of a public space. It is a unanimous choice for the first prize.

CASE STUDY
OMEGA RESEARCH INSTITUTE
52000 GALLONS /DAY

CAPACITY OF TANKS:
SOLID SETTLEMENT TANKS: 200 cubic mtr (52000 gallons)
EQUILIZATION TANKS: 350 cubic mtr (100,000 gallons)
ANOXIC TANKS: 250 cubic mtr (52000 gallons)
WETLANDS (4 PARTS): 1 PART- 440 cubic mtr (gentle slope 1:100 and 3 ft depth) (24000 gallons part)
WATER LAGOONS (2 PARTS): 1 1200 cubic mtr (3 ft depth) (50000 gallons)

SCOPE OF LAND

The Omega Center for Sustainable Living (OCSL) is an environmental education center and natural water treatment facility built to meet the highest standards currently available in sustainable architecture, in the first green building in the United States to achieve both LEED Platinum and Living Building Challenge certification.

At the OCSL, you can observe the Eco Machine treating wastewater without chemicals and get a close-up look at the solar and geothermal systems that provide energy, heating, and cooling for the building.

SOLID SETTLEMENT TANKS:
Solid settlement tanks are the first step in the Wastewater Treatment process at the Omega Center for Sustainable Living. All solids settle out in the tanks as sludge and are injected with microorganisms to accelerate decomposition. The remaining wastewater flows out of the solid settlement tanks to the equalization tanks.

ANOXIC TANKS:
Step 2 is the anoxic tanks. Two tanks are located underground, right next to the constructed wetlands at the site. Here, naturally occurring microbial organisms use the wastewater stream as food. They begin to digest ammonia, phosphorus, nitrogen, potassium, and many other substances in the water. This process happens with very little oxygen (called either anaerobic, or anoxic) and produces a modest amount of methane gas, though not enough to harvest and use as an energy source.

When it's time for the water to move to step 4 of the process, the constructed wetlands, a splitter box evenly divides the water in half and distributes it between the wetlands.

WETLANDS:
The wetlands are three feet deep, lined with rubber, and completely filled with gravel. About two inches beneath the gravel is wastewater, which flows from the anoxic tanks, to the splitter box, to the upper two constructed wetlands. The wetlands use microorganisms and native plants, including cattails and bulrushes, to reduce biochemical oxygen demand, remove nitrogen gases, continue the denitrification process, and harvest nutrients such as phosphorus. As the wastewater flows through the wetlands, the microorganisms and plants are fed.

Once the wastewater is processed in the upper two constructed wetlands, it flows via gravity to the bottom two constructed wetlands. There it's 75 percent increase in the water's clarity and a 90 percent reduction in the water's odor by the time it is ready to leave the wetlands to move to step 5, the aerated lagoons. However, not all the water that enters the wetlands travels to the aerated lagoons. The plants absorb some of the water during the purification process in the constructed wetlands, and some of the water evaporates.

AERATED LAGOON:
From the constructed wetlands, the water is pumped into two highly oxygenated aerated lagoons. The aerated lagoons are divided into four cells, each 10 feet deep. The plants, fungi, algae, snails, and other microorganisms of the aerated lagoons are busy converting ammonia into nitrate and nitrate into harmless base elements.

There is no soil in the aerated lagoons, yet beautiful tropical plants thrive here. The plants live on metal racks and their roots extend up to five feet into the water. The roots of the plants act as a habitat for the organisms in the lagoons, and are sustained by them.

1. Polishing pond
2. Existing sewer line
3. Access routes to site
4. Vidyaya-Ananyapuram Sewage Treatment Plant

RAW WATER COLLECTION

DI-HUMIDIFICATION

CONSTRUCTION IN LOCAL MATERIALS

WATER CLEANING

PHOTOVOLTAIC ROOF PANELS

CONSTRUCTED WETLANDS

1:80 is the slope required for Wetlands (to allow gentle flow of wastewater)

RESTORING WATER
SEWAGE TREATMENT FOR THE CITY OF MYSORE

Mysore city is a tier two city that is situated in the southern part of India. The sewage treatment plant at Vidyaranya in Mysore handles the sewage of a third of the city through the oxidation process with municipal solid waste plant situated alongside it. The 6.5 million litres of water per day that the plant receives is purified and sent to Dalvoiy Lake further south, which is used for plantations around the area.

The idea of the project was to align all the systems on site to create a self-sustaining system that rethinks the idea of sewage treatment by the way of organic methods of plantation and phytoremediation. The buildings were aligned with the context by pulling the streets in to create a grid iron method of organization, with community building activities such as organic agriculture that can be practised on the grids. The sewage treatment plant can be turned into a lake or a water park that will allow people to come in droves to experience the plant as an educative experience. A recycling plant is introduced to the site instead of the municipal solid waste disposal landfill, which recycles plastic and glass and creates products of sale out of them. At the nodes of each of the streets, public programs are created which enable the people of Mysore to interact and visit the plant, thereby changing the perception of garbage and sewage. A live museum is placed underwater, and the path creates wide vistas and horizons signalling a new way of looking at the site.

