

ACADEMIC WORK

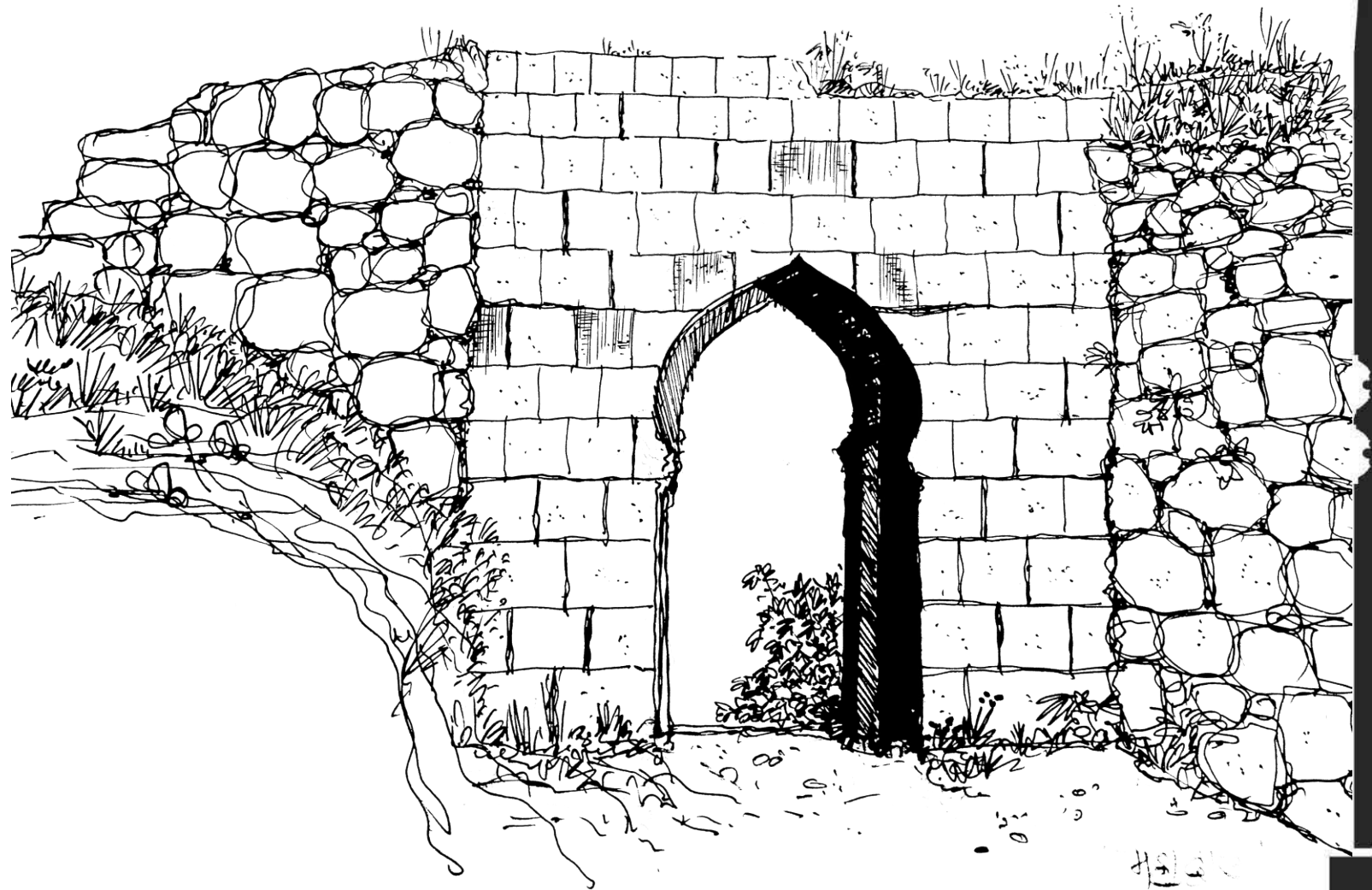
STUDENTS WORK OF

M.ARCH ARCHITECTURAL CONSERVATION

ACADEMIC YEAR 2021-22

Syllabus- 2019 pattern

Semester I and II



Subject – Conservation Studio I

Studio Project – Conservation Proposal for Chaskar Joshi Wada, Chas village, Pune

Topic – Contextual Study



Google earth image of Chas



Plan of the study area (traced from google earth)

Source : Author

CONTEXTUAL STUDY OF CHAS

Chas is a panchayat village in the state of Maharashtra, India, on the left (east) bank of the Bhima River. Administratively, Chas is under Khed Taluka of Pune District in Maharashtra. Located 55 Kms from Pune, near Rajgurunagar on Pune-Nashik highway, this town has a historical significance of being the maternal home of Kashibai, wife of Peshwa Bajirao I.

ACCESSIBILITY :

It belongs to Desh or Paschim Maharashtra region

It is located 42 KM towards North from District head quarters Pune & 128 km from the state capital Mumbai.



Khed taluka in the map of Pune district



Political map of Khed Taluka

CLIMATE

Geographically, study area is part of Western Ghats, Deccan trap region. This region belongs to sub-humid in the west to semi-arid in the east with different seasons like summer, rainy and winter. The western to eastern regions has annual rainfall decreases from 2200 mm to 700 mm marked with July maximum. Soil in this area like black cotton with varying depth which is developed from basalt rocks.

Agriculture is the most common land use with well irrigated land.

Historical Study

CHASKAR JOSHI FAMILY AND THEIR ASSOCIATION WITH THE ROYAL FAMILY AND THE PESHWA



Chhatrapati Shivaji Maharaj

Chaskar Joshi family are originally from Talsoor village, district Ratnagiri in the Konkan region of Maharashtra.

Krushnaji Pant Joshi Chaskar was appointed as the **Potadar** by **Chhatrapati Shivaji Maharaj** and worked in the regions of Kolhapur, Pune, Satara for the Maratha empire.

His three sons, **Naro Krushna, Govind Krushna & Mahadji Krushna** worked with **Sambhaji Maharaj** and **Rajaram Maharaj** and must have done important and significant work since they were **awarded Inampatr for the Pali region**. They did significant work in the seize of **Jinji** and helped **Rajaram Maharaj**.



Chhatrapati Rajaram Maharaj



Chhatrapati Shahu Maharaj

Mahadji Pant Joshi had the regions of **Khandesh, Baglaan, Kalyan, Junnar** and **Pune** as his work area as a **Potdar**.

Peshwa Balaji Visi by the help of Mahadji with the then **Chhatrapati Shahu Maharaj** of Satara.

Mahadji Pant Joshi also helped **Balaji Vishwanath** in his financial debts and he gave a strong monetary support.



Peshwa Balaji Vishwanath



Peshwa Thorle Bajirao (Bajirao I)

With the intervention of Chh. Shahu Maharaj, '**Ladubai**' the daughter of Mahadji Pant was married to the son of Balaji Vishwanath, who went on to become a brave chiefton, **Peshwa Thorle Bajirao (Bajirao I)**.

This marital alliance elevated the social status of Chaskar Joshi family.

Subject – Conservation Studio I

Studio Project – Conservation Proposal for Chaskar Joshi Wada, Chas village, Pune

Topic – Architectural typology study during Maratha period - Gadhi

RESIDENTIAL TYPOLOGY IN MARATHA PERIOD

With the rise of Maratha power, the society became affluent and invested resources in building & construction activity.

The most common form of residence was that of a wada; which became synonymous during this time period.

Wada as a residential typology was largely built during 1700-1900 A.D.

'An architectural prototype, the form was used for construction of houses of different social classes and adapted to diverse lifestyles of its owners.

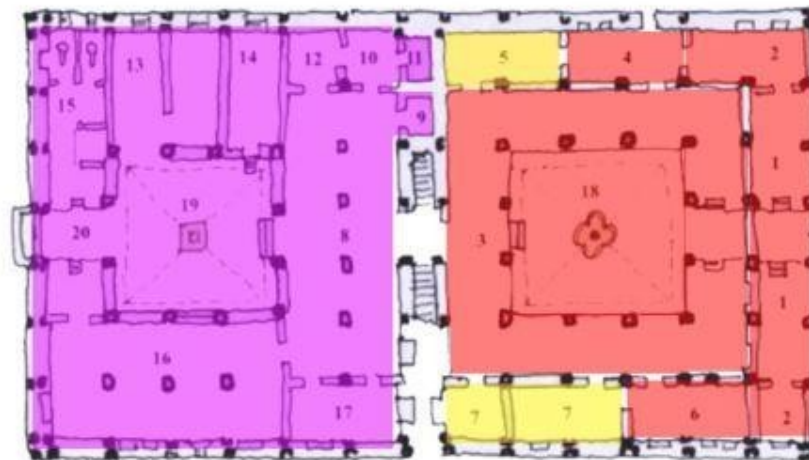
Methods & materials of building determine structural design; while topographical variations affect design elements.

The styles & culture of that time and owners self image & aspirations are reflected in the architecture.

Rituals of daily life, movement of people within the house & the uses ascribed to various parts of house determine space allocation.



ETYMOLOGY OF SPACES

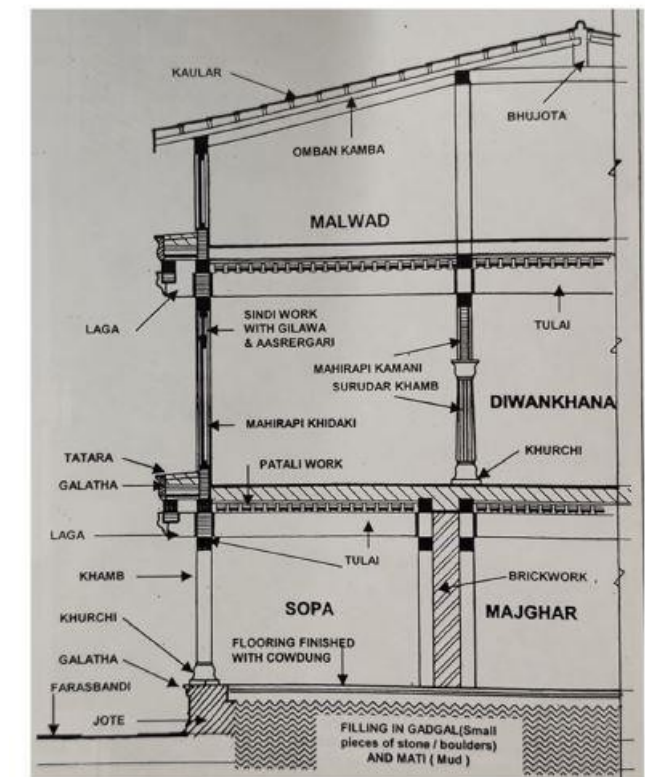
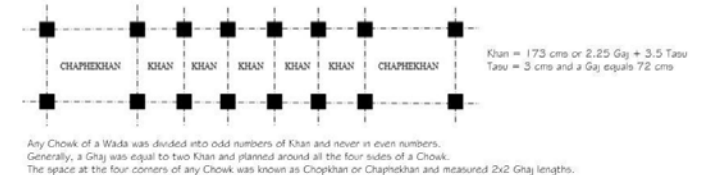


- | | |
|---|---|
| 1. <i>Osari</i> (verandah) | 11. <i>Tijori</i> (Treasury) |
| 2. <i>Devdi</i> (Guard Room) | 12. <i>Pothichi Kholi</i> (Manuscript Room) |
| 3. <i>Sadarecha Sopra</i> (Formal Verandah) | 13. <i>Gotha</i> (Cowshed) |
| 4. <i>Kacheri</i> (office) | 14. <i>Balantinichi Kholi</i> (Delivery Room) |
| 5. <i>Khalbatkhana</i> (Negotiation room) | 15. <i>Nahani/Sanday</i> (Bath/Toilet) |
| 6. <i>Baithak</i> (Reception) | 16. <i>Swaypak ghar</i> (Kitchen) |
| 7. <i>Dulan</i> (Living Room) | 17. <i>Kothar</i> (Store) |
| 8. <i>Majghar</i> (Middle Room) | 18. <i>Karunja</i> (Fountain) |
| 9. <i>Bulad</i> (Grain Store) | 19. <i>Tulshi Vrindavan</i> (Shrine) |
| 10. <i>Denghar</i> (Prayer Room) | 20. <i>Rear Entry</i> |

Public Space Semi-private Space Private Space

- DEVDI : Small room like vestibules for guards.
- KACHERI : Office space of sardars
- DAPHTAR : Record room adjoining the kacheri
- SOPA : Pillared hall led to Kacheris & Daphtars : Referred as unprogrammed semi-open space around the court.
- SHASHTRAGHAR : Room for weapons
- POTHICHI KHOLI : The manuscript room
- KHALBATKHANA : Negotiation room
- DEVGHAR : Shrine of family's deity
- BALANTINICHI KHOLI : Room for delivery of child & the period thereafter
- SWAYAMPAKGHAR : Kitchen
- PANGATICHA SOPA : Dining area
- KOTHAR : Storehouse
- GOTHAGOSHALE : Cowsheds
- HAUD : Water storage tank

MEASURING UNITS IN WADA



INTRODUCTION TO HOUSING TYPOLOGY

Wada has been defined as a Marathi word denoting a large mansion; the term in all probability derived from the Sanskrit word 'rata' meaning a plot or piece of land meant for a house.

In course of time, it came to rate the house built on that plot.

