

Singapore
January
2021



THE ARCHITECTURE EXPERIENCE

Gardens by the Bay

AN EXPERIENTIAL LEARNING COURSE
ON URBAN HOUSING, DEVELOPMENT,
AND SUSTAINABILITY IN SINGAPORE



Kampong Glam

URBAN HOUSING & DEVELOPMENT

Seeing a confluence of various cultures and ethnicities, the architecture in this city-state is shaping its own identity through advancements in urban housing, development and innovation. The participants will get to study agencies and their holistic approach (policies and implementation) towards a focus on providing housing for all, the evolution of public housing, the transformation of urban areas, and planning models used to create a sustainable environment with a high quality of life. The change in the course towards biophilic and regenerative design, be it through the incorporation of vertical gardens or vegetative landscapes or innovation in urban planning.

Why Singapore?

Young architects could benefit exponentially from observing architecture in a country which has a colonial past including starting points for nation-building post-independence with an intent to provide housing for all. Also observed is Singapore's rapid success in overcoming its spatial and resource constraints and transforming itself from a third-world to a highly liveable first-world city-state today. Participants also get to observe newly rejuvenated housing districts (HDBs) in Singapore which retain the distinctive qualities of local identity areas through setting design guidelines for existing and new developments and retaining key elements.



The
Pinnacle@Duxton

THE ARCHITECTURE EXPERIENCE

The best approach to growing as an architect is to learn from experiencing and observing. **The Architecture Experience** aims to do just that. Participants get to observe the evolution of urban housing and innovations in the field through site visits and interactions with agencies, and document the learning in a themed narrative for later referencing.

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**7 DAYS,
20 PARTICIPANTS**

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These visits will focus on evolution of public housing through the years and the current focus based on current needs of creating a sustainable environment with a high quality of life, involving the community as stakeholders. All the while looking at sustainability as an underlying theme from the macro to the micro level. The visits also include observations of local-identity areas that are also being rejuvenated with new public spaces, upgraded streetscapes, or sensitive injection of new homes and amenities.

IMPORTANT PLACES VISITED



GARDENS BY THE BAY

Gardens by the Bay in Singapore is renowned for its innovative architectural features blending nature and technology. The park spans 101 hectares and includes three waterfront gardens. The Supertree Grove comprises vertical gardens up to 50 meters tall, with canopies that provide shade and collect rainwater. These structures also house solar panels to generate energy. The Flower Dome and Cloud Forest are massive conservatories showcasing plants from around the world.

The park's design integrates sustainable practices, such as rainwater collection and recycling, and its architecture symbolizes Singapore's commitment to environmental conservation and urban greenery.



URA MUSEUM (SINGAPORE CITY GALLERY)

Spread across 2,400 square meters and three floors, the gallery explores Singapore's remarkable transformation over the past 50 years through 10 thematic areas and 50 interactive exhibitions. The first floor focuses on urban planning and architecture, aligning with the Urban Redevelopment Authority's objectives.

The second floor showcases a replica of central Singapore, while the third floor features permanent exhibits on historic preservation, sustainable development, and urban design. It's a comprehensive exploration of Singapore's development story.

IMPORTANT PLACES VISITED



The Pinnacle@Duxton is an HDB, home to almost 8000 residents, thrice the density of a normal housing estate precinct. At a density of around 320,000 persons per square kilometre, this Superdensity project is an important demonstration of the liveability of high-rise high-density housing.

By transforming the ground into a social dynamo, both receiving and generating social activities for the residents as well as for the city, the design has turned what might have been a congested space of car parks and services into a meaningful landscape full of potential for social interaction and bonding.



The Marina Barrage is an iconic landmark amalgamating engineering and architecture. The five-acre site is designed to house seven massive pumps as part of a comprehensive water management system to prevent flooding and transform the Marina Basin into a freshwater reservoir. The project is a showpiece of environmental sustainability and has won the Green Mark Platinum Infrastructure Award.

Sustainable principles are applied in all aspects of the design, construction and operation of the barrage to utilise energy and water efficiently and minimise waste generated.



CAPSTONE PROJECT OVERVIEW

Project work by the
October 2019 batch - A pop
up pavilion design

The experience is designed with the intent of enhancing architectural understanding, by creating a hands on and interactive learning layer on top of a curated travel plan. Throughout the trip, participants will visit architecturally relevant sites, both historic and modern.

**“ ON TOUR
DISCUSSIONS,
ON SITE
OBSERVATIONS,
ASSIGNMENTS AND
FEEDBACK ”**

They will explore methods of observation and documentation while focusing on urban housing and its development. Participants will be given an existing project in which they will have to conduct a basic SWOT analysis and identify areas that could be enhanced by ideologies of urban housing, development, and sustainability. Participants will engage with the curator in daily sessions and discussions. Participants will also get to engage in dialogue with professionals from local agencies and draw parallels with their design approach back home in India.

