Mumbai’s Port Lands Re-imagined

The studio (June-September 2019) followed an unconventional approach for teaching students the process of large-scale planning through the lens of SDGs. The studio aimed to encourage students to look at large scale planning through the lens of SDGs.

THE STUDIO

The Design Studio was a six-month collaboration between Architects at Perkins Eastman, Mumbai and 80+ grad students from the Faculty of Architecture, New York University, the Earth Institute, and the Faculty of Architecture, KRVIA. The studio followed a design methodology that balances the varied interests at stake. This approach was developed in a context of bottom-up development, and Environmental Studies (KRVIA). Mumbai’s Port Lands are a prime example of a case study for students to be engaged in the process of the biggest redevelopment project of the city of Mumbai.

THE MANIFESTO

The studio (June - September 2019) followed an unconventional approach for teaching students the process of large-scale planning through the lens of SDGs. The studio aimed to encourage students to look at large scale planning through the lens of SDGs.

THE SITE

The studio (June-September 2019) followed an unconventional approach for teaching students the process of large-scale planning through the lens of SDGs. The studio aimed to encourage students to look at large scale planning through the lens of SDGs.

THE OUTCOME

The studio (June-September 2019) followed an unconventional approach for teaching students the process of large-scale planning through the lens of SDGs. The studio aimed to encourage students to look at large scale planning through the lens of SDGs.

PROJECT TEAM:

- Justin Thomas, Hrishikesh Pandit, Ila D'Cruz, Vittal Sridharan, Chhavi Lal, Supriya Thyagarajan, Sachin Mulay

FUNDERS:

- Perkins Eastman
- The Earth Institute, Columbia University
- Faculty of Architecture, KRVIA

LOCAL PROJECT CHALLENGE 2020 is a partnership between the Center for Sustainable Urban Development, The Earth Institute, Columbia University, and the Faculty of Architecture, KRVIA.
MUMBAI’S PORT LANDS RE-IMAGINED
MUMBAI, INDIA

LOCAL CHALLENGE PROJECT 2020: ACCELERATING THE SDGs

LIFE BETWEEN BUILDINGS

Life between buildings is a proposal that shows how the sustainable development of high, low and high density urban lands can be achieved. The project is set in a developing city with a mix of built forms. A mixed-use development model is considered where low-rise, medium-rise and high-rise apartments, offices, retail and hotel spaces are integrated. Sustainable urban form is achieved through the design of public spaces and green infrastructure. The project balances the need for urban densification with the desire for green spaces and public access.

PROJECT TEAM:
Dev Desai, Jil Salia, Palak Shah, Hitakshi Agrawal, Toshi Tusam

LOCAL CHALLENGE 2020: ACCELERATING THE SDGs

11.3.1.3
A public plane is activated by an elevated transit system on the multi-modal transport network and its jetties is integrated with the multi-modal transport network.

11.3.2
A public plane is activated by an elevated transit system on the multi-modal transport network and its jetties is integrated with the multi-modal transport network.

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LOCAL CHALLENGE PROJECT 2020: ACCELERATING THE SDGs

MUMBAI’S PORT LANDS RE-IMAGINED
MUMBAI, INDIA

The water collection method adapted is through trenches and swales that are lined along the edges of streets and roads to direct the storm water collected towards the swale that opens up into a catchment area. The existing contours on site direct the flow of water towards the catchment area.

The swale acts as the catchment area for the rest of the site, by collecting the storm water runoff along streets to deal with flooding at the centre of the site.

PEDESTRIAN
ELECTRIC SHUTTLE
PRIVATE VEHICLE

FUNDERS:
EDUCATIONAL
SDGs CONSIDERED:
PROJECT TEAM:
PARTNERS:
FUNDERS:
PROJECT TEAM:
PARTNERS:
EDUCATIONAL
SDGs CONSIDERED:
PROJECT:
STATUS:
LOCAL CHALLENGE PROJECT 2020: ACCELERATING THE SDGs

SUSTAINABLE CITIES AND COMMUNITIES
CLEAN WATER AND SANITATION
CLIMATE ACTION
LIFE ON LAND

Safe and Affordable Housing
Improve Water Quality Water Treatment & Safe Reuse
Strengthen Resilience & Adaptive Capacity to Climate Related Disaster
End Deforestation and Restore Degraded Forests
End Desertification and Restore Degraded Land

Affordable and Sustainable Transport System
Increase Water Use Efficiency & Secure Freshwater Supply
Integrate Climate Change Measures into Policies and Planning