Individual Wada
Gadhi (Mansions)
Rajwada (Palace)
Ordinary Wadas

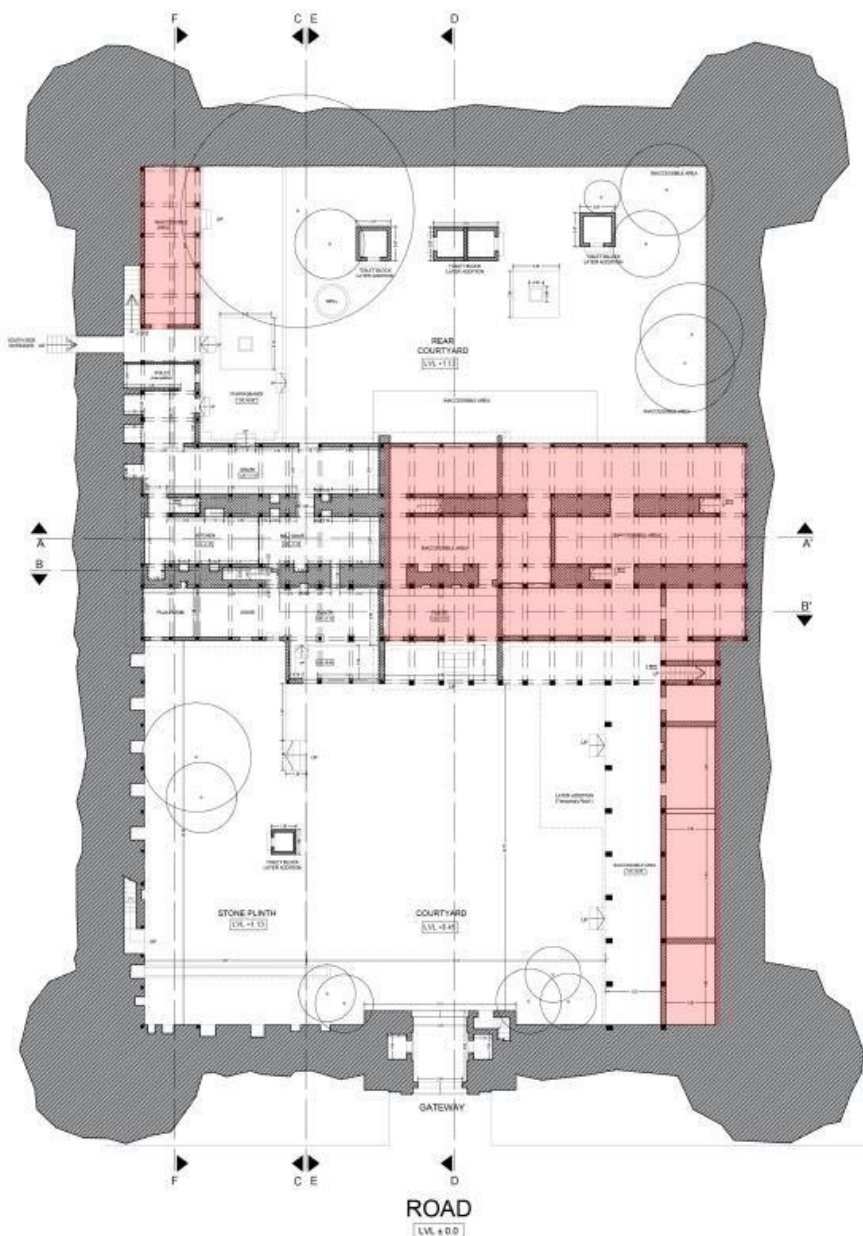


Subject – Conservation Studio I

Studio Project – Conservation Proposal for Chaskar Joshi Wada, Chas village, Pune

Topic – Documentation and Material Mapping

SECTIONS



TIMBER
TRADITIONAL BRICKS
STONE
LIME PLASTER
VERNACULAR CLAY TILES
ACRYLIC SHEET
TRADITIONAL BRICKS WITH COW DUNG FINISHED FLOOR
OIL PAINT
VITRIFIED TILES
SHAHABAAD FLOOR
STEEL
MUD
VITRIFIED TILES
ADOBE
M.S. CORRUGATED ROOF

MATERIAL MAPPING



Subject – Conservation Studio I

Studio Project – Conservation Proposal for Chaskar Joshi Wada, Chas village, Pune

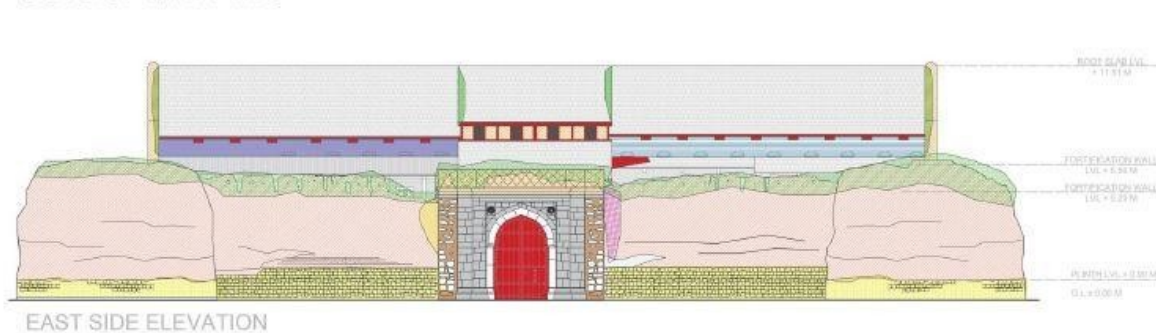
Topic – Defect Mapping

DEFECT MAPPING-SECTIONS



CONSERVATION PROPOSAL FOR CHASKAR JOSHI WADA

DEFECT MAPPING



DEFECT MAPPING GLOSSARY

STRUCTURAL CRACKS	DIS Joints
VEGETATION GROWTH	PLUMBING LINES
DISCOLOURATION	ELECTRIC LINES
LOOSE MASONRY	PLASTER PLAINS
WOOD ROT	NON-STRUCTURAL CRACKS
MOISTURE	DISCOLOURATION
WOOD SANDING	FUNGAL GROWTH
MOISTURE	BRICKER POINTING
BLACKENING	EFFLORESCENCE
HYDRED TILES	MISSING CLAY TILES
	SALT DEPOSITION
	DISINTEGRATION

DRAWN BY : Nikita Shogel
Anagha Pawar
Rimanshu Subandh

FACULTY
AR. VISHALI LATKAR
AR. MUKTA DESHPANDE
AR. POORVA PATIL

F.Y.M.ARCH
ARCHITECTURAL CONSERVATION
SINHGAD COLLEGE OF ARCHITECTURE

SUPER STRUCTURE				
Sl.No	COMPONENT	MATERIAL	SKETCH	PHOTO
1	COLUMNS	WOOD		
2	BEAM	WOOD		
3	SLAB	WOOD, BRICK, COW DUNG, LIME		
4	FLOOR	STONE		
5	MASONARY WALLS	BRICK LIME		
6	BRACKETS	WOOD		
7	STAIRCASE	STONE & WOOD		

SUB STRUCTURE				
Sl.No	COMPONENT	MATERIAL	SKETCH	PHOTO
1	FOUNDATION			
2	PLINTH	STONE		

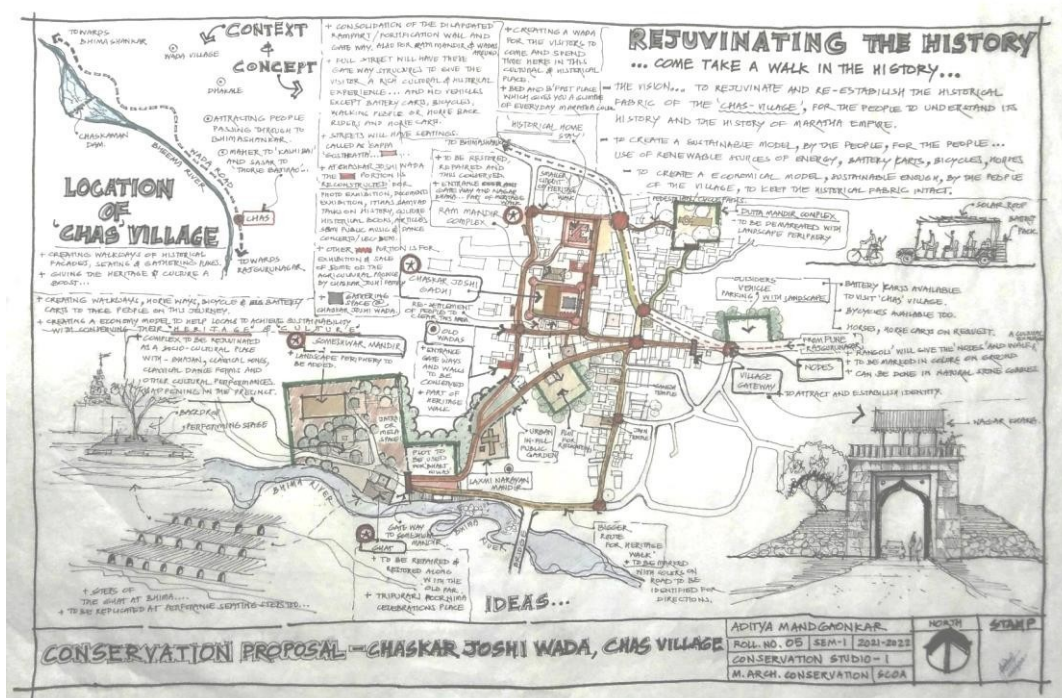


Work featured:
ClassWork

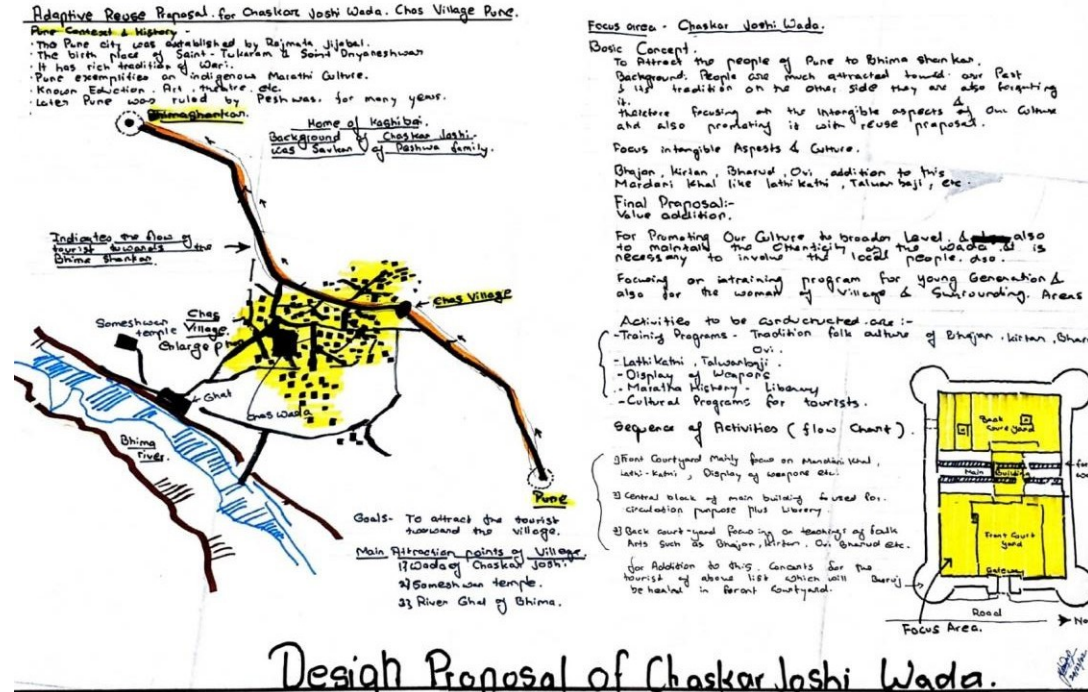
Subject – Conservation Studio I

Studio Project – Conservation Proposal for Chaskar Joshi Wada, Chas village, Pune

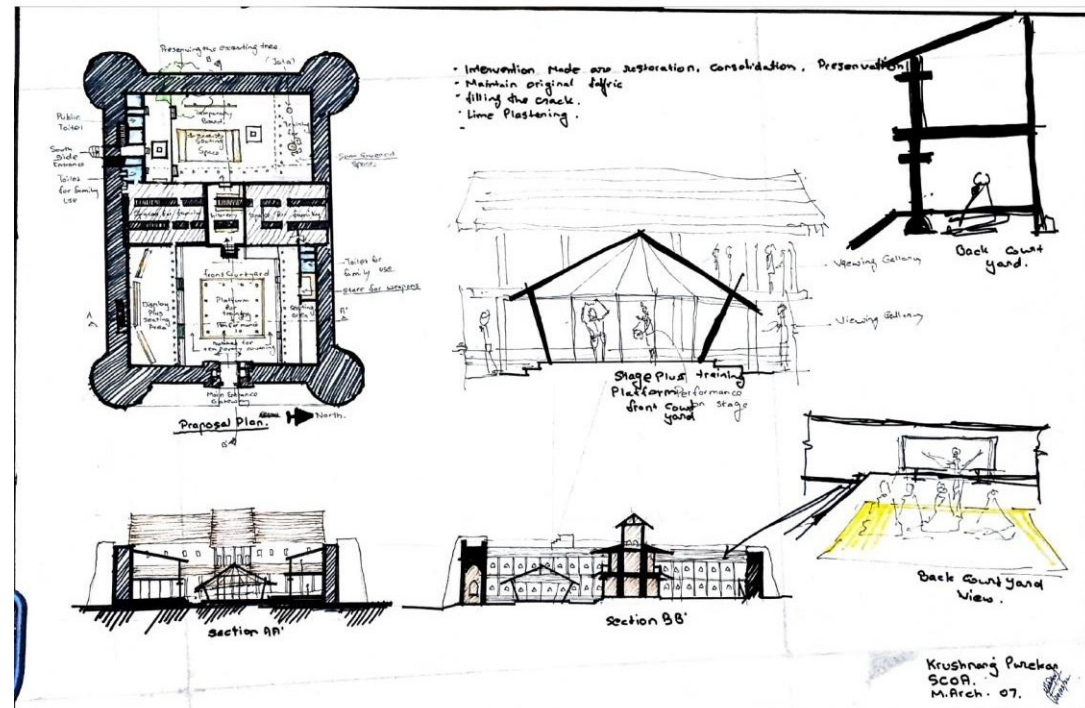
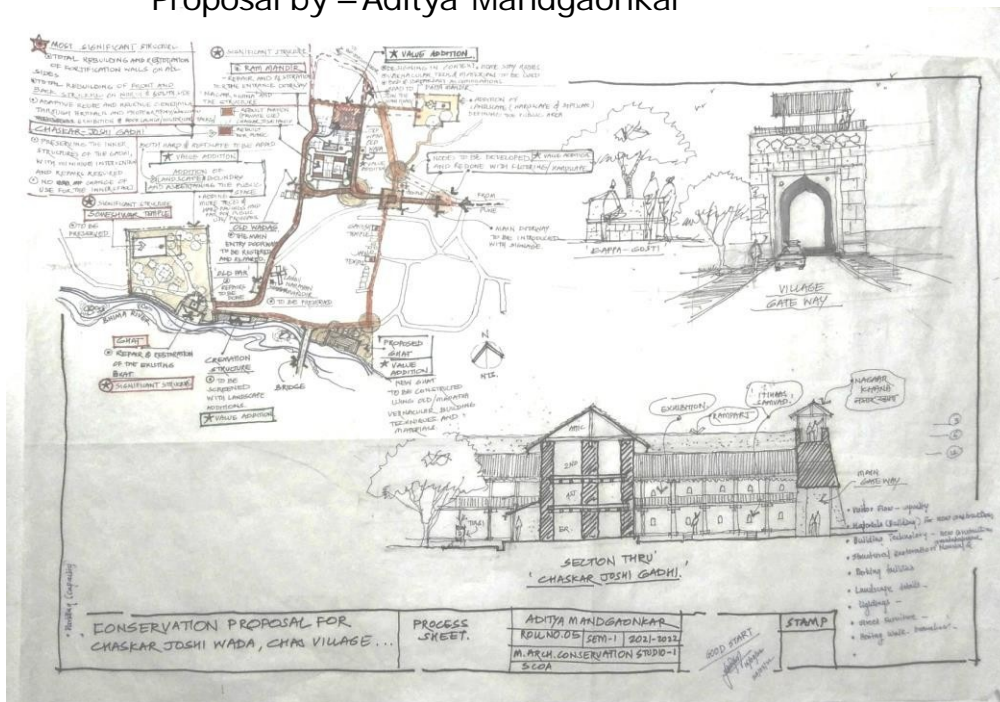
Topic – Proposal- TIME BOUND EXERCISE



Proposal by – Aditya Mandgaonkar



Proposal by – Krushnaraj Purekar



Subject – Elective I – Digital tools and technology

Topic – Heritage Photography

Students are supposed to Create a Photography Portfolio of the following types of Heritage in their own vicinity :

(1) Architectural/ Structural (2) Household Objects (3) Art & Artefact viz. statue, idol, painting, etc. (4) Living/ Intangible Heritage viz. ritual, tradition, custom, etc. (4) Miscellaneous/ any other manifestation of Heritage of your choice viz. culinary, performing arts, etc.