For the participants who desire to, there would be an option to extend the project where they get to work on a concept plan to develop and rejuvenate an existing housing area by addressing specific urban challenges they face in their home cities.



Clarke Quay

WHAT IS IN IT FOR ME?

Participants get to understand urban housing as a concept, and how to draw parallels with the Indian geographic. Participants will document and consolidate their observations, engage in critical thinking and design exercises, and build a repository of knowledge created over the experience.

Post the trip, this work may be published and exhibited with collaborating organisations and media outlets.

From a learning perspective, participants get to understand how their domain of interest approaches sustainability, and how they can work towards Sustainable Development Goals in their projects.

At the end of the Experience, participants will have an improved practical understanding of what they study in college and learn how to implement these strategies into their own project, enhancing their portfolios.

Participants may also get internship opportunities from our partners.

**“ RELEVANT PROJECTS,
INTERNSHIP
OPPORTUNITIES,
UNDERSTANDING OF
VERNACULAR
SUSTAINABILITY**

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EXPERIENCE OVERVIEW

DAY 1

Arrival in Singapore.

Orientation on the structure of the tour visits and project. Finalisation of teams and the participants' individual roles and responsibilities within the team will be defined.

Cultural visit: Chinatown neighborhood walk and exploration.

DAY 2

Topics of discussion: Understanding the historical context, heritage, and urban planning of Singapore.

Places to visit: URA City Gallery, Maxwell Hawker Centre, National Library of Singapore.

Cultural visit: Kampong Glam.

DAY 3

Topics of discussion: HDB's approach to urban planning and public housing. Protected landscapes of the city.

Places to visit: The Pinnacle@Duxton, Henderson Wave, The Interlace (outside visit).

Cultural visit: Little India.

DAY 4

Topics of discussion: Understanding the role of public transportation and connectivity in urban planning.

Places to visit: Park Royal @ Pickering, National Gallery of Singapore (outside visit), HDB Gallery and Model Flats.

Cultural visit: Clarke Quay, Boat Quay.

DAY 5

Topics of discussion: Water and flood management techniques, sustainable urban planning strategies

Places to visit: Sustainable Singapore Gallery, Marina Barrage, Marina One, Esplanade + Art Science Museum + Marina Bay Sands (outside visits), Gardens by the Bay (dome visits not included).

Cultural visit: Garden Rhapsody at Gardens by the Bay.

DAY 6

Free Day

DAY 7

Topics of discussion: Energy-efficient design strategies in public spaces, building around natural resources, and the integration of green features in public areas.

Places to visit: The Jewel at Changi airport.

Culmination of the tour, brief on submission of Capstone project.
Departure to India or home country.



Curator -
Ar. Rachita Bhonsle
(B.Arch)

CURATOR & TOUR LEADER

The Architecture Experience Singapore is curated by Rachita Bhonsle, who will also be accompanying the participants on the tour. Rachita is a senior architect at a private firm which specialises in high-rise buildings and high-density residential communities. She has a background in environmental policy management, sustainable design, and energy-efficient planning.

Rachita has worked mainly in the residential, hospitality and educational sectors. She is passionate about climatology-based design, the environmental impact of built spaces and sustainable site planning. These principles have driven her work for the last decade.

Timeline

- 2007-2012 B.Arch, MS Ramaiah Institute of Technology, Bangalore
- 2012-2014 Vishwannath Associates, Bangalore
- 2015 Graduate Certificate Program in Environmental Policy and Management – Major in Energy and Sustainability, University of Denver, Colorado, USA
- 2016 Rogue Architecture, Wheatridge, Colorado
- 2017-2023 Poornakriti Architects, Bangalore
- 2021 - Sustainable Site Planning, MITx
- 2024 - How to use Biomimicry in Architecture, Eduwik
- 2024 - Sustainable Building Design, MITx



Curator -
Ar. Atul Saraff
(B.Arch)

CURATOR & TOUR LEADER

The Architecture Experience Singapore is co-curated by Atul Saraff, who will also be accompanying the participants on the tour. Atul is a practising architect based in Bangalore and also currently teaches at CMR School of Architecture. He has 12+ years of experience in the field, working with firms such as Mistry Architects - Bangalore, Mozaic - Goa, and Total Environment - Bangalore. Atul is an IGBC-accredited professional and focuses most of his effort on creating and teaching about environmentally conscious designs. Most of his experience is focused on the Residential and Hospitality sector.

Atul is an Alumnus of MS Ramaiah Institute of Technology, Bangalore.

