

**Wuhan Placemaking Week 2018**  
**Held on December 9 – 13, 2018 at Wuhan P.R. China**

**PLACEMAKING FOR  
SUSTAINABLE ECOLOGY OF CITIES:  
THE RE-INVIGORATION OF IRLA NULLAH, MUMBAI**

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**Production of Backyards:**

What concerns me most is the current trend of urbanization that produce more exclusion than ever before, discriminating against people and places, not just in physical terms but also on the basis of gender, religion, caste, class, race and economic status. More alarming is the damage and destruction of the ecology. This can be the result of ad-hoc development, cynicism or corruption, or a lack of a vision for integrated urban planning and a skewed market driven development model that commodities all matters and evaluates them in consumable values. Most often, these areas of neglect tend to be those that are of no monetary value in terms of real estate potential. In the case of most Indian cities, these are often open spaces and conservation of the natural areas and their integration with the public spaces is the central focus of my presentation.



In Mumbai, ecological and environmental causes have been considered by authorities as burdens on the “development” agenda, in a city that is “land – starved”. Mumbai’s governments have been poor at protecting and developing natural and open spaces, resulting in those being some of the dirtiest and most unapproachable areas. At  $1.0 \text{ m}^2$  per person, Mumbai has one of the lowest ratios of open space to people in the world: compared to  $31.7 \text{ m}^2$  in London;  $26.4 \text{ m}^2$  in New York;  $3.9 \text{ m}^2$  in Tokyo, UN Habitat standard being  $15 \text{ m}^2 / \text{person}$ .

Through initiatives like the Irla nullah project, we aim to bring the vast extent of 140 sqkm of natural assets to the forefront in order to protect them. Facilitating the right of way for these streams to function efficiently through place making will allow citizens to understand the role they play in the larger ecological scheme of the city. These nature-based solutions in the form of restored ecosystems are inherently sustainable. The key is to understand the natural areas as being a part of public realm – as a part of the public spaces system.

### **Evolving a plan for transformative, city-wide change:**

Mumbai has a large network of water channels and water courses that aid the natural storm water drainage in the city. The city authorities are apathetic towards their protection, conservation and integration with the city's Development Plan. Instead, these assets are merely looked upon to maximize construction and to accommodate real estate interests. The Irla nullah initiative addresses the abuse and exclusion of over 300 kms of watercourses, that includes four rivers within the city that have been turned into 'nullahs' or drains.

Also, It brings to light the continuing degradation of the vital 140 sq. km of natural areas of the city -- its mangroves, wetlands, creeks, salt pans, rivers, lakes, beaches, hills and forests. Sadly, the city has turned its back to this vast extent of the natural areas and considered them as a dumping ground-- both physically and metaphorically- leading to their rampant destruction and degradation.

Our central objective is the conservation of these vital natural assets; their integration with neighborhoods and the city; expanding public spaces-- both in physical and democratic terms; expanding tree cover; popularising and de-mystifying the planning process for effective participation; and promoting the idea of neighborhood based city planning. The Irla Nullah Re-invigoration project will model a paradigm shift in understanding Mumbai's ecology and build in a sustainable manner with nature and its benefits to the improve with equity the quality of life of all Mumbaikars.

## Nullah's of Mumbai:



### EVOLVING A PLAN FOR TRANSFORMATIVE, CITY-WIDE CHANGE

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This initiative addresses the abuse and exclusion of over 300 kms of watercourses, that includes four rivers within the city that have been turned into 'nullahs' or drains. It brings to light the continuing degradation of the vital 140 sq. km of natural areas of the city -- its mangroves, wetlands, creeks, salt pans, rivers, lakes, beaches, hills and forests.

The Irla Nullah Re-Invigoration Plan – part of a larger citizens' movement advocating the Juhu Vision Plan that covers an area of 4 sq. km – focuses on cleaning and turning the waters of a polluted and much-abused natural watercourse backyard and its immediate precinct in the western suburb of Juhu into a vibrant public space and neighborhood fore-court generating rich social, political and environmental dividends since these are the natural storm water drains of the city.

Imagine a scenario where Mumbaikars have easy access to over 600 kilometers of landscaped walking and cycling tracks and open spaces along the watercourses that intermingle and interweave through various parts of the city's urban fabric?

This is the over-arching vision that has manifested itself in a tangible pilot effort – the Irla Nullah Re-invigoration Project.