Heritage from Kitchen

Work featured – Aditya Mandgaonkar

Heritage in kitchen.....well you can say that. No, this is not what it looks like....not a glass Shivlinga, but a lemon juice extractor from the manufacturers called Ogale. My great grandfather and later my grandfather used to have a dealership of Ogale products.

This piece here works wonders and I haven't seen a better performing product than this till now....simple and efficient...that's the way to go...



Work featured – Himanshu Subandh

Performing Arts

One prime thing India is known for is its rich culture of performing arts. Dance and Music form the roots of Indian art and is widely showcased in all parts of the world today.

Indian Classical Music is often termed as '*Maargi Sangeet*' - that sets one on his divine and introspective journey.

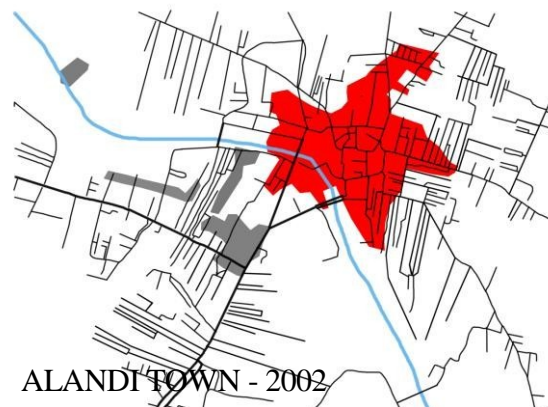
In frame : Vidushi Ashwini Bhide Deshpande (*Jaipur Atrauli Gharana*)



Subject – Planning Theory

Topic – SPATIAL AND CHRONOLOGICAL DEVELOPMENT OF MID-LEVEL TOWN

Study any Mid-level town(C class): explain spatial and chronological development through sketches and google earth images

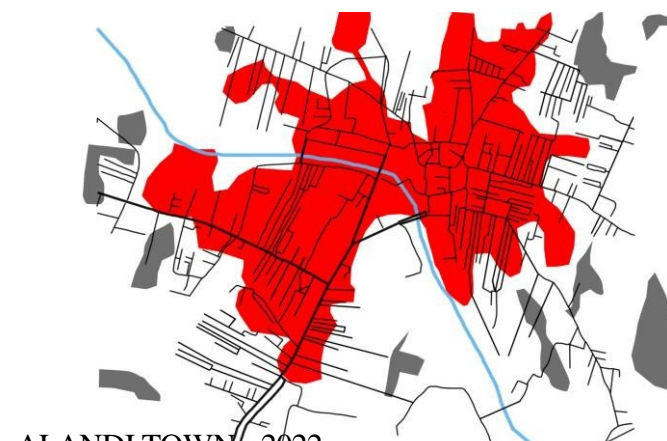


ALANDI TOWN - 2002



ALANDI TOWN - 2012

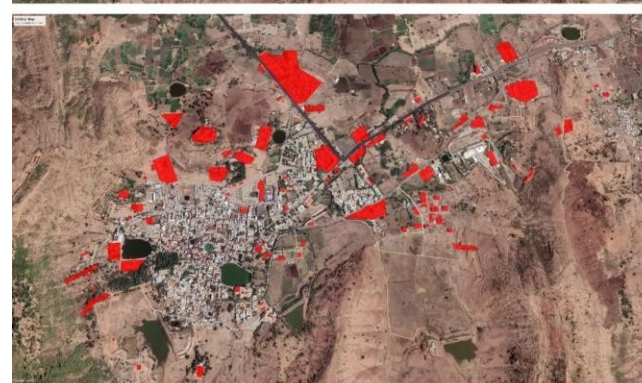
Work featured – Anagha Pawar



ALANDI TOWN - 2022



2011



2021

Chronological and spatial development of
TRIMBAKESHWAR

Ar. Aniket Kulkarni
First Year
M. Arch (Conservation)



Alibag village, 2002



Alibag village, 2009



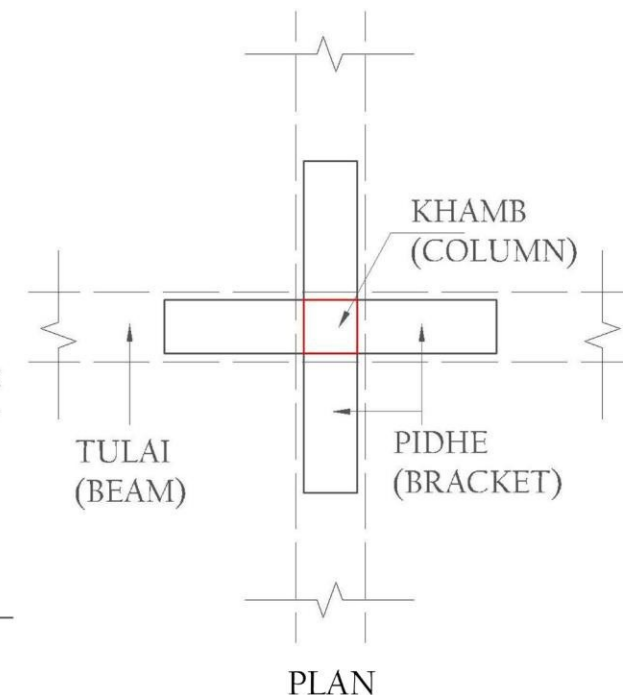
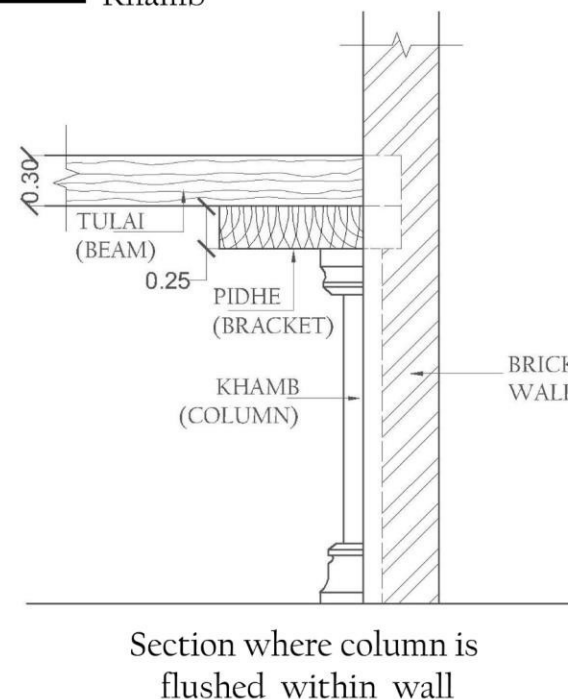
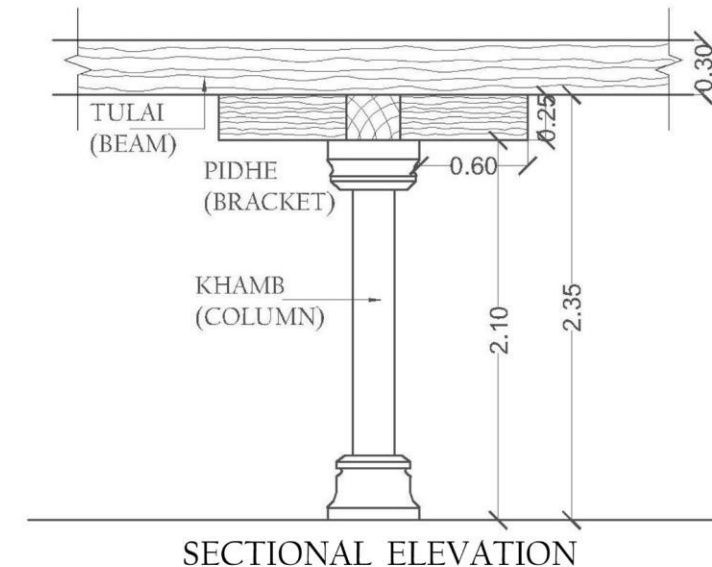
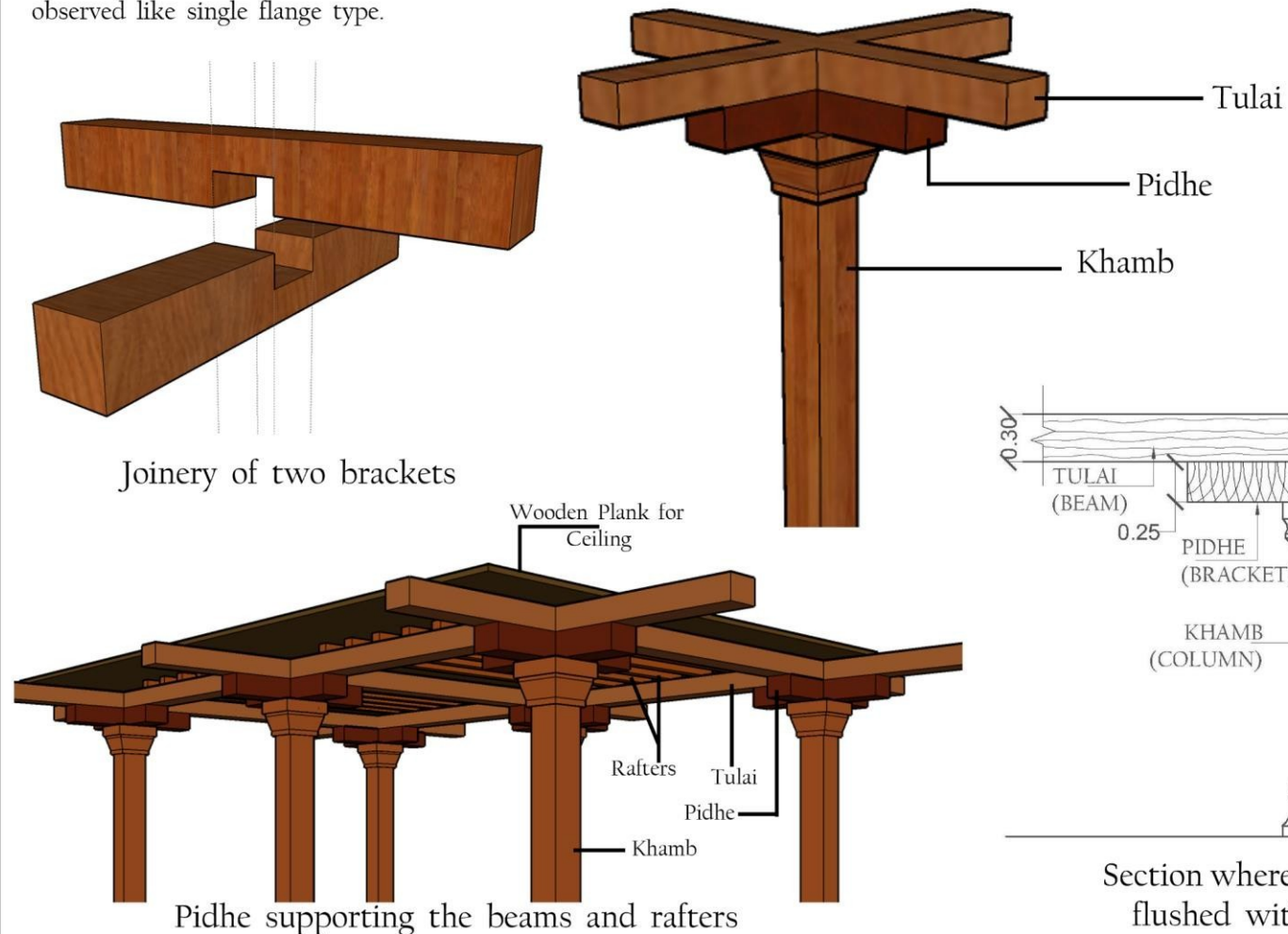
Alibag village, 2021

SUBJECT:- Structural Conservation I

Building element & construction system of it - Case of Chass Village

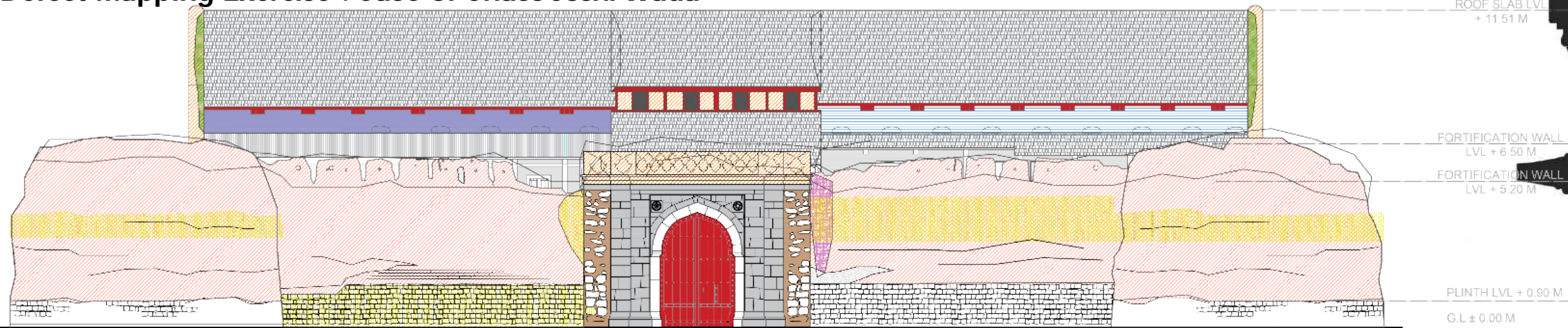
PIDHE AND TULAI

Using wood in domestic architecture was in common practice because most of the construction was done on the principles of wooden frame structure and column. In the earlier period of Maratha architecture, not much of detailing was done on columns (khamb) or on the beams (tulai). They were plain and simple. In the later period of Maratha architecture, during the Peshwa rule, more beautification of the interiors took place. It was this period when the Maratha architecture was at its peak. Brackets were intricately carved with motifs of leaves, flowers and bird figures and sometimes of crocodiles. To support the Tulai or beams, the column sections alone were not enough, so wooden brackets or pidhe were introduced on which the tulai could rest safely. Where the columns were flushed into walls, the tulai is rested on the wall. There these brackets are observed like single flange type.