DIAGRAMMATIC EXPLORATIONS:

VEDYA-ARANYAPURAM SEWAGE TREATMENT PLANT
Quantitative calculations of Sewage Treatment Plant:
Daily flow and treatment of sewage water on existing site - 1.7 million gallons of water (6.5 million litres of water per day)
Let a flow of 2.2 million litres of water per hour

The current quantity of sewage requires an area of 4500 cubic metres.
Ideally for wetlands to treat 1000 litres of water we require 1.2 sq.mtr.
The new proposed design blocks of treating 2.5 million litres of water a day locally with the help of the phytoremediation process that substitutes all the large four blocks constructed on site.
The area required for treating 2.5 million litres of water is 140000 sq.mtr.
Ideally constructed wetlands treat 1.2 sq.mtr.

PHYTOREMEDIATION

PHYTOSEQUESTRATION
WATER HYDRANT
WATER CITY

PHYTOHYDRAULICS
AGRICULTURE
WATER HOUSE

PHYTOHYDRAULICS
WATER

PHYTOEXTRACTION
WATER

PHYTOEXTRACTION
WATER

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PHYTOEXTRACTION
WATER



Flowing City - Reviving City Drains

Chanakya Rajani & Mohd. Adil Hussain

B. Arch IV Year, Faculty of Architecture & Ekistics, Jamia Millia Islamia, New Delhi

Health and wellbeing of the city is defined not only by the nature of parks and gardens but often unseen and largely neglected elements like city drains which form the core component of its hydrological framework. A sensitive and functional approach, making them living arteries, hence reiterating their crucial role in the urban landscape...

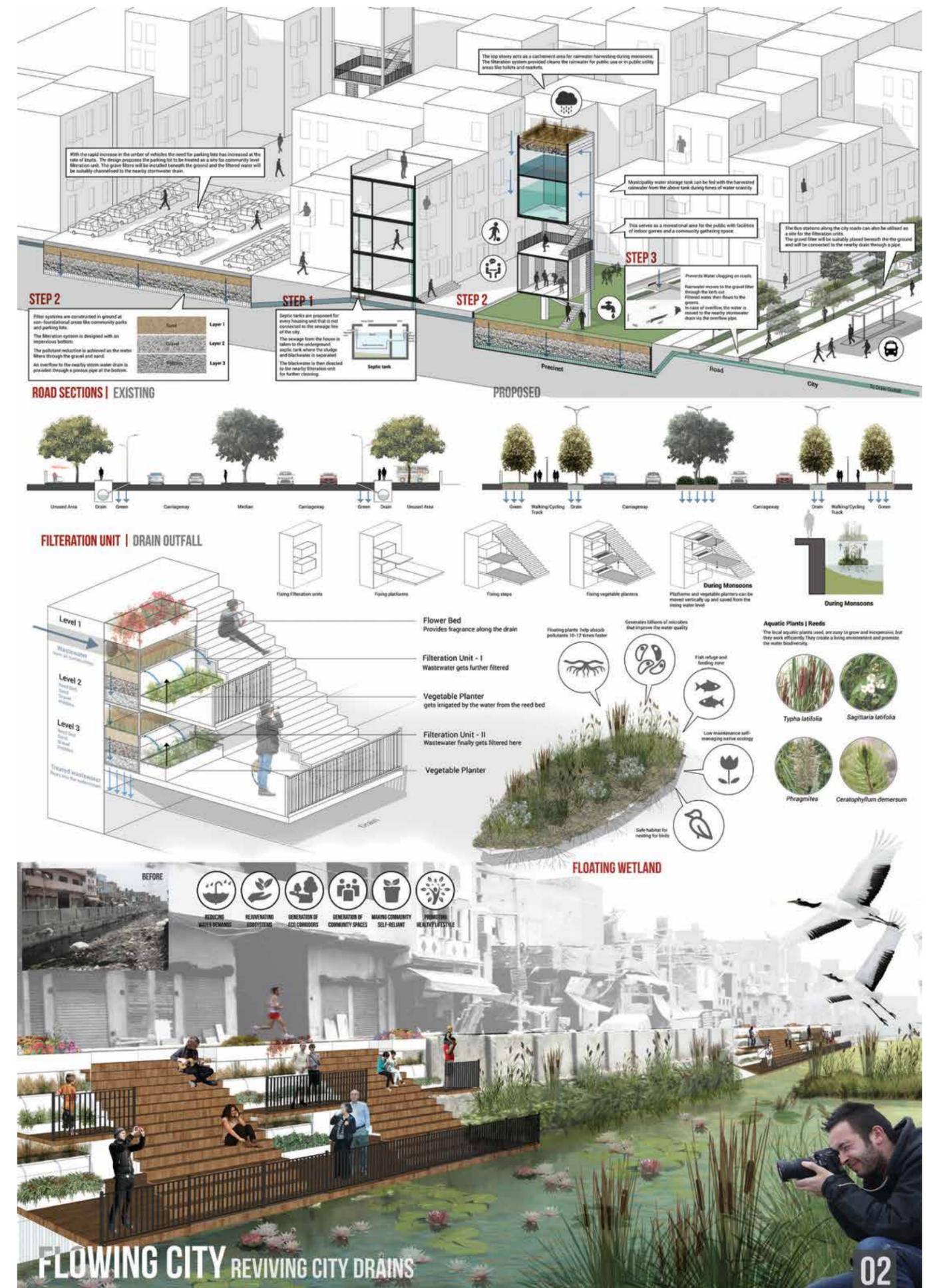
Storm water drainage is one of the most important civic conveniences in a city, but that is unfortunately neglected. The recent floods in the national capital city of Delhi have demonstrated the crucial importance of the drainage system for the city life and the lack of foresight at the level of local urban bodies. A city comes to a standstill every monsoon after continuous showers, thereby halting the city life and causing public inconvenience. The existing storm water drainage system of the city is inadequate to deal with current situation of the state and needs remediation in order to facilitate proper functioning in the future.