In Mumbai, most of the over 300km of nullahs were originally natural watercourses, or rivers. Connected to the sea and thereby the tides, these water bodies regulated ground water level and assist in dispersing water from the land in case of intense rain. These watercourses have unfortunately been abused -- becoming open sewage drains, which take our effluents out into the sea. The people living in Mumbai generally associate nullahs with dirt, filth and odor. Over the years there is little public knowledge of them being rivers and natural watercourses that defined the landscape.

This initiative addresses the abuse and exclusion of over 300 km of watercourses, including four rivers that have been turned into *nullahs*, or drains. It brings to light the continuing degradation of 140 sq. km of natural areas in the city, including mangroves, wetlands, creeks, salt pans, rivers, lakes, beaches, hills and forests, and the need to restore the symbiotic relationships among them.

Sadly, the city government has channelized them by building impervious concrete walls along their edges, thus further severing their ecological and environmental attributes, and separating them from the people.

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In the year 2013 the Irla Nullah movement was launched for the conservation, re-invigoration and re-integration of a 7.5km “nullah” in Juhu. At the time, the Municipal authorities wondered why this was important. Also, the people living in Mumbai generally associated nullahs with dirt, filth and odour. Battling such impediments, the movement continued: comprehensive plans and implementation programs were created through active citizen participation. Meetings were held in public places with posters and a ‘*Vision Juhu*’ book, communicating the project. The city officials could no longer ignore the gathered momentum: the Municipal Commissioner finally approved the project 11 months later. Ever since, people in large numbers flock the Irla nullah precinct.

The central objective of our movement was to re-invigorate the nullah, including treating the waters and arresting silt formation.

Although the area contains some open spaces, they are idiosyncratic, disconnected, and some are not open to the public. They are disparate in nature and function in isolation. The nullah itself physically weaves through the entire neighborhood as, potentially, a linear park, connecting various disparate spaces. Such networking of spaces realized the high potential of the social fabrics of different communities — fisher folk, slum dwellers, hawkers, and all other classes.

Almost 40% of the approximately 250,000 population of Juhu live adjacent to the nullah, while the remaining numbers reside within a 10-minute walk. Through this movement, we could generate an active and pulsating system of public spaces, including the nullah that would form the spine of Juhu.

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## Larger Ecology & the City:

### RECLAIMING WATERFRONTS AND EXPANDING PUBLIC SPACES

Acknowledgements for Protection of Marine Biodiversity

One of Mumbai's greatest assets is its coastline which forms a series of unique and picturesque waterfronts. Unfortunately, these have become the backyard of the city and degenerated into its biggest dumping ground.

Reclamation, sewage disposal and encroachment have ravaged the waterfronts.



WHAT WE DON'T SEE AND REALIZE AS OUR PUBLIC SPACES ASSETS:

482.50 KMS OF TOTAL AREA
140 KMS OF COASTLINE
16 KMS OF BEACHES
40.7 KMS OF RIVERS COVERING 1.5 SQ KMS
00.25 SQ KMS OF CREEKS
48 KMS OF 'NULLAHS'
303 KMS OF POTENTIAL PEDESTRIAN AVENUES ALONG ROADS
64.31 SQ KMS OF FORESTS AND HILLS
155 ACRES OF 51 RAILWAY STATIONS



The archipelago of Mumbai City is 47 km long, with an average width of 10 km. The city's population is over 14 million, and people have little access to open space. Imagine this: Mumbaikars with access to over 600 km of landscaped walking and cycling tracks, and open spaces along watercourses that interweave through various parts of the city's urban fabric? This is the vision of our collective effort: the Irla Nullah Re-invigoration Project. It is a vision that would transform Mumbai's landscape.

Importantly, this project exemplifies the need to involve diverse stakeholders in the people's "Right to the City", and their role in scripting urban growth. This requires systemic change in city institutions, and how people participate in the democratic process. The challenges are significant, and include the conservation of vital natural assets; their integration with the urban landscape; expanding public spaces (both physical and democratic); expanding tree cover; demystifying the planning process; and promoting the idea of neighborhood-based city planning. The project will model a paradigm shift in understanding Mumbai's ecology and use nature-based solutions to improve the quality of life for many more Mumbaikars.