SUBJECT:- Structural Conservation I

Defect Mapping Exercise : Case of Chass Joshi Wada



EAST SIDE ELEVATION



WADA FRONT ELEVATION

DEFECT MAPPING GLOSSARY

STRUCTURAL CRACKS	EFFLORESCENCE
VEGETATION GROWTH	MISSING CLAY TILES
BROKEN ELEMENTS	DILAPIDATION
LOOSE MASNORY	NEW ADDITION
OIL PAINT	IMPROPER REPAIR
DISCOLOURATION	DRY ROT
INPROPER POINTING	ADOBE BRICKS

SUBJECT:- Structural Conservation I

Identifying the problems in Historic Structures



Sardar Panse wada, Sonori, Purandar, near Malhar gadh.

Materials used: basalt stone, clay bricks, timber, lime mortar and lime washes.

Damage due to natural elements.

- Extensive vegetation growth due to lack of maintenance and abandoning of the wada.
- Lime mortar from stone masonry and brick masonry keeps dropping and thus cracks are visible.
- Decay of wood due to non maintenance and rain water and sunlight

All pictures by author



SUBJECT:- Structural Conservation I

Identifying the problems in Historic Structures

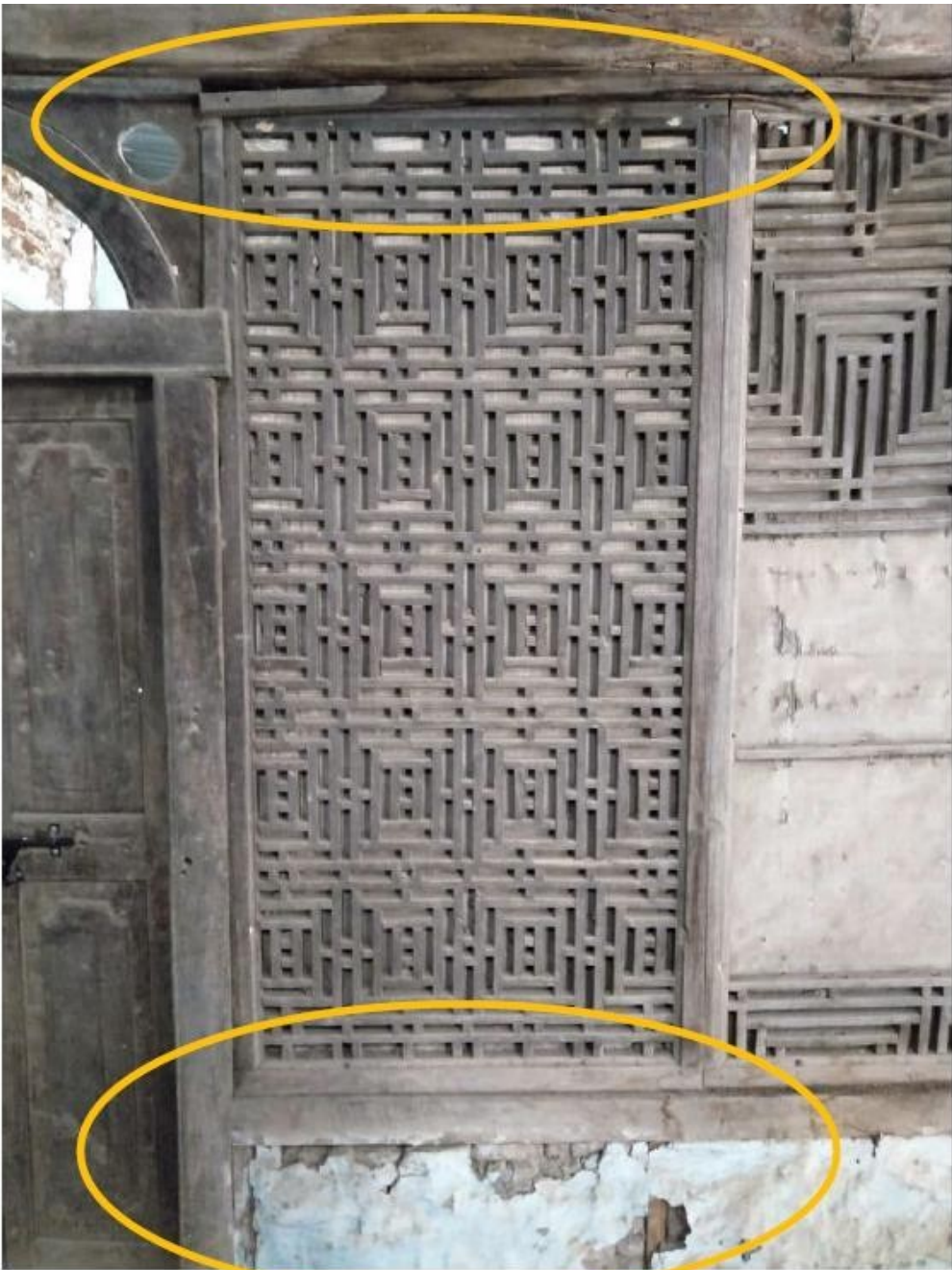


Sardar Panse wada, internal spaces.

Damage due to natural elements.

- Wooden stairway is broken due to non maintenance and decay of wood.
- Wooden beams are sagging.
- Internal lime plaster is coming off and some brick masonry are exposed.

All pictures by author



SUBJECT:- Introduction to Conservation

TOPIC- Critical Appreciation of a Conservation Project and design of new building in a Historic context – Case studies

PHOTOS BEFORE CONSERVATION



Weathered woodwork was retained because it was still functional, and also because it spoke of the age and history of the building.

Traditional materials and construction systems which included masonry walls and timber posts and beams with earth roofs, were to be used, both in the repair of the existing building and in the new-built sections.

New materials introduced were wiring for electricity, bitumen felt for waterproofing on the roof, and glass for windows.

AIM

In the restoration process one of the principal aims was to retain as much as possible of the original fabric.

That included building elements such as walls, beams, pillars, and windows – these were to be repaired rather than replaced, and to be repaired in situ rather than rebuilt.

Where rebuilding was necessary, the materials were salvaged and reused.

Intact bricks were re-laid; broken bricks remixed and remoulded.

Wooden balconies and screens were re-assembled from the salvaged fragments, with some new timber sections pieced in where required.

THE LAMO CENTRE

SUBJECT:- Introduction to Conservation

TOPIC- Critical Appreciation of a Conservation Project and design of new building in a Historic context – Case studies

CONSERVATION



CONSERVATION



EAST SIDE WALL AFTER THE RESTORATION



LOCAL CRAFTSMEN

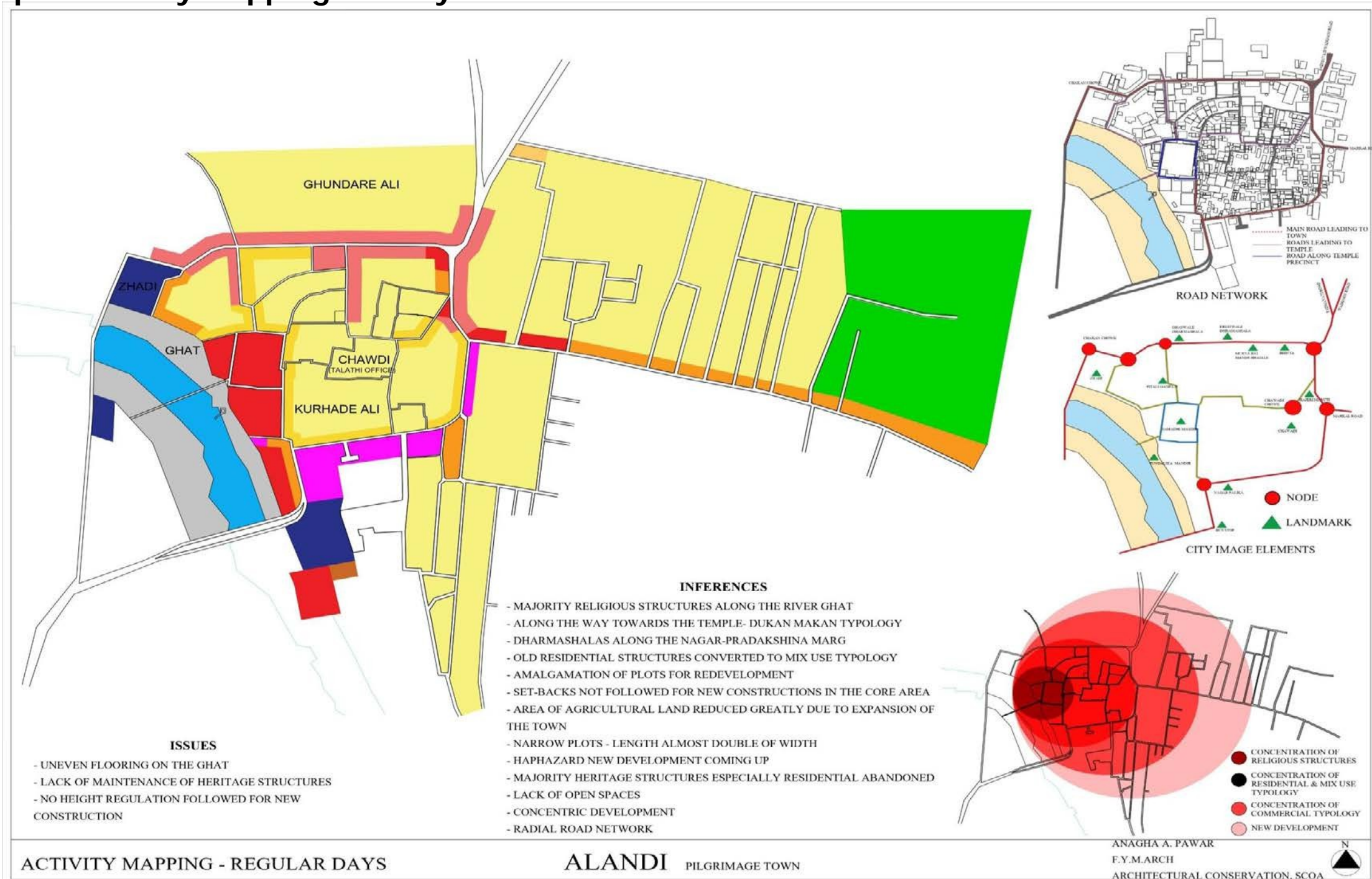
THE LAMO CENTRE

THE LAMO CENTRE

Subject – Conservation Studio II

Studio Project – Urban Conservation Policies and strategies for Historic Pilgrim Town of Alandi with focus on Samadhi Precinct.