The project aims to revive the natural drainage system of Delhi by identifying the root causes of the failure of the existing drainage system and to give suitable remedial measures for the future. Disposal of wastes into water channels

is the primary cause of failure of the existing system. To change the situation, wastewater treatment strategies have been adopted at three major levels to reduce load on any one mechanism thereby increasing efficiency.

JURY COMMENTS

The entry, through simple and small gestures, rather than grand interventions, seeks to address the larger urban issues of city infrastructure pertaining specifically to water in drains. It translates the otherwise mundane intervention into a more refined design expression. The scheme articulates the core idea through a sophisticated and neat presentation.



3

Of Drains, Plants and Other Things

Lourdu Rajulton A., Abhinaya Gnana & Vinola Hilary J.
B. Arch 2015 & B. Arch IV Year, RV College of Architecture, Bengaluru

The defunct service lanes with non-functional drains of residential areas of the city are enlivened by an integrated scheme of urban farming, bioswales and water harvesting system. Involvement of the neighbourhood residential community in the process creates a sense of belonging and ownership.

The disappearance of lakes and the misuse of storm water channels has become a growing issue in the city of Bengaluru and the country in general. This attempt is a humble beginning to create awareness and to suggest a few possible appropriations in the locality of Fraser Town, East Bengaluru, which might serve as a precedent for other such appropriations around the country. The storm water channel, currently used as a sewer is seen as an opportunity to create connections – once the proposed metro rail station is built at the edge of the town.

To achieve this, one must begin by re-looking the function of the drain.

JURY COMMENTS

The idea of urban farming is linked with the main theme of the competition – water. The entry, in a creative way, looks at the usually neglected back lanes in the city, using them as sites of urban sustenance, engaging the community with the idea of water in a more active manner.

Conservancy lanes

Conservancy lanes are spaces between rows of houses, where manual scavengers used to clean up wastes. While the practice has become obsolete now, what remains in its place is a dumping ground of garbage that has been completely ignored by the BBMP authorities. Residents now complain about the stench from these lanes as well low or no lighting which is also increasing crime in the area.

The proposition is that these conservancy lanes may be used as kitchen gardens by the communities and maintained by them.

Community gardens though semi private, may be watered by rainwater harvested by homes and by the water in stormwater drains. Water cleaned by bioswales may also be used for these.



