Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan

Personal information	
Name	Vihaan Shah
Student number	5725100

Studio			
Name / Theme	Explore lab		
Main mentor	Roel Van de Pas	**Design mentor**	
Second mentor	Aart Oxenaar	**Research Mentor**	
Argumentation of choice of the studio	The opportunity Explore lab provides to frame a thesis of my own was the main reason. I wanted to continue research from my Bachelors on Mumbai's Eastern coast and its potential.		

Graduation project	
Title of the graduation project	The Contemporary Pilgrimage- The case of Elephanta Island
Goal	
Location:	Gharapuri, Mumbai
Problem statement	The small island of Elephanta or Gharapuri is only accessible by ferry, making journeys during the monsoon untenable. The island faces several challenges with a shrinking population due to the lack of adequate education, employment and medical facilities. Most residents are dependent on the micro-economy created by tourists that visit the UNESCO World Heritage Caves. A proposed ropeway set to bring in a larger inflow of visitors puts pressure on the already burdened ecosystem of the tropical island. The world heritage status of the caves requires a complicated balance between managing tourism and preserving heritage. The Island requires a comprehensive plan that employs sustainable tourism practices that integrate the socio-economic needs of the residents.
Research Question	How can architecture aid in developing Elephanta Island as a heritage, religious and tourist site while mediating between the informal economy and maintaining ecological integrity?
Sub-questions	What is the role of architecture in sustainably managing tourism at Elephanta Island? How can the new ropeway maintain the involvement of the informal economy that depends on tourists? How can streams of visitors be managed while protecting the historical object and sacred site?

Design assignment	The project will focus on the landing at Elephanta Island and the development on the pier. Additionally, the proposal will include a portion of the heritage steps leading to the caves, where an informal economy thrives. A 'model of growth' will be proposed for the informal shops that line the steps to the caves and will also establish thresholds for the proposed program delineating a 'maximum' extent.

Process

Method description

The research will include
1. **Historical research**- Archival literature and maps
2. **Empirical & analytical research**- Photographs, mapping, stakeholder analysis, articles.
3. **Case study research**- This will include visitor flow and heritage site management. A comparison of programs and areas of visitor centres at such sensitive sites to develop a programmatic overlay. Additionally, an overview of development on piers will be included to generate a masterplan for the pier at Elephanta.

Literature and general practical references

The historical framework for the research will include the stages of growth of Mumbai, the Eastern Port as well as Elephanta caves. The Theoretical framework will include thematic literature on Critical Regionalism in India and contemporary texts on 'ephemeral' urban solutions in India.

Some of the key literature will include-

- Paul, A., Joshi, P., & Mehrotra, R. (2004). *A Study of the Eastern Waterfront of Mumbai.*
- Dwivedi, S., & Mehrotra, R. (1995). *Bombay- The Cities Within.*
- Correa, C. (1985). *The New Landscape- Urbanisation in the Third World.*
- Eck, D. (2015). *Kumbh Mela- Mapping the Ephemeral Megacity.*
- Mehrotra, R. (2021). *The Kinetic City & Other Essays.*

Reflection

Expected Outcomes- The research expects to determine the points of intervention within journey from Mumbai to Elephanta Island. It will assist in generating a program, site and scale for the intervention that is the first cog in the regeneration of the historic journey to Elephanta Island. Additionally, another outcome may include a process/method of integrating contemporary infrastructure into the site. Rather than separating the more 'formal' infrastructure and 'informal' socio-economic activities that occur at such sites, it aims to provide tangible methods that merge these entities.

Relation to Design- The outcome of the research will aid in the design by…

- Strategically placing tourist facilities on the island.
- The type, scale, site, materiality and program of the development
- Additional programs to integrate the informal shops and revive the heritage steps

Relevance
The research aims to provide a viable and practical outline for integrating sustainable tourism and the informal economy at Elephanta Caves. The outcome can inform a development model for Elephanta Island that can stimulate the socio-economic recovery of locals while managing large streams of tourism. The architectural approach towards the stations also provides a position towards other developments on the island that are sensitive to the complex historical and socio-economic influences and its complex position in the urban fabric of Mumbai.
Ethical Issues
Possible ethical issues that may arise as a part of the research may include the lack of involvement of Elephanta locals in the design or final product. Additionally, it could be argued that building the ropeway is an act of environmental disruption and the residents of the Island have more pressing needs such as regular water supply and medical facilities. Smaller aspects of the design could also have consequential effects on the wages of locals who depend on the tourist economy. Adding accessibility features like electric star chairs can deprive locals who make money by lifting the elderly and disabled on makeshift 'thrones' up the stairs in return for compensation (A common feature for pilgrimage sites across India). Notwithstanding the potential ethical issues in the research, my argument would be that the ropeway will provide access to and from the island for the entire year and faster transportation of goods. The addition of such infrastructure if managed well can provide benefits for all the stakeholders involved. The research would aim to provide a solution that creates the least environmental impact on the island while prioritizing the upliftment of the local population.