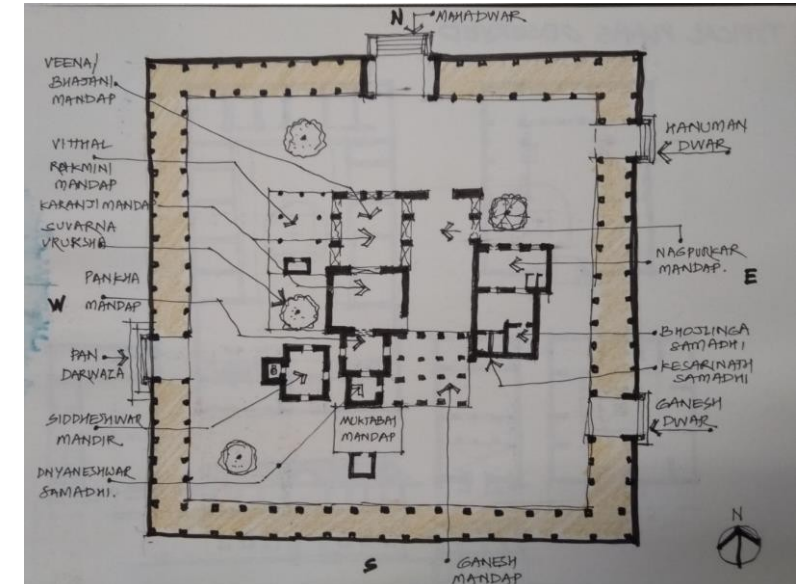
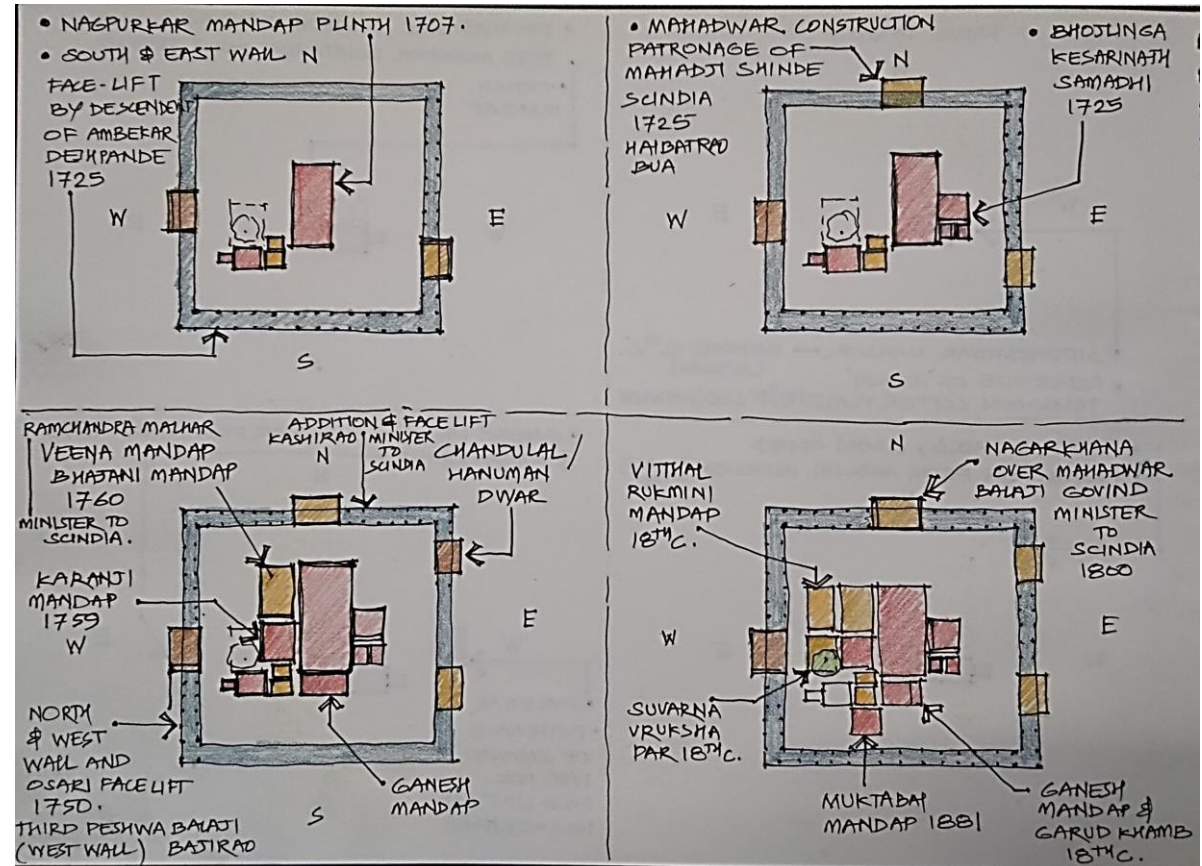
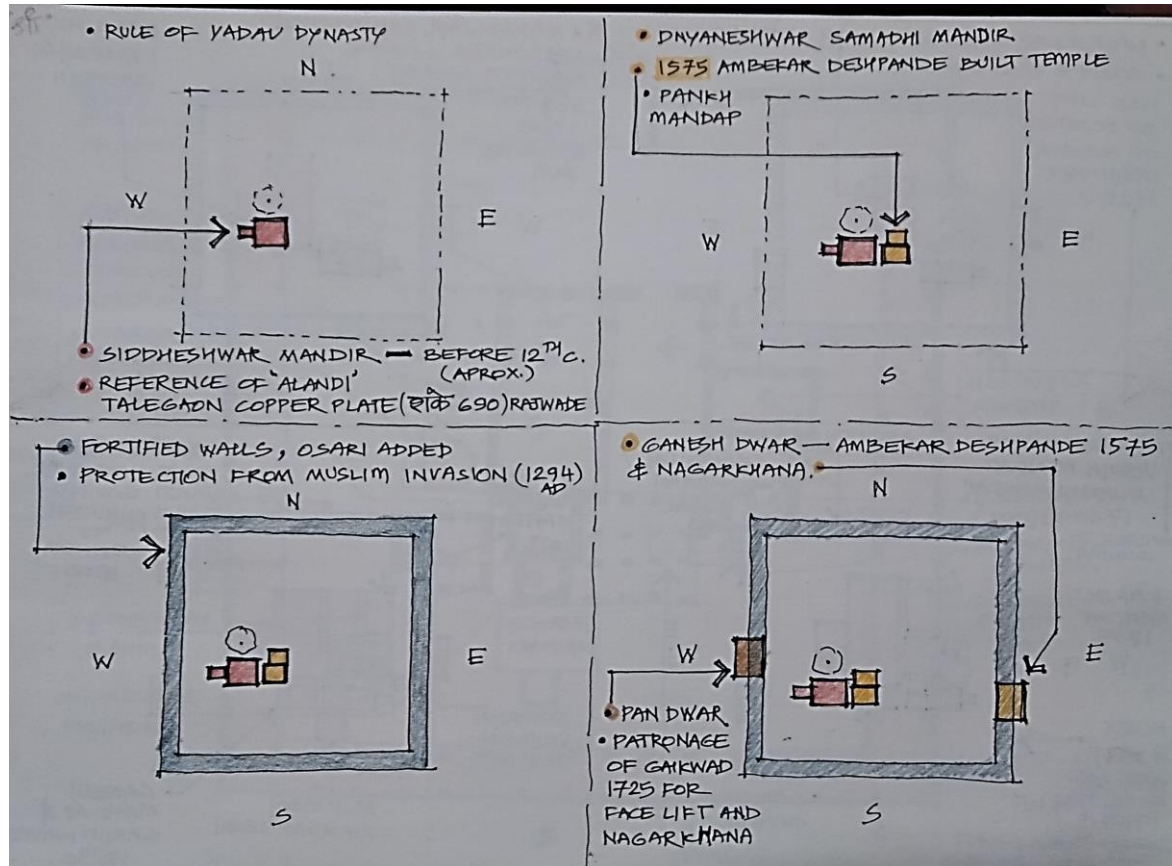
Topic – Activity mapping in Study Area



Subject – Conservation Studio II

Studio Project – Urban Conservation Policies and strategies for Historic Pilgrim Town of Alandi with focus on Samadhi Precinct.

Topic – Historic Evolution of Samadhi Mandir precinct

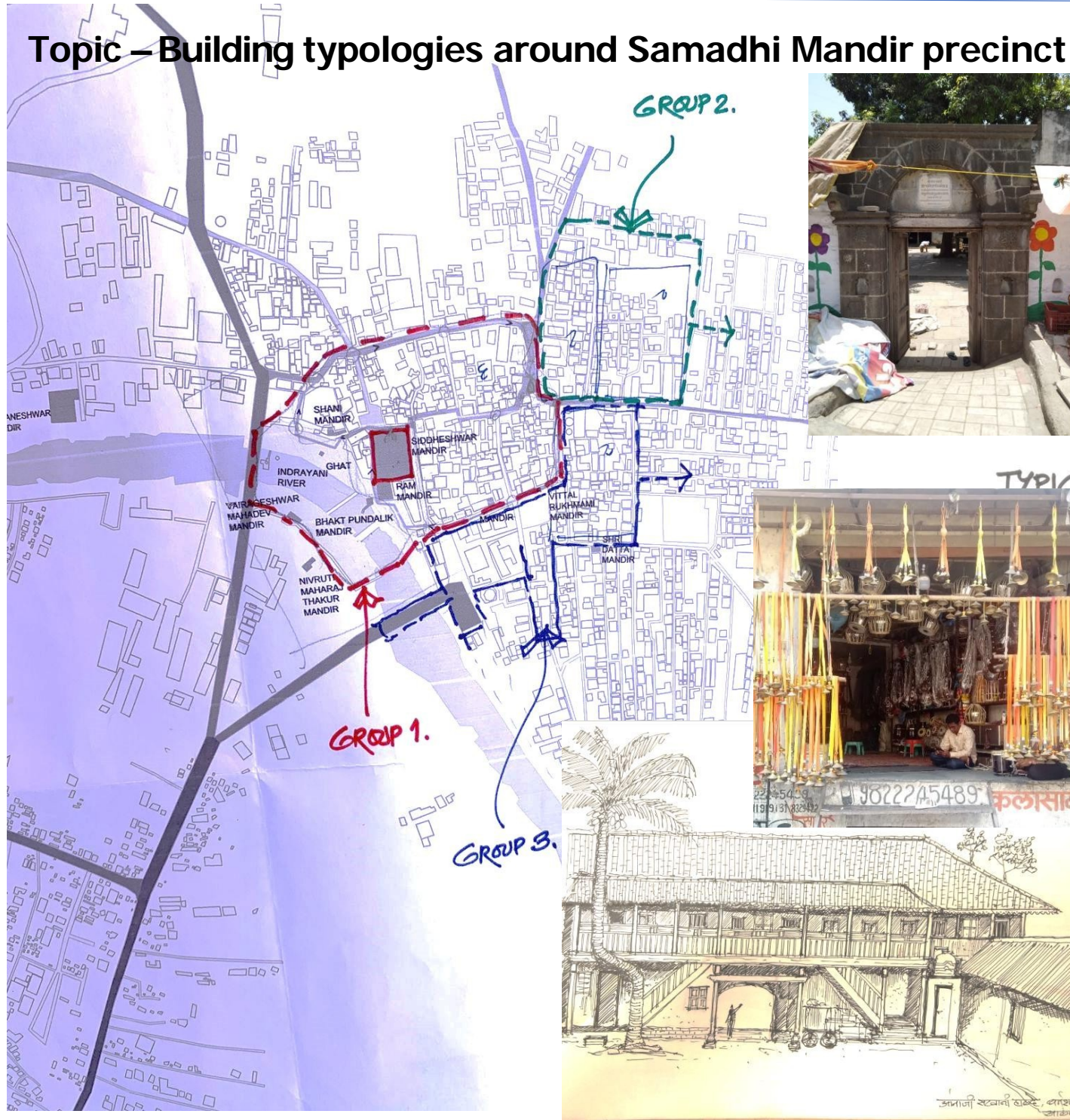


Work featured:
ClassWork

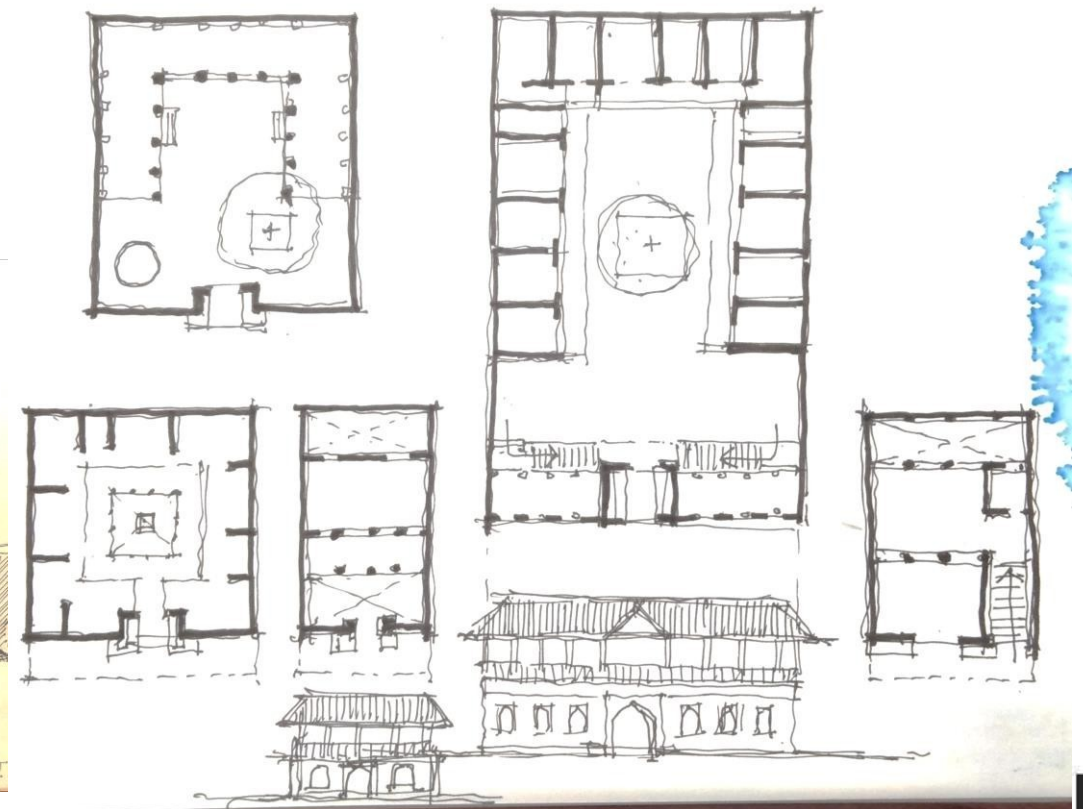
Subject – Conservation Studio II

Studio Project – Urban Conservation Policies and strategies for Historic Pilgrim Town of Alandi with focus on Samadhi Precinct.

Topic – Building typologies around Samadhi Mandir precinct



TYPICAL PLANS OBSERVED



Subject – Conservation Studio II

Studio Project – Urban Conservation Policies and strategies for Historic Pilgrim Town of Alandi with focus on Samadhi Precinct.

Topic – Building typologies around Samadhi Mandir precinct



STREETSCAPE - AALANDI

Subject – Conservation Management

Topic – Critical analysis of Conservation Management Plan of a World Heritage Site; Case studies

MANAGEMENT PLAN 2019-2023

UNESCO-World Heritage Site “Frontiers of the Roman Empire: Upper German-Raetian Limes”

Sonderband 5

Obergermanisch-Raetischer Limes
Upper German-Raetian Limes

Management-Plan 2019–2023

BEITRÄGE ZUM WELTERBE LIMES



Source: <http://www.limesdocicus.ro/wp-content/uploads/2012/11/map-english1-1024x966.jpg>

The 'Roman Limes' represents the border line of the Roman Empire at its greatest extent in the 2nd century AD. It stretched over 5,000 km from the Atlantic coast of northern Britain, through Europe to the Black Sea, and from there to the Red Sea and across North Africa to the Atlantic coast.