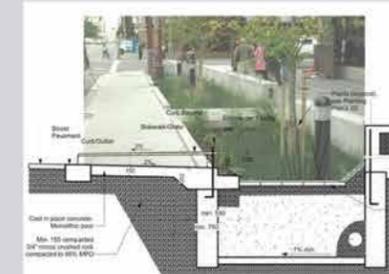
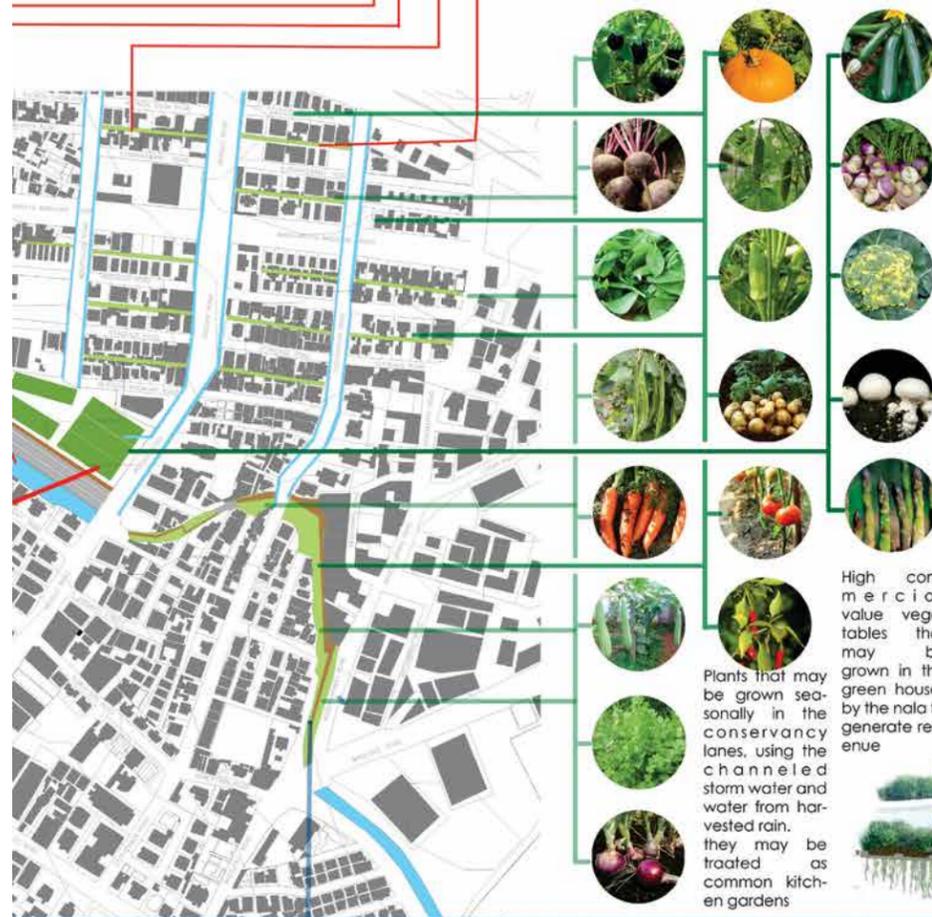
Dirty Nala - main channel



Unused / misused conservancy lanes

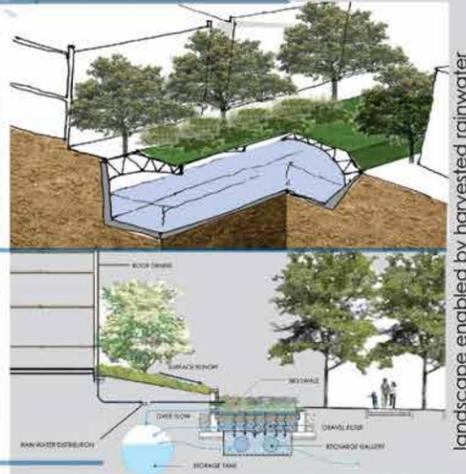


Proposed use of recycled tyres for kitchen gardens in the conservancy lanes



Bioswales are planned on the roads perpendicular to the conservancy lanes - the roads connecting within the locality, which also act as the tributaries to the NALA - which is projected to be the main source of water for the landscape planned all around the town. native fragrant plants are used in the bioswales . they also serve as aesthetic elements on the street along with low rise built seats.

The pathway over the nala - supplied with harvested rainwater, becomes the primary pedestrian connect, with vegetable plants, maintained by the communities on both sides



landscape enabled by harvested rainwater



Purnuddhar: An Exemplary Settlement for Water and Hand Block Printing Craft

Nayruti S. Mistry

B. Arch 2015, The Maharaja Sayajirao University MSU, Vadodara

A proposed settlement, sited in the arid region of the country, on a riverside is involved in the highly water-intensive craft of block printing. Proposed design approach integrates the idea of conservation of natural resources, mainly water, use of sustainable building materials and traditional construction techniques and hence, a definite approach towards reviving and promoting the craft.

This exemplary settlement is an attempt to revive the hand block printing craft by relocating the Chippa community from Balotra to Mewana-gar in Rajasthan by providing them with their 'magical sweet water' through surface watershed and catchments areas surrounding the site.