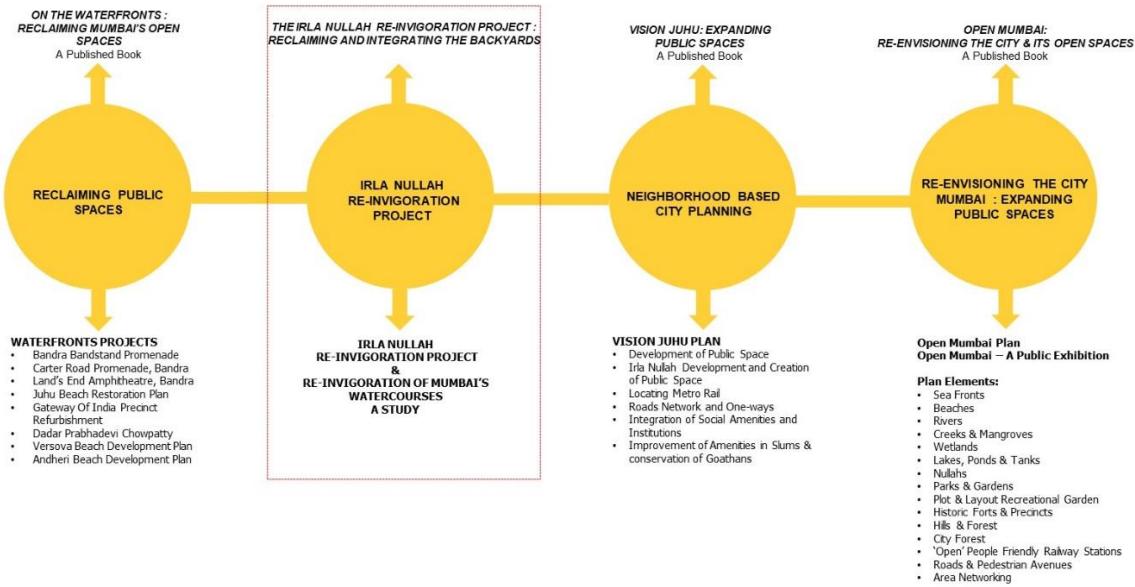
### **Integration: The Irla Nullah Re-invigoration Project:**

Integration with the DP -

It is for the first time that DP 2034 has designated the natural areas as an independent reservation: "NA". The Irla nullah project are significant challenges with sustainable alternatives to the current development plan.

The current mindset of planning has to be challenged. Sustainable ecology and environment has to be the central aspect of city development plans, prepared with people's participation. Our mission is to facilitate the rejuvenation and integration of open spaces, the natural areas and the wider city through concerted placemaking effort..

**NEIGHBOURHOOD PROJECTS TO A CITY-WIDE MOVEMENT**  
22 years and continuing



It is through the Irla nullah project we can re-envision Mumbai our city with streams of open spaces and water, defining a new geography. We can we restore these nullahs to their past glory, and contribute towards the ecological

regeneration of these natural assets. We can simultaneously break away from large monolithic spaces and geometric structures of parks and gardens into fluid stream of linear open spaces, meandering, modulating and negotiating varying city terrains. We can re-design nullahs to be linear parks? This way a new structure of open spaces and watercourses would relate to and integrate with many more areas and people across neighborhoods and the city. These are some of the ideas that the Irla nullah project evokes.

\* Irla nullah... When there's a participatory design space, what it means by government is  
I feel it is interpreted as the collective power of the people of Irla

Printed: March 2012

## Juhugiri. Pyar se.

Free open space; add至少 3 local markets  
Create 10 km of multi-use linear walking along Irla nullah  
Integrate open spaces with institutions & amenities  
Re-align & integrate Metro rail network with public spaces  
Provide green infrastructure for biodiversity & resilience  
Provide civic amenities for gardens, development plans  
Form a model for neighbourhood planning, participation & governance

### Vision Juhu Expanding public space

Karma Bhava Vidyamandir Institute for Architecture • PVR Cinemas, Aaranya • Mumbai Woodcraft Centre  
Basant Kumar Patel Foundation • PVR Cinemas • Mumbai Woodcraft Centre

This site is a perfect candidate for the expansion and re-fit in public meetings from its present state. It is proposed to demonstrate the movement for the involvement of the residents in the planning process of such public projects in cities.



The Vision Juhu Movement has been rooted in public participation and democratic planning ideals.

Irla nullah manifested therefore when citizens stood up against the large numbers of open land devoids and instead took up their right to open spaces in their neighborhood.