Source: <https://whc.unesco.org/document/135575>

The Limes in Germany cover a length of 550 km from the north-west of the country to the Danube in the south-east.



Subject – History , Theory and Criticism

Topic – Book Review of renowned author and his contribution to Indian /architectural History

History Theory & Criticism

Book Review of :

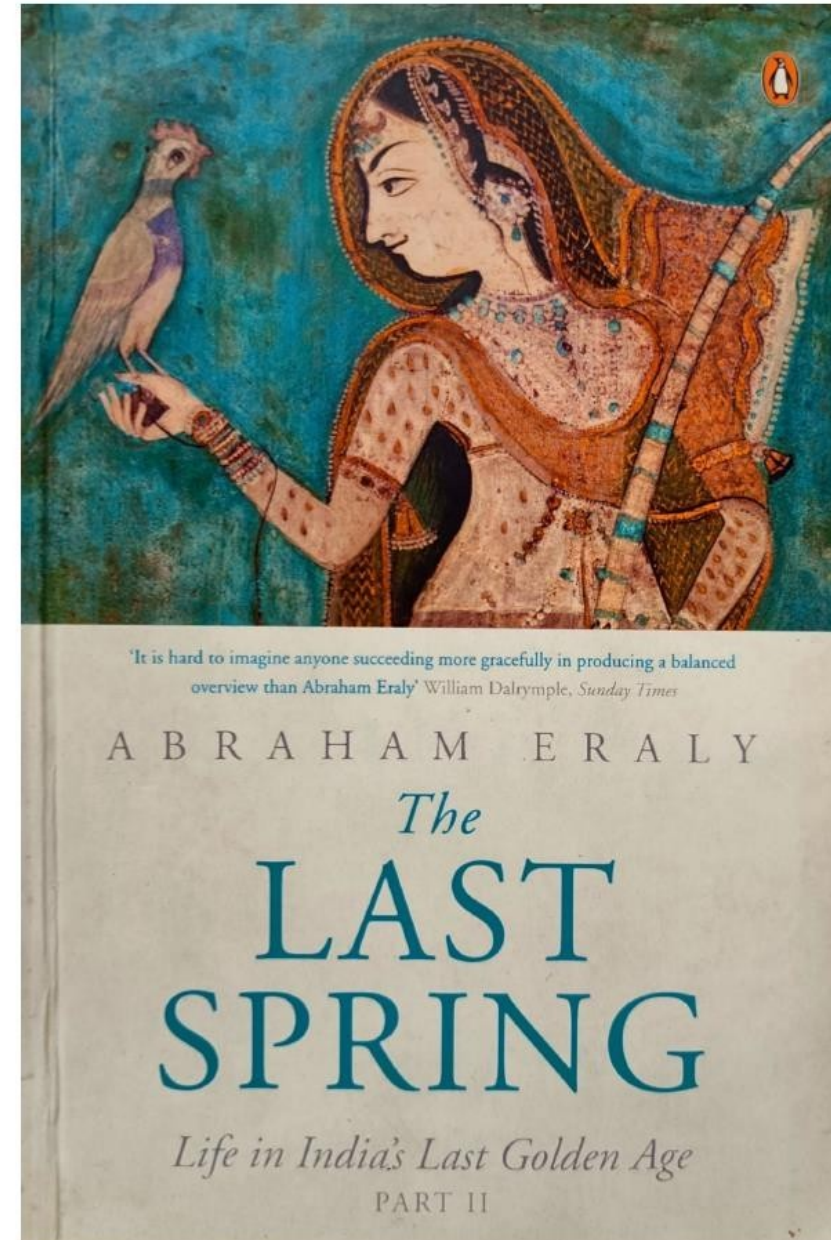
The Last Spring

Life in India's Last Golden age
(Part II)

Year of Publication : 2007
Publication : Penguin Books, India

Faculty name : Ar. Sonal Chitnis Karanjikar

Submitted by :
Himanshu Subandh
09 | FY M. Arch | Sem 2 | AC | SCOA



Cover Page of the selected book

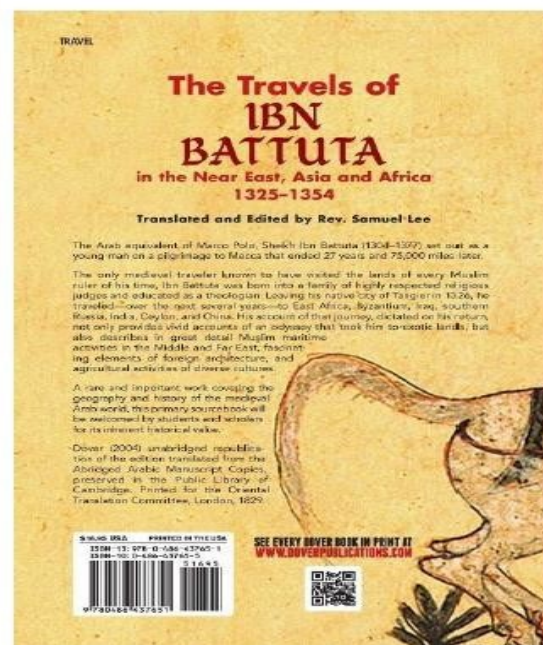
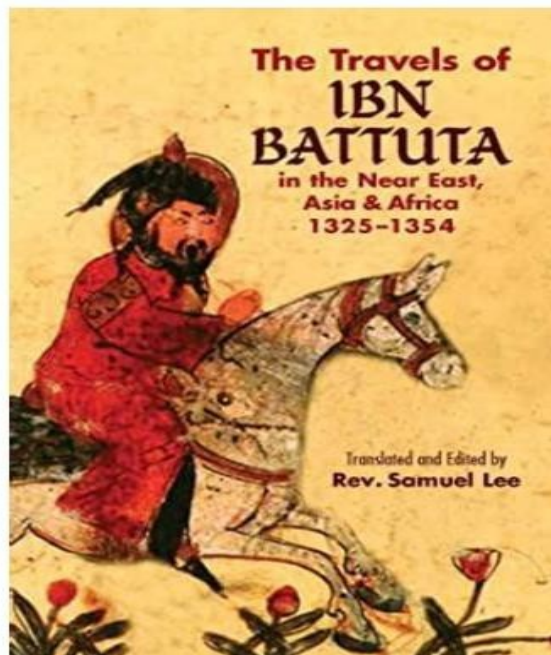
Work featured:

Book Reviews- Individual cases

Subject – History , Theory and Criticism

Topic – Book Review of renowned author and his contribution to Indian /architectural History

THE TRAVELS OF IBN BATUTA 1325-1354 Translated by Reverend Samuel Lee, 1829



CHAPTER I [North Africa]
CHAPTER II [Egypt]
CHAPTER IV [Syria]
CHAPTER VI [Iraq]
CHAPTER VII [Persia]
CHAPTER IX [Yemen-Zanzibar-Yemen]
CHAPTER XII [Central Asian Steppes]
CHAPTER XIII [Byzantium-Afghanistan]
CHAPTER XVI [India]
CHAPTER XVII [India]
CHAPTER XVIII [India]
CHAPTER XIX [the Maldives]
CHAPTER XXI [India to the Indonesian Archipelago]
CHAPTER XXIII [To China]

Writer :-
Ibn Battuta (1304-c. 1377)

Translate from British Orientalist
REV. SAMUEL LEE (1783 -1852)

Published by:-
J. Jetley for
Asian Educational Services, New Delhi

Work featured:
Book Reviews- Vardhan Vadgave

Subject – Research –I (Theory)

Topic – Review of different types of Research papers with representative case papers

Tourism and Travelling, Volume 1, 2017



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy,
40022, Ukraine
www.businessperspectives.org

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Arun Sharma (India), Suman Sharma (India)

HERITAGE TOURISM IN INDIA: A STAKEHOLDER'S PERSPECTIVE

Abstract

Incredible tangible and intangible heritage of India play a vital role towards the nation's overall growth and development. Ancient literature posse's sufficient references about the travelers, scholars and philosophers those preserved and portrayed the heritage for future generation which is apparently visible from various travelers' diaries, traditions and exhibitions. Despite a difficulty in finding out the right sentiment for expressing the true meaning of heritage, the concept of heritage has been explored to its core for an acceptable definition in this research study. This study suggests that heritage can act as an important holistic development tool for the overall community development. The opinion of stakeholders was recorded with the help of a questionnaire administered on local community nearby places of historic significance. The study provides ample scope and opportunities towards heritage tourism development in India as per stakes of local community. According to Mahatma Gandhi "A nation's culture resides in the hearts and in the soul of its people". Therefore local community has been considered as the ultimate ambassador for heritage and cultural tourism in this research paper.

Keywords heritage, preservation, community, stakeholder

JEL Classification Z30, Z32, Z38, Z39

INTRODUCTION

Over the past few decades, as the 'tourism studies' has emerged as an academic discipline, it has been dominated by other disciplines including economics, business and management studies. It has had very little time for the humanities, although it has accommodated important perspectives from geography, sociology and anthropology (Walton & Cooper, 2011). On the other hand, historians have recognized the potential significance of tourism's past for their discipline at a slow pace. They are not successful to identify the global (and globalizing) importance of tourism as a transforming set of economic activities as it has emerged as the largest and most persistent global industry of the new millennium. Literature recognized that both history and heritage are interlinked as "Heritage is the modern-day use of elements of the past and is not simply the past" (Timothy & Boyd, 2003). "Heritage is what contemporary society chooses to inherit and to pass on and history is what a historian regards as worth recording" (Turnbridge & Asworth, 1996). According to the Oxford English Dictionary heritage is something that can be passed from one generation to the next, something that can be conserved or inherited, and something that has historic or cultural value. Heritage might be understood to be a physical 'object': a piece of property, a building or a place that is able to be 'owned' and 'passed on' to someone else (Campanella, 2013).

FACT FILE

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KEYWORDS

Heritage, Reservation, Community, Stakeholder

ABSTRACT

Incredible **tangible and intangible heritage** of India play a vital role towards the nation's overall growth and development.

The concept of heritage has been explored to its core for an acceptable definition in this research study.

AIM

To Understand heritage as a holistic development tool for the overall community development.

INTRODUCTION

Historians have recognized the **potential significance of tourism's** past for their discipline at a **slow pace**.

Literature recognized that both **history and heritage are interlinked** as "**Heritage is the modern-day use of elements of the past and is not simply the past**".

"Heritage is what contemporary society chooses to inherit and to pass on and history is what a historian regards as worth recording"

heritage is something that can be passed from one generation to the next, it can be physical thing.

There are also various practices of heritage that are conserved or handed down from one generation to the next. (**Intangible Heriage**)

Subject – Research –I (Theory)

Topic – Attempt of identifying research problem – Intent writing based on individual inclination of research

Topic no. 2. Analysing & understanding the differences in the planning & design of historic *Wadas* of the *Konkan & Desh* Regions of *Maharashtra*.

Aim: Comparative study of the residential typology of wada, in the *Konkan & Desh* Regions of *Maharashtra*.

Objectives:

1. To analyse differences in the aspects of planning, space making of wadas in *Konkan & Desh* region.
2. To study architectural & structural elements and materials in context of *Wadas* in *Konkan and Desh* regions.
3. To understand various spatial aspects of *Wada* typology in the context of *Konkan & Desh* region.

Introduction:

The architecture of wadas and Gadhis were one of the best examples of not only socio-cultural, economic status but also how the architectural design & planning was envisaged in terms of climate response and ecological harmony.

Maharashtra as a region has the great Deccan plateau, the coastline region or Konkan, the plains or the Desh surrounded by the Sahayadris, thus Maharashtra enjoys different climates within its geographical boundaries. The residential typology developed here, was in direct response to its immediate surroundings, ecology and climate and thus presents the same typology of wadas appear different in different geographical settings within the political boundary.

The Desh and the Konkan region are different in terms of climate and natural resources which are some aspects why the residential typology shows notable differences in their architectural design & Planning.

Aditya Mandgaonkar, Roll.no. 05, F. Y. M. Arch. Conservation, Sem-II, 2021-2022, SCOA, Pune

1) Topic One :

Broader Study area : Rejuvenation of the Sitar Galli in Miraj

Significance : (Classical)Music has been the backbone of India's rich culture. It has been living for thousands of years and has seen phases of evolution, glory and a continued popularity even today. Both Vocal and Instrumental music are highly celebrated across the globe. Though there seems to be a rise in instrument learners, the number of these instrument makers are limited to a few. It also happens that these craftsman belong to a few places in the nation. Miraj, is one(and only) such place in Maharashtra. In order to achieve the rejuvenation of these places, it is necessary to identify and study them in the first place. Hence, a research is proposed.

Title : Exploring traditional towns engaged in Sitar making in India

Aim : To identify traditional towns that are engaged in making Sitar in India.

Objectives :

- To understand the emergence of Indian Classical Music
- To learn about Sitar as an Indian Classical Instrument
- To identify and study towns involved in making of Sitar
- To understand the possible reasons and patronage for making the instrument.

Papers and Links for relevant studies :

- <https://www.kosha.co/journal/rebirth-of-a-pumpkin/>
- http://ijetsr.com/images/short_pdf/1510499750_175-178-ietep921_ijetsr.pdf
- <https://homegrown.co.in/article/804913/the-musical-village-of-bengal-that-changed-the-craft-of-sitar-making-in-india>
- <https://www.jstor.org/stable/43297416>
- <https://zizekstudies.org/index.php/IJZS/article/download/980/1069>

Work featured:
Himanshu Subandh

2021-22

Work featured:
Aditya Mandgaonkar

F.Y.M.ARCH- SEM 1

Subject – Elective –II

Topic – Urban Design – Analyzing a historic town based on different theories and parameters

Historical Growth and Developments of the City of Lahore

The early settlements: The earliest authentic written source from pre Muslim times dates back to the 982 in an anonymous geographical treatise, the Hudud al Alam, where Lahore is mentioned; as a shahr (town) populated by infidels with numerous districts, markets, temples and orchards. It was then a dependency of Multan, in the writing of Al-Biruni (1058-59), Lahore appears as the name of the proper territory, whose capital was Mandahukur or Mandakkakor. In the late 11th century it was a flourishing town, where a saint Sayed Al Hajveri resided.