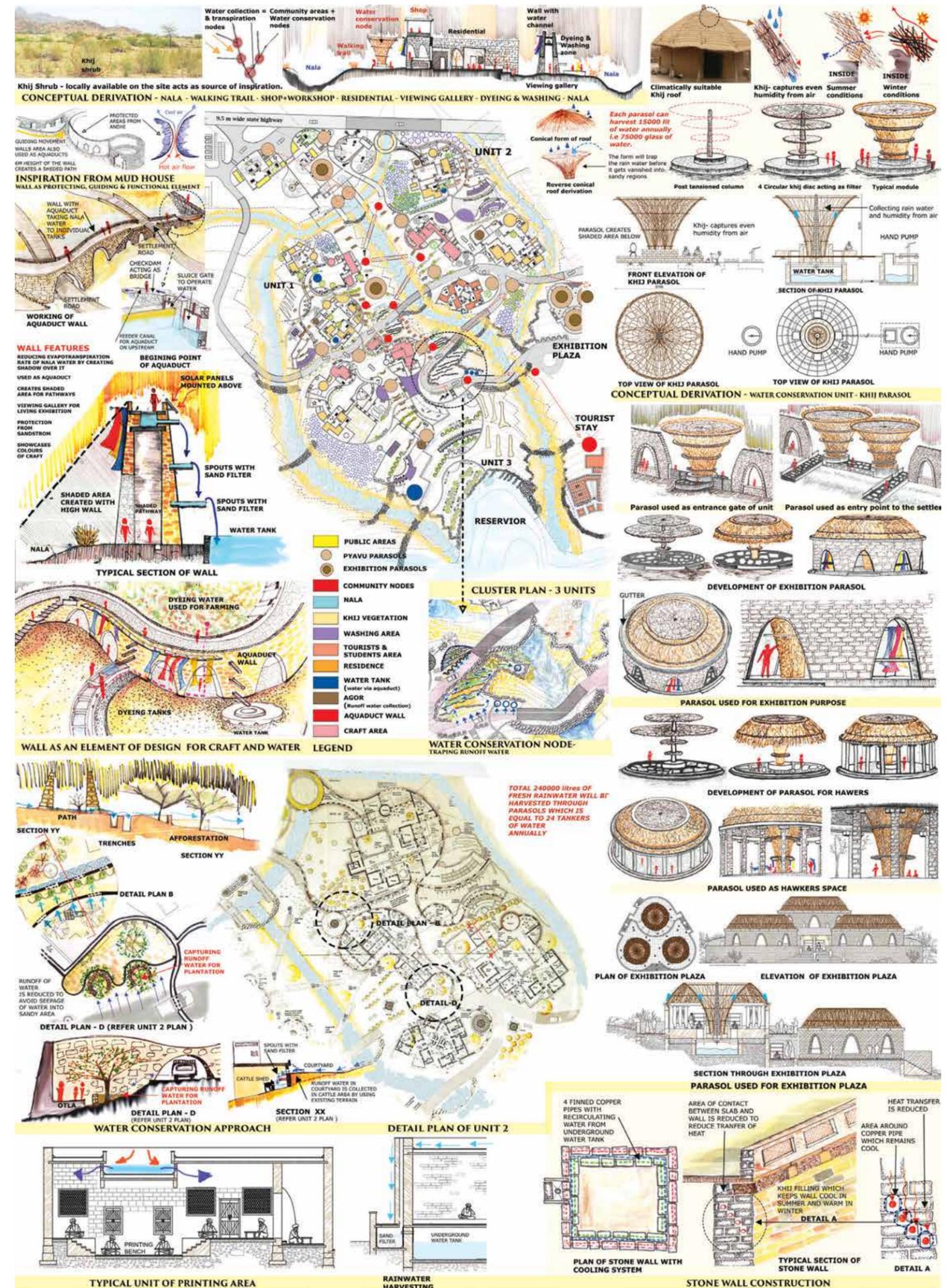
This is achieved by creating stepped check dams and site planning is derived from flora and fauna on site. Existing *nallahs* are used as design elements and road length is optimized for conservation of *khij* vegetation. Closed aqueducts on the multi-purpose stonewall carry water from the *nallahs* to workshops and residences; the rippling sound from the aqueduct forms an interesting design element and sensory experience. Taking inspiration from conical roof of vernacular architecture, water conservation units made of *khij* are derived which acts as public spaces.

The *khij* branches collect rainwater, which can be directly used for drinking purpose. The overall built environment is designed including proposal of six units, each comprising of work-place, shop and two residences.

The water system of craft and living areas are designed for zero discharge of water and the by-product craft water is reused for plantation acting as manure. The vastness and stillness of the desert settlement opens our minds towards the communal settlement, which is self-sustaining with zero energy discharge and no consumption from state grid by generating solar energy, fuel through biogas, and by providing local construction materials.

JURY COMMENTS

The entry is multifaceted, addressing the issues of water-dependent craft traditions, its cultural role in shaping community spaces, ecological concerns and most importantly the question of livelihoods and water conservation. It explores the theme of water in a rural setting, emphasizing that water concerns transgress both rural and urban settings.