Timeline

- 2007-2012 B.Arch. MS Ramaiah Institute of Technology, Bangalore
- 2012-2014 Mistry Architects, Bangalore
- 2014 IGBC Green accreditation
- 2014-2015 Mozaic, Goa
- 2015-2021 Total Environment, Bangalore
- 2021-Present - Design Principal at Saraff and Sharalaya Design House
- 2021-Present - Assistant Professor at CMR School of Architecture

ALUMNI TESTIMONIALS



AYUSHI MADAN
4th Year, Wadiyar
Centre For
Architecture, Mysore

Participant - The Architecture Experience Vietnam

The trip allowed me a very holistic experience of the cities, which is a first for me, despite having been on quite a few "study" trips. It encompassed everything from contemporary and historically relevant site visits to vibrant day and night markets, offering insights into various aspects beyond architecture- food, culture, history, and so on. To our surprise and joy, the lively local New Year celebrations added a dynamic dimension, revealing various facets of the city's essence. It was encouraging to see studios and practices using sustainability and adaptive reuse as forefront agendas in a relatable urban context. I enjoyed seeing the variety in the typologies and languages of architecture within the same city. Would definitely want to explore more into the observations and learnings from Vietnam. There were a lot of spontaneous discussions encouraged and initiated by Atul Sir, which made me look a few more steps beyond just the surface and helped me catch onto certain aspects in a much more simplified way. He was really a great mentor to have on this trip!



SARAH SULEKHA
Architect

Participant - The Architecture Experience Japan

The learning experience was not only with regard to architecture, but also included learning about the social and cultural environment. I loved how I got to experience both contemporary and traditional cultures in parallel, and also got the opportunity to interact with architects like Florian Busch as well as with the locals. Hats off to Rachita for being so patient and positive in every situation. She made me feel very comfortable. The team was very enthusiastic and comfortable to work with. The accommodation, transportation and every other basic need were very comfortably organised with the cost in consideration.. The team was very enthusiastic and comfortable to work with. The accommodation, transportation and every other basic need were very comfortably organised with the cost in consideration.



**TANUSHREE
MURKIBHAVI**
3rd Year, BNCA, Pune

Participant - The Architecture Experience Singapore

We learned a lot about urban planning, city-scale development, and how planning and sustainability go hand in hand. We visited exhibitions that reinforced those ideas and later got time to explore our ideas in the form of projects. The trip was a balance of both fun and academics. Rachita made the entire learning process more fun and carefree, which allowed us to explore more around the core concepts. Overall, I had an amazing time with her and am glad that she was our mentor. An Amazing experience, I understood new ideas and concepts from a new perspective. Site visits were the best; I got to learn a lot and also saw real-life applications of concepts related to urban planning.



SHHRRUTI JAIN
Architect

Participant - The Architecture Experience Sri Lanka

Studio and site visits were very well organised, but what I loved the most were the interactive sessions that we had with various artists and architects in Sri Lanka. Conversations with them were an extremely enriching experience. I got a better understanding of material selection, and the integration of nature in the landscape was eye-opening. Prithy and Kshitija curated the experience extremely well, and I got to learn a lot from them. About the places as well as the field in general. It was a great experience altogether! Very well planned, especially keeping in mind the fact that we were here for a decent number of days and have almost covered everything, ranging from the historic places to the modern ones. This trip was worth the money and will definitely influence my design in the future.



SUSTAINABLE DEVELOPMENT GOALS

All our Experiences are aimed at implementing and solving the 17 Sustainable Development Goals set by the UN.

Goal no. 17, Partnerships for the Goals, is key to our Experiences, since we work with a global team of experts to be able to add value to the learning of the participants.

The Architecture Experience focuses on 3 of the Goals primarily -



Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being



Goal 11: Make cities inclusive, safe, resilient and sustainable

- By 2030, ensure access for all to adequate, safe and affordable housing
- By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement
- By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters



Goal 12: Ensure sustainable consumption and production patterns

- By 2030, achieve the sustainable management and efficient use of natural resources
- Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production



THE HAPPY LLAMAS

At **The Happy Llamas**, we curate Experiences for participants to show them how their domains work in the real world, and how they approach sustainability. Why?

We believe that the world has a lot to offer, and only on going out and engaging with different cultures in different corners of the world can one get a holistic view of life, and evolve personally and professionally. We also feel strongly about the need to make this planet, the only one that we have, more sustainable.

Keeping these two thoughts in mind, we work with domain and subject matter experts to co-curate Experiences where we inspire today's youth on how to make this world a better place to live for themselves and their peers, and creating positive global impact in their domains of interest.

We invite you to join us in this journey, and be a part of an inclusive and global community of changemakers!

Contact Us

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WE ADHERE TO WORK TOWARDS THE SUSTAINABLE DEVELOPMENT GOALS



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A building can only be understood by moving around and through it, and by experiencing the modulation, and feel the spaces one moves through - from outside into verandah, then rooms, passages, courtyards. Architecture cannot be totally explained but must be experienced

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GEOFFREY BAWA

ParkROYAL Hotel on Pickering by WOHA architects. Photo by William