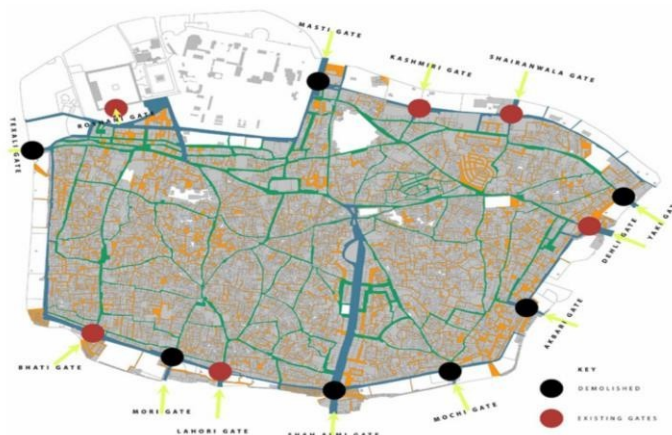
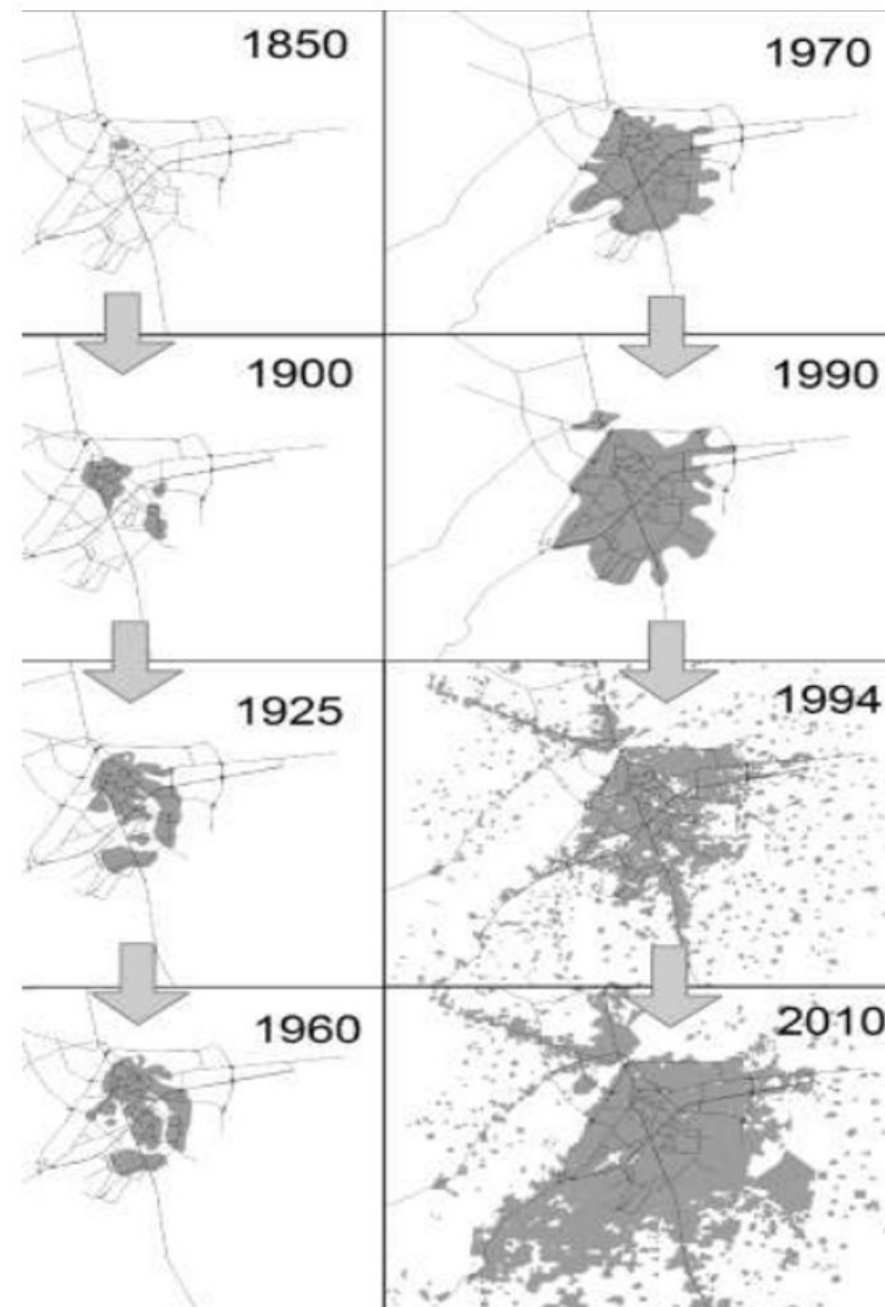


Figure 2. Walled City of Lahore (source: Zahid, 2021)

<https://journals.vgtu.lt/index.php/JAU/article/download/15183/10892>

ADITYA MANDGAONKAR ROLL NO.5, ELECTIVE-II, SEM-II, F. Y. M. ARCH. CONSERVATION, SCOA, 2021-2022

https://www.researchgate.net/publication/317559382_Analyzing_the_City_Urban_Form_of_Lahore_Pakistan_through_its_evolution



The evolution and growth of the walled city

Work featured:

Aditya Mandgaonkar

Subject – Elective –II

Topic – Urban Design – Analyzing a historic town based on different theories and parameters

Journal of Architectural and Planning Research
36:4 (Winter, 2019) 294

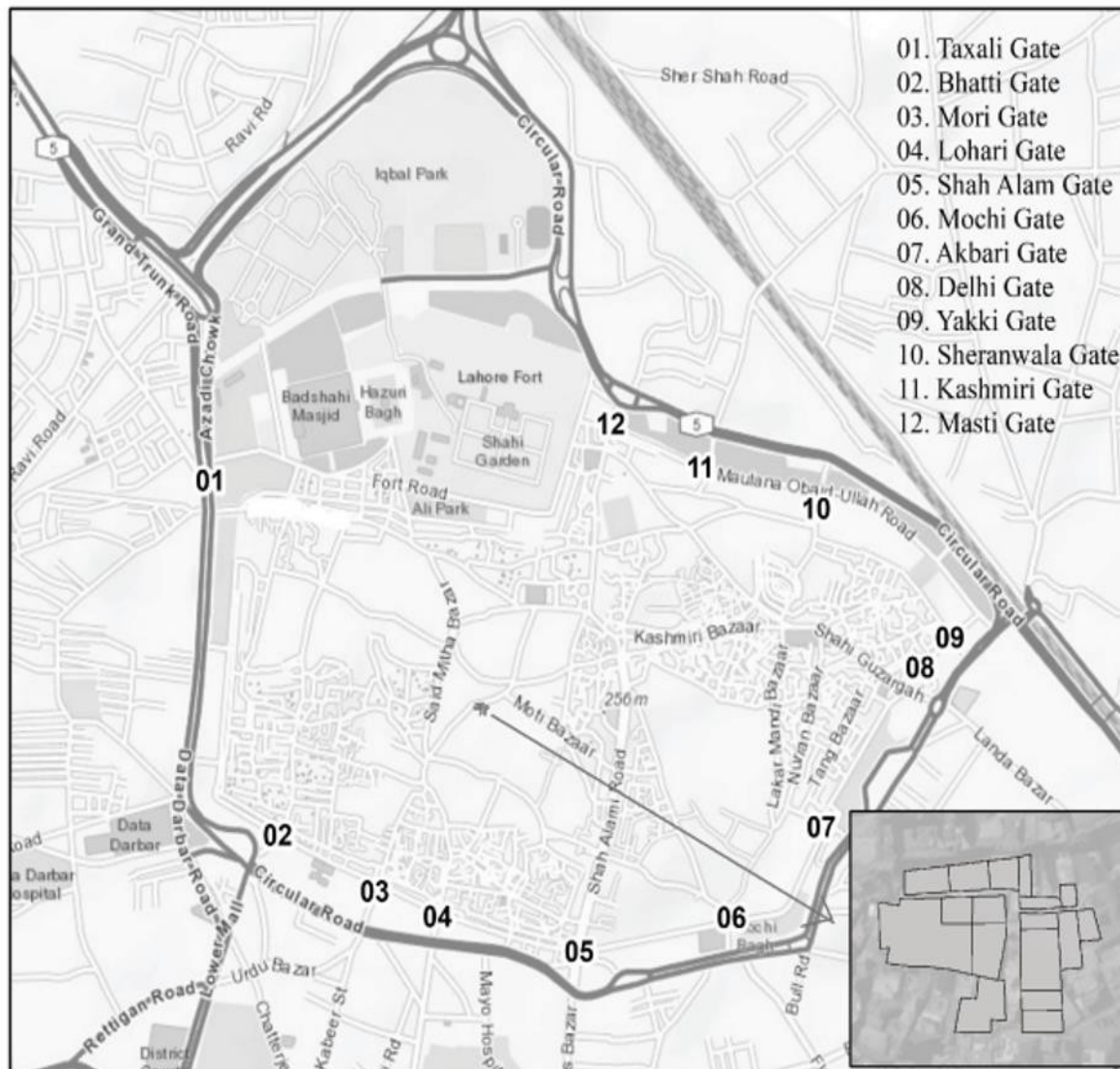


FIGURE 1. Location of Kucha Vahrian within the WCL and detail map (Source of base map: Esri GeoEye).

[https://www.academia.edu/53289504/Urban Heritage of the Walled City Of Lahore Critical Analysis and the Way Forward for Policy](https://www.academia.edu/53289504/Urban_Heritage_of_the_Walled_City_Of_Lahore_Critical_Analysis_and_the_Way_Forward_for_Policy)

Journal of Architectural and Planning Research
36:4 (Winter, 2019) 295

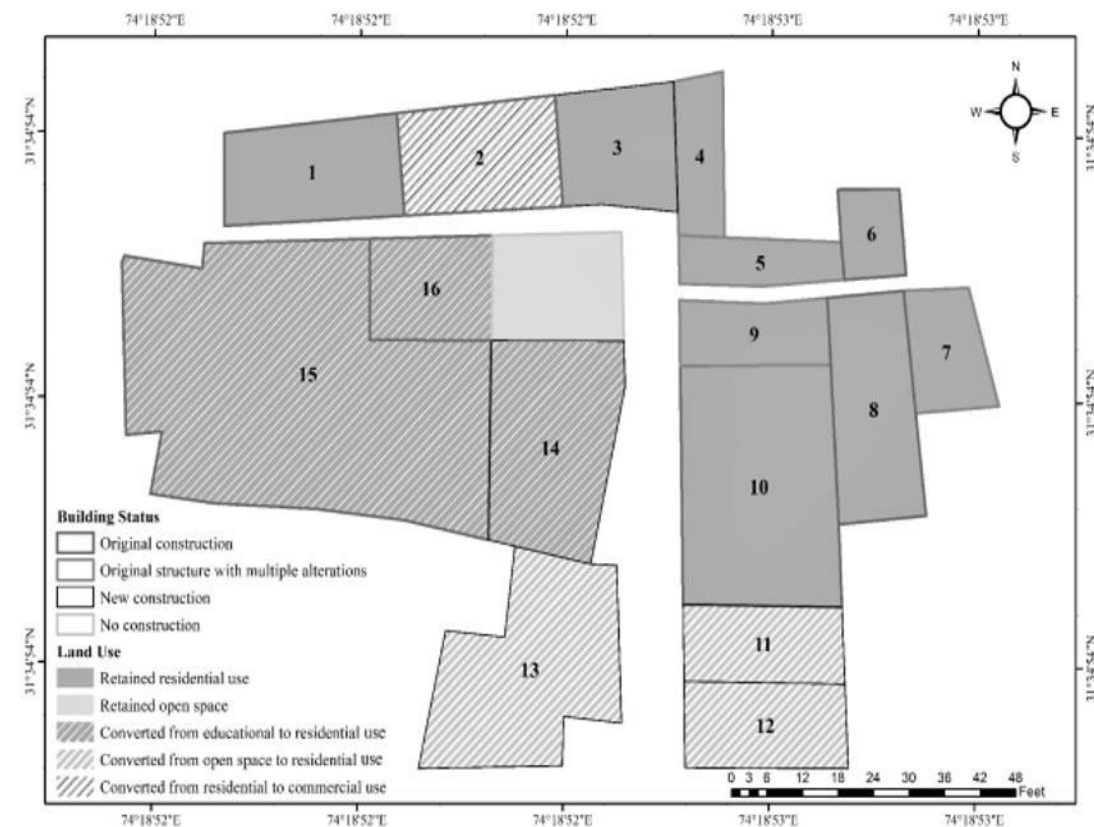


FIGURE 2. Transformations in Kucha Vahrian.