Provide Access to Safe and Inclusive Green and Public Spaces

MUMBAI'S PORT LANDS RE-IMAGINED
MUMBAI, INDIA

PERKINS EASTMAN + KRVIA
Rucha Jaykhedkar, Drishti Jogadia, Hiloni Shah, Monil Jethva

MUMBAI'S PORT TRUST, DESIGN PROFESSIONALS

PERKINS EASTMAN + KRVIA

MUMBAI, INDIA

COMPLETED
MUMBAI'S PORT LANDS RE-IMAGINED
MUMBAI, INDIA

RE-DEFINING URBAN MOBILITY

The site, Darukhana lies on the eastern waterfront of Mumbai, India, on the site that is being developed as the 19th century, India's largest and most advanced in urban planning. The city today faces the problem of lack of public transport and the city is currently the world's most congested. The aim is to create a new urban mobility system that would increase connectivity of the site and nearby areas. The master plan aims to create a network of pedestrian and cycling routes that connects the site with the city through a series of intermodal hubs. The project proposes the creation of a new waterfront area that will be developed into a public park.

SUSTAINABLE MOBILITY CHOICES

- Electric bus route, stops, and charging stations
- Proposed electric pod route and charging stops
- Proposed private car parking, car rental, and charging points
- Proposed bicycle and scooter/segway routes and pick up/drop off points
- Concentration of major populations in a walkable radius
- Redesigning the site to open up the waterfront

QUALITY EDUCATION

- Mix of shops, restaurants, and open-air markets in car-free neighbourhoods
- Being able to walk to a mix of shops, restaurants, and work centres
- Secondary schools
- 4/4

LOCAL PROJECT CHALLENGE 2020 is a project that is a partnership between the Center for Sustainable Urban Development, The Earth Institute, Columbia University, and the Faculty of Architecture, Federal University, Rio de Janeiro.

STATUS:
PROJECT: LOCAL CHALLENGE PROJECT 2020
COMPLETED

FUNDERS:
PROJECT TEAM:

Electric bus
Personal vehicle
SUSTAINABLE MOBILITY CHOICES
URBAN MOBILITY CHOICES

Aditya Thole, Rohit Kudale, Nidhi Poojari, Shreya Bansal
PERKINS EASTMAN + KRVIA, MUMBAI PORT TRUST, DESIGN PROFESSIONALS

LOCAL CHALLENGE PROJECT 2020

MUMBAI, INDIA

Proposed bicycles and scooter/segway routes and pick up/drop off points
PRIVATE CARS AND CABS

Charging stations
Shared Car Rental
Proposed electric pod route and charging stops
ELECTRIC PODS

Charging Stops
250m

Proposed electric bus route, stops and charging station
ELECTRIC BUSES

Bus stops
NEIGHBOURHOOD LEVEL VIEW

UNDERGROUND METRO EXIT
PRIMARY 30M WIDE STREET
SECONDARY ROAD ADJOINING SCHOOL
WATERFRONT
BUS DEPOT

SUSTAINABLE DEVELOPMENT GOALS AND THEIR IMPLEMENTATION

1. NO POVERTY
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GOOD WORK AND GROWTH
6. CLEAN WATER AND SANITATION
7. AFFORDABLE AND CLEAN ENERGY
8. NICE INFRASTRUCTURE AND FACILITIES
9. INDUSTRIALIZATION
10. MIGRATION
11. SUSTAINABLE URBAN MOBILITY
12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION
14. LIFE ON LAND
15. LIFE UNDERWATER
16. LIFE ON LAND
17. LIFE UNDERWATER

Proposed according to differences in the areas
NITI AAYOG, INDIA

3.13 MILLION
NITI AAYOG, INDIA

SUSTAINABLE DEVELOPMENT GOALS AND THEIR IMPLEMENTATION

DECENT WORK AND ECONOMIC GROWTH

Low risk income generating activities are encouraged to provide a safe working environment for the people and promote long-term self-sufficiency and sustainable development. A focus on long-term growth and income generation is ensured through the provision of low-cost housing and the establishment of small businesses.

RESPONSIBLE CONSUMPTION AND PRODUCTION

A network of electric buses and charging points is being developed at the site to reduce the carbon footprint and promote sustainable transport. The site also includes the development of a green roof and the installation of solar panels to provide energy for the buildings. The site is designed to be a sustainable development project that promotes responsible consumption and production.