### Juhu residents fight for access to playground



### THE IRLA NULLAH RE-INVIGORATION PLAN

Importantly, this movement and the project are a unique example of the need for waging citizens' struggles for exercising their Right to the City and in scripting its current and future growth and take on several challenges.

A plan that networks and integrates the nullah into the neighbourhood as well as with the multiple amenities and institutions in the precinct through green streets and roads that promote a walking culture along the nullah as well as within the Irla precinct.

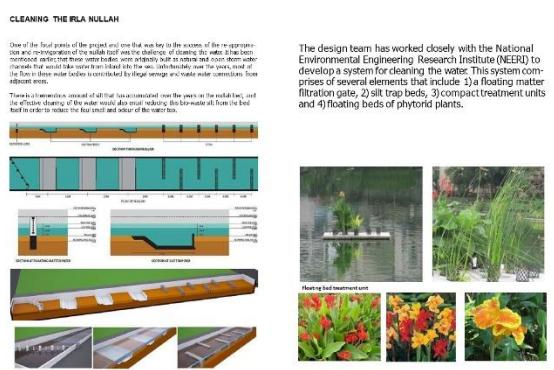
These include the conservation of a vital natural asset; its integration with the neighborhood and the city; expanding public spaces – both in physical and democratic terms; popularising and demystifying the planning process for effective participation in conceptualisation and implementation process, primarily effecting a paradigm shift in understanding of sustainable ecology and building with nature and its benefits to the quality of life and environment.

Phase 1 of the project includes the development of three citizens' parks namely the Kishore Kumar baug, Kaifi Azmi Park and the Childrens' Forest Park, a public, open air amphitheatre - the Vijay Tendulkar Rang Manch, walking and cycling tracks along the nullah complete with lighting and landscaping, and most importantly the cleaning of the waters in the nullah itself.



To begin with, public campaigns to promote public dialogue and participation in decision-making was necessary. Mapping of the area followed: documenting different conditions that exist, including the various changes that have taken

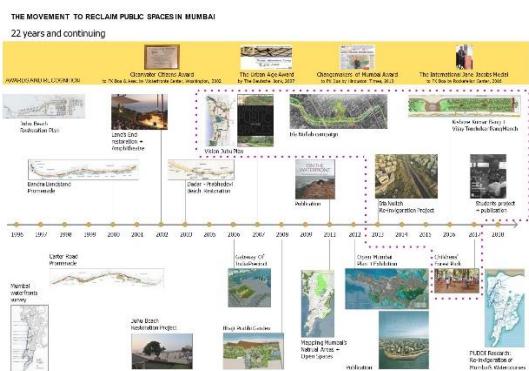
place over time. People's collaborative mapping of their own area is necessary in order to produce their own data and information that would, in most instances, differ with those that are constantly put up by the state. The issue is not limited to the production of people's data, but evolving through that process their needs and demands pertaining to ecology, environment and development. The study conducted by our organization and the learning's from the Irla project is a telling story. The success of these efforts will hopefully propel people in different parts of the city to engage in similar movements.



The larger idea that sparked the Irla nullah project is the need for recognition, documentation, conservation and integration of the vast extent of over 140 sq. km of the natural areas of the city. The successful implementation of the

waterfronts projects in Bandra, namely the promenades of Bandra Bandstand and Carter Road; the restoration of Juhu Beach—an iconic beach and public space where thousands flock daily for leisure and relaxation covering over 4km of the western coastline of the city; the many neighborhood parks and gardens, the mangrove conservation works that have led to the implementation of the Irla project, and these will hopefully compel city authorities and the government to protect and incorporate them into the development plan of the city. This would truly be in spirit and deed the replication of the ideas upon which this project has been conceived.

### A continuing eco struggle:



If this pilot project of 1.5 km can be replicated across the 300 km of nullahs running through our city, it could lead to one of the most significant contributions towards the environmental sustainability of our city and the rejuvenation of the ecological footprints at an unprecedented scale within highly urbanized conditions.

The global discussion surrounding developing sustainable cities for the future is centered to environmental protection, upgradation and integration. Quite naturally –natural environments need to be re-invigorated to mitigate the harm done to them through mindless construction. Rejuvenating and re-invigorating nullahs through place making becomes a point of entry into dealing with the larger issue of safeguarding and integrating our natural areas and in the process developing a sustainable ecology of the city for now and the future.

Thank You.