Urban Bishti

V.M. Juneza Niyazi

B. Arch 5th Year, RV College of Architecture, Bengaluru

The precinct of an old pump house is remodelled as a public space with the objectives of creating awareness about the natural resource, its relationship with architecture, dealing with water as a strong visual design element and ultimately changing the perception of general public towards treated grey water which forms the main living spine of the proposal.

Bengaluru, known as the land of thousand lakes, has lost its rich water heritage to the selfish acts of man. But this is not the story of only Bengaluru but the world.

The issue dealt in the proposal focuses on the current urban scenario of water and its changed association with people as a mere commodity. *Urban Bishti* is the coming together of the old and the new systems, juxtaposing the design intent that rethinks the relationship between architecture, water and man in a contemporary context by weaving memories of the water systems used in the past. Technological advancement has led to the ease of availability of water and man overpowering the resource which has led to the change in attitude of man.

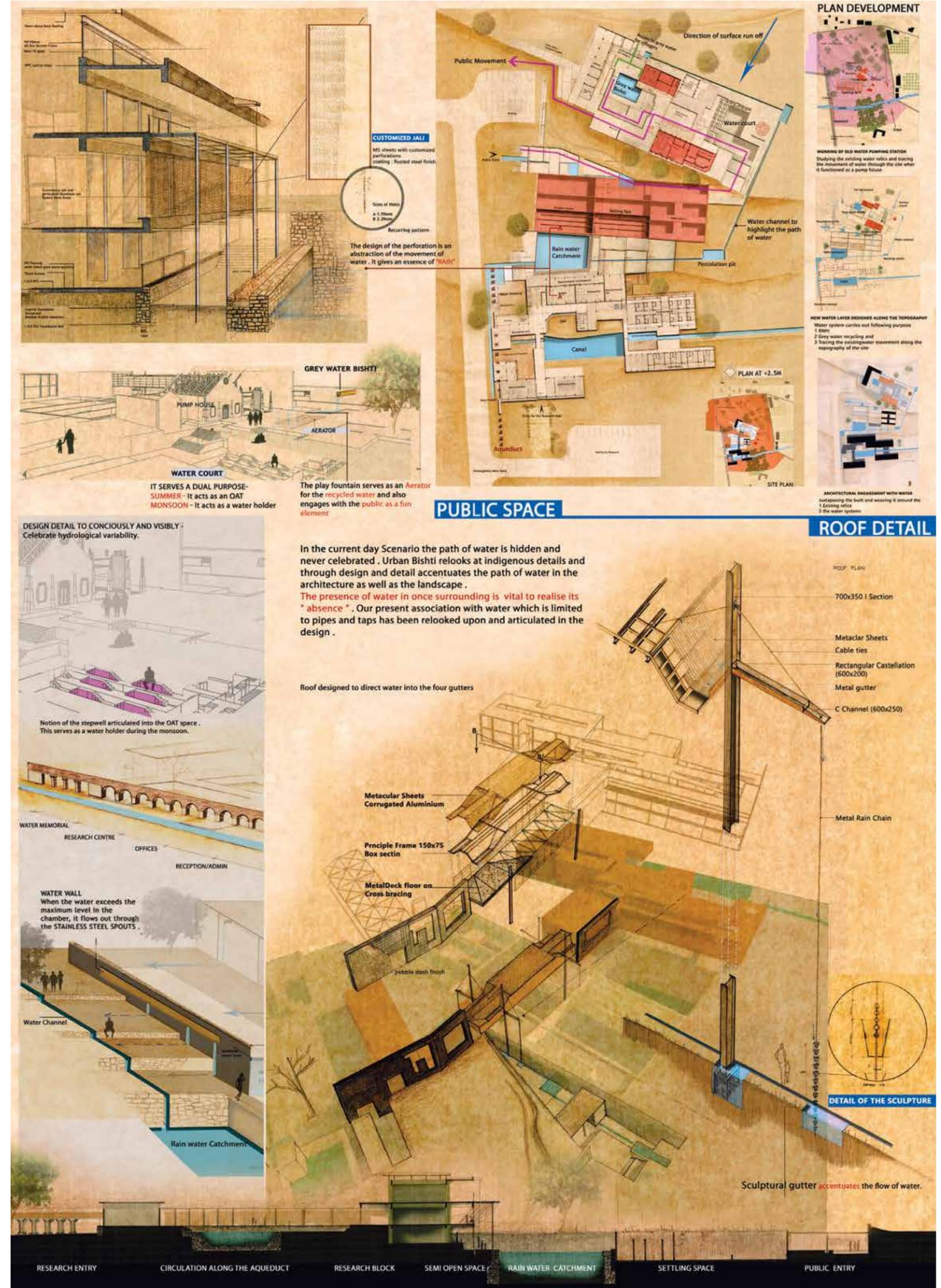
In the current water systems, technology presides over architecture, indicat-

ed by the concrete structures like the overhead tanks, sump tanks etc. which reflects the drift between water, architecture and people.

In contrast, indigenous water harvesting models are *architecturally* structured. *Urban Bishti* proposes to juxtapose *architectural place making* with the current water technology to enhance the involvement of public with the practices of conservation and management of our depleting resource. It also aims at redefining the importance of recycled water by weaving *grey water bishti* as a design entity in the public realm, targeting the stigma associated with grey water in the society. This proposal is a water-sensitive recreation hub plugged at a forgotten water heritage site of Bengaluru.

JURY COMMENTS

Bringing back the memories of the waterman, "*bishti*" takes a contemporary view on the idea of treating water from an abandoned pump station and infusing a new life in it through a clear design intent of place making. A more clear and focused presentation, especially in the design stage would have further improved the entry.





731 Memorial

Gaurav N. Kotak, Saurabh Mundhra & Tarun Sankhla

B. Arch III Year, Lokmanya Tilak Institute of Architecture and Design Studies, Navi Mumbai

The design of the memorial keeps the focus on water with number of glass fountains representing the lives lost with a low height pool and a minimalistic design, thus water itself becoming an ultimate ode to the memory.

Memorials are not a very familiar building typology in India, mostly only existent as heritage structures. Memorials enforce a sense of respect for the departed and act as symbols of fortitude of the people.

The design proposal is to create an artificial island to house a memorial of those lost to the Terrorist Attacks in Mumbai. The memorial would act as a raw reminder to the people about the attacks. The proposed memorial would not act as a structure meant to substantiate the emotions of the visitors; it remains true to its purpose by being acute, harsh and unembellished. Segregating a space to accommodate a memorial for the dead when the city faces demographic conflicts translates into a very critical issue.

The intention is to symbolise water as the spirit of those who have deceased.

The design incorporates 731 glass water fountains to symbolise the lives lost. The design aims to alter the skyline of Mumbai – not as an aesthetic enhancement but as a reminder. The proposal is strictly meant for the present official death count of 731 citizens, for there is hope.

JURY COMMENTS

The entry is an honest intent to use minimal water for the maximum effect where it symbolizes the idea of memory. It falls short of the expectation that it generated initially. A much more resolved and detailed intent could have surely benefitted it.

SITE: 18.920716 °N, 72.861190 °E. NEAR GATEWAY OF INDIA, MUMBAI

CLIMATE: HOT AND HUMID

CONNECTIVITY: FERRY ONLY (9AM - 3.30PM)

THREATS: HIGH TIDAL WAVES (AVERAGE 3.8M)

Memorials are not a very familiar building typology in India, currently only existent as heritage structures. Memorials enforce a sense of respect for the dead and act as symbols of fortitude of the people. The Design Proposal is to create an artificial island to house the Memorial of those lost to the Terrorist Attacks in Mumbai. The memorial would act as a raw reminder to the people about the attacks. The proposed memorial would not act as a structure meant to substantiate the emotions of the visitors, it remains true to its purpose by being raw and non-embellished. Segregating a space to accommodate a memorial for the dead when the city faces demographic conflicts translates into a very critical issue. The intention is to symbolise water as the spirit of those who have deceased. The design incorporates 731 glass water fountains to symbolise the lives lost. The design would alter the skyline of Mumbai, not as an aesthetic enhancement but as a reminder. The proposal is strictly meant for the present official death count of 731 citizens, for there is hope!

JETTY 0.40 m

UP →

DOWN ←

1.5m

4.30 m

2.75 m

DOWN

4.20 m

3.60 m

3.75 m

731 FOUNTAINS

DOWN

3.60 m

WALK THROUGH GALLERY

Coconut palm (Cocos nucifera)

Lilium candidum L.

Hydrangea macrophyllau

Rosa Kordeii

LIST OF PARTICIPANTS 2015

AMITY SCHOOL OF ARCHITECTURE
& PLANNING, JAIPUR1. **FLOATING DOCKLANDS**
Prerna Pathak & Shrey Dutt2. **MODERN STEPWELL**
Oshin Gajbhiye, Smriti Pandey
& Anshita KhareBHANUBEN NANAWATI COLLEGE OF
ARCHITECTURE, PUNE3. **ART REVIVAL AND CULTURAL CENTRE**
Megha Jagdish Bilgi4. **WETLAND OBSERVATORY: AN APPROACH
TOWARDS ECOLOGICAL SUSTENANCE**
Anagha Palekar, Pinal Patel & Aarti BachcheBHARATI VIDYAPEETH COLLEGE OF
ARCHITECTURE, NAVI MUMBAI5. **PANACEA FOR DROUGHT**
Drishiti Ghosh & Komal Nandrekar6. **RECONNECTING TO NATURE**
Vidit Soni, Siddharth Chhedda &
Saylee Baviskar7. **ENHANCING OFFICE ENVIRONMENT BY
INTEGRATION OF WATER AND LANDSCAPE**
Vijay B Kunchamwar & Sarang Karmarkar8. **CREATING LIVES**
Priyanka Shimpi, Mrudula Thakur
& Shreya Naik9. **ESSENCE OF PURITY**
Devika Shetty & Tanvi Yadav10. **AN EXPERIMENTAL JOURNEY TO FALLING
WATER OF PANDAVKADA**
Pratibha N Pathak, Sayali Y Pednekar
& Shweta More11. **AQUA RECLAMATION GARDEN**
Ashwini Mogaveera, Shruti Kandi
& Sampada Lad12. **OASIS.... BREAK THE MONOTONY**
Tejas Saiyya, Sneha Coutinho &
Niyati Bhansali13. **PLAY OF ELEMENTS**
Shivani Pradhan & Dhvani KariaCEPT UNIVERSITY, AHMEDABAD
14. **WATER REJUVENATION THROUGH
NATURAL SIEVES, THOL LAKE**
Sneha Singh & Akash Srivastava15. **WATER - WE PRAY, WE POLLUTE,
WE NEGLECT**
Ankit Kalantri, Pankti Gajjar & V Vinithra16. **PROTECT PARK**
Amrita Kaur Slatich17. **CELEBRATING THOL - A WATER NARRATIVE**
Divyajyoti SharmaCHANDIGARH COLLEGE OF ARCHITECTURE,
CHANDIGARH18. **KARMA**
Lidiya Joseph & Rishika Bora

COLLEGE OF ENGINEERING, TRIVANDRUM

19. **THEERTHAM**
Elsa Grace, Oshin Mariam Varughese
& Rebecca Rechana PaulD C PATEL SCHOOL OF ARCHITECTURE,
VALLABH VIDYANAGAR20. **REGENERATION OF HISTORIC CORE VIA
URBAN INTERVENTIONS**
Snigdha SrivastavaINSTITUTE OF DESIGN EDUCATION AND
ARCHITECTURAL STUDIES, NAGPUR21. **RETROSPECT**
Drupad Mukesh Ashar, Chinmay Ajay
Pathak & Shruti Vivek Pratape

JAMIA MILLIA ISLAMIA, NEW DELHI

22. **REVITALISATION OF SHAHDARA LAKE**
Mohd. Imran Ali Ansari23. **REVITALISATION OF BINDUSAGAR LAKE**
Amrita Adhikari24. **AAB-E-NISHAT**
Ishita Chandra, Vasudha Karnani &
Shamik R Laskar25. **LIFE OVER THE DEAD**
Deepesh Sangtani, Niharika Arora &
Debabrata Das26. **HANDFULL OF WATER**
Asad Jawed Ahmed & Humair Subhani27. **RESURGENCE**
Aditya Krishnan, Rizwan Ahmad Khan &
Sanobar Khan* 28. **FLOWING CITY - REVIVING CITY DRAINS**
Chanakya Rajani & Mohd. Adil Hussain29. **RECONNECTING THE HISTORICAL WATER
LANDSCAPE TO THE PRESENT - CASE OF
HAUZ-I-SHAMSII & JHARNA, DELHI**
Manish Kumar & Sonika Sri30. **AQS-E-TAJ, THE STORY OF THREE LAKES**
Syed Zeeshan Husain, Kshitij Kual
& Mueed AhmedKAMLA RAHEJA VIDYANIDHI INSTITUTE FOR
ARCHITECTURE, MUMBAI31. **WATER SYSTEMS IN MYSORE**
Vishrut Itchhaporia, Pranav Thole
& Neil Jain* 32. **RESTORING WATER**
Krupa A. Shah & Ipshita M. Karmakar33. **REVERSIFYING THE LANDSCAPE**
Shaikh Mohammed Esa
& Mohammad TalhaLOKMANYA TILAK INSTITUTE OF ARCHITECTURE
AND DESIGN STUDIES, NAVI MUMBAI34. **RECREATING POWAI LAKE**
Snehal Pundalik Naik, Simran Naresh
Bhatia & Prajakta Pradeep Sawardekar35. **MIRAGE SHELTER**
Shalaka Wani, Sahil Karlekar
& Simran Haygunde36. **HUMAN & ECOLOGY - A MELANGE**
Rajendra Kaumudi Joshi, Devendra Prajali
Marathe & Gajanan Mrunal Mule37. **ENROUTE TRANQUILITY**
Bhumi Vishwas Gupta, Harsimran Kaur
Panesar & Disha Punit Gambhir38. **TUNGARLI LAKE DEVELOPMENT**
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* PRIZE WINNERS



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