ACADEMIC WORK

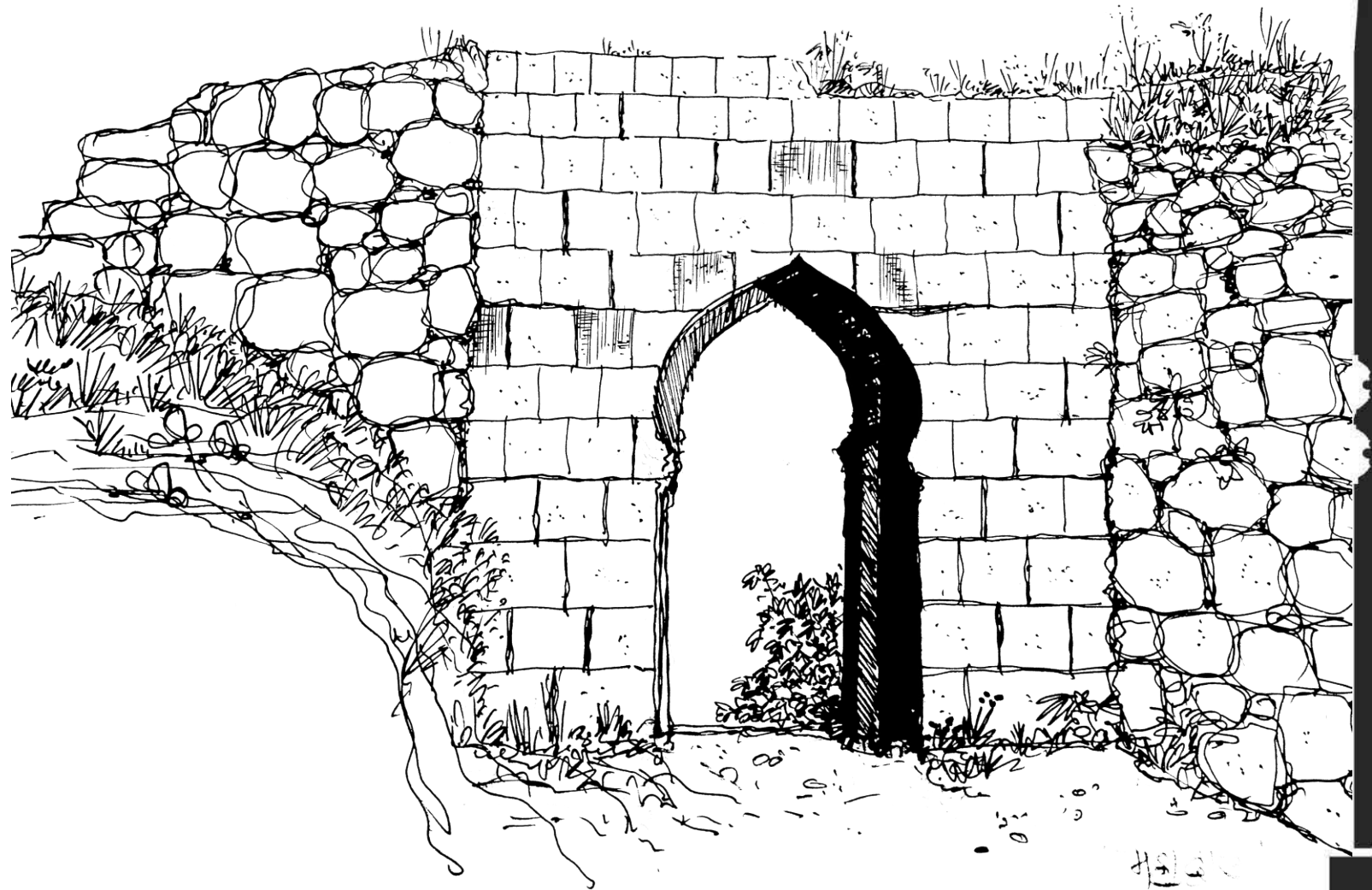
STUDENTS WORK OF

M.ARCH ARCHITECTURAL CONSERVATION

ACADEMIC YEAR 2021-22

Syllabus- 2019 pattern

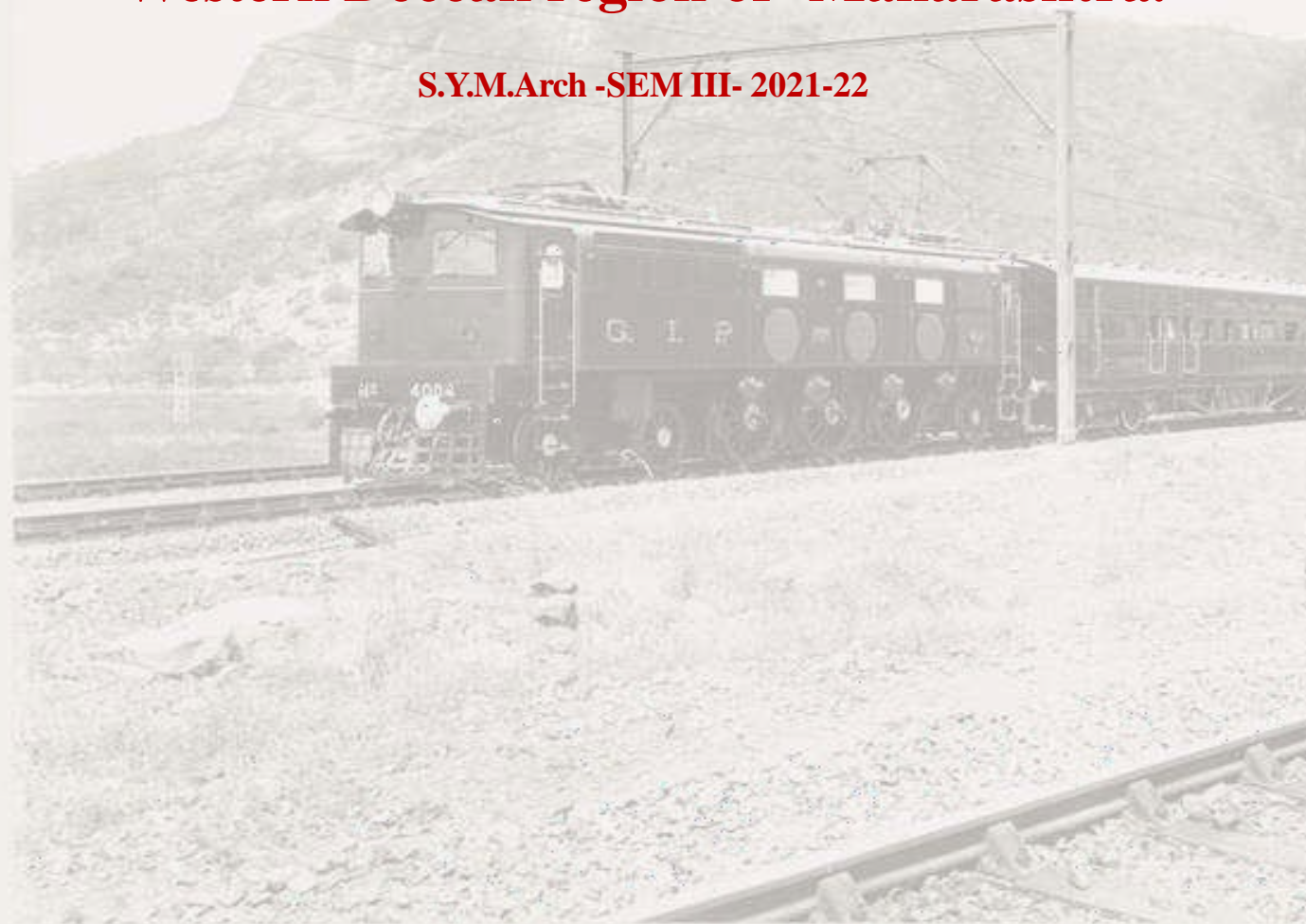
Semester III and IV



Subject – Cultural landscape

Safeguarding the Colonial Rail- Cultural Landscape along Railway Route of Bombay Port – Poona Cantonment in Western Deccan region of Maharashtra.

S.Y.M.Arch -SEM III- 2021-22



DECCAN QUEEN.

This studio exercise aims to explore the erstwhile GIPR rail route connecting Bombay Port-islands in Konkan to Poona Railway junction along 4 cantonments of Deccan plateau dealing with the rugged mountainous route and developing the stretch favorable for Railway pit-stops and serving stations and railway towns/ colonies along as 'Infrastructural development' for the foresighted vision of economic development by British in India as their colony . This new railway culture strengthened the ancient network of routes pouring into *Dakshinapath* of the Ancient Buddhist period overriding the layer of Buddhism and Indo- Roman Trade by British colonial culture. This study route experiences technological challenges manicures through Industrial development shaping modern and industrial heritage into the picture of varied geographic terrain and harbors varied expressions of cultures with prominent factors/agents –. British Railways has had a long-lasting impact along this stretch to its zenith Early 20th Century and has found distinct tangible and intangible expressions along the western coast, the rugged Western Ghats, and further meandering plains of Deccan Plateau.

Subject –Conservation Studio III

Studio Project –Cultural landscape studio

SHEET TITLE- PART I

INTRODUCTION

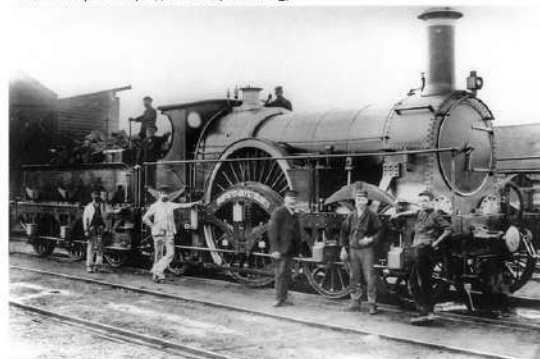
Railways are very significant heritage asset that became a driving force for the emerging economy during British period. It became a catalyst of social change that pushed through valleys and mountains to transport goods and passengers. Railways are also living heritage which is the connection we have to our immediate industrial past. The railway system including all the elements-architectural and engineering are of great value and falls under the category of modern heritage.

The concept of modern heritage, which includes industrial heritage is a recent revelation which goes beyond the focus on individual monuments. Conservation practices that started with a major focus on preservation of individual monuments has now changed. The advent of globalisation has given us a wider context to look at which includes sites, systems and networks that are remanence of experiences and processes of modernization. Modern heritage is defined by the UNESCO as “*architecture, town planning and landscape design of the 19th and 20th centuries*”.

This includes Industrial and Modern Heritage sites which are key examples to understand human development during the time of rapid socio-economic and technical growth. Railway is one such example of modern heritage which has created huge impact in the society. Unfortunately, due to poor awareness regarding significance of railway as heritage many architectural and engineering assets are deteriorating. Therefore, there is an immediate need to critically look at railway systems to avoid complete loss of such rich heritage.



16th-century minecart, an early example of unpowered rail transport <https://en.wikipedia.org/>



<https://www.historyextra.com/period/victorian/where-history-happened-the-birth-of-the-railways/>



A British Railways Jacobite steam locomotive pulls a train across the Glen Finnan Railway Viaduct in Scotland. Photo credit: Shutterstock

❖ AIM

- To safeguard British Colonial cultural landscape along the GIPR Railway route between Bombay Port-Poona Cantonment in Western Deccan Region of Maharashtra.

❖ OBJECTIVE

- To understand the Landscape and natural setting of Western Deccan region in context of European Colonization.
- To understand evolution of British Colonial culture, its influence on socio-cultural aspects.
- To identify, study and delineate British Colonial Cultural landscape along the GIPR Railway route between Bombay Port-Poona Cantonment with different historic layers as well as cultural resources in relation to it.
- To establish significance of each cultural resources shaping the cultural-landscape and discuss issues safeguarding the same
- To formulate conservation plan to safeguard the identified cultural landscape with holistic approach

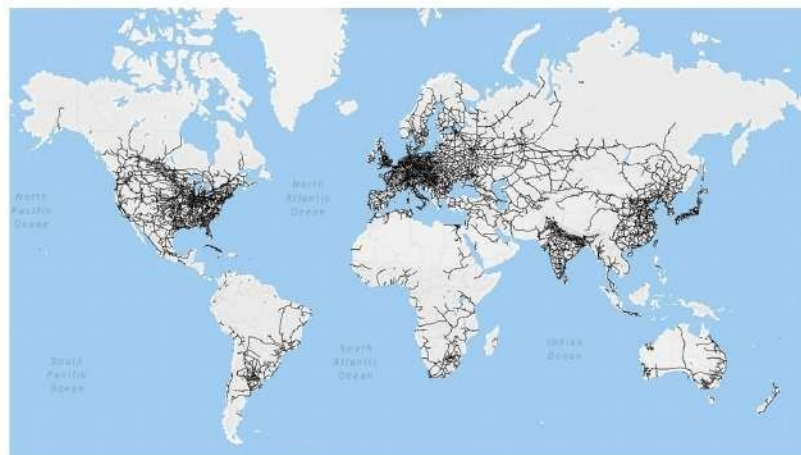
SCOPE AND LIMITATION

❖ SCOPE

- Scope of the study is to research, map and analyze how cultural landscape is shaped along the GIPR Railway route between Bombay Port-Poona Cantonment in Western Deccan Region of Maharashtra.

❖ LIMITATION

- Due to the prevailing restrictions caused by pandemic, a holistic study of the region was not possible. The study is limited to analyzing only railway culture along Bombay Port-Poona Cantonment in Western Deccan Region of Maharashtra.



https://en.wikipedia.org/wiki/Rail_transport#/media/File:World_railway_network.png



A lithograph of the Great Western Railway, 19th century. The railways allowed us to “speed up existence”. (Photo by SSPL/Getty Images)

SAFEGUARDING THE COLONIAL CULTURAL LANDSCAPE ALONG RAILWAY ROUTE OF BOMBAY PORT-POONA CANTONMENT IN WESTERN DECCAN REGION OF MAHARASHTRA

07
Department of Architectural Conservation
SY.M.Arch - Sem III
Academic Year- 2021-22
SINHGAD COLLEGE OF ARCHITECTURE,PUNE

Faculty : Dr. Vaishali Latkar
Ar. Sonal Karanjikar
Ar. Poorva Patil
Ar. Ruchita Belapurkar

Done by: Ramiya

Scale: N/A



Subject – Conservation Studio III

Studio Project – Cultural landscape studio

SHEET TITLE- INTRODUCTION OF RAILWAY SYSTEMS AND ITS CONNECTIONS WITH INDIAN SUBCONTINENT



- Surat was also had facing 2 problems –

1. The silting of Tapi river

2. Maratha warrior Chhatrapati Shivaji Maharaj, who had plundered the town twice.

- **TIMELINE OF IMPORTANT FACTORS –**

- **1600:** The British East India Company receives a Royal Charter from Queen Elizabeth I to trade with the East Indies

- **1665:** Governor Humphrey Cooke, appointed by the Crown, acquires more islands—Mahim, Sion, Dharavi and Wadala—from the Portuguese

- **1668:** The Crown leases Bombay to the Company, leading them to settle at Bombay Castle



In Bombay, company saw chance to turn Natural harbour into great maritime centre along India's Western Coast.

- Company understood need of the port, so they established customhouse, a warehouse, a quay and a court, marking the very beginnings of a self-sustained urban center in Bombay and also started fortifying it.

- The 2nd governor who contributed to shift of seat power of western presidency from Surat to Bombay.

- The British invested in extensive public works, and over some sixty years the seven islands of Bombay were merged into a single land mass and Mumbai docks was the major infrastructure.

- During early of 19th century, there was also an **explosive growth of railway networks in the subcontinent**. The railways, in conjunction with the efficient maritime trade through the Suez, had a **transformative impact on rural India**.

- **Railroads** were introduced to India for **quicker and more efficient access to trade**.

- Before that trade was done by either roads or water ways.

- British introduced the first passenger train on **16 April 1853**

- In **1862 – British India steam Navigation Company** was formed and was given the preference for **trade in India and overseas**.

- **1915 - Commissioning of the Port's own railway system interfaced with Trunk Railways**

- 1916-22 - Construction of roads, transit sheds, warehouses and support infrastructure.

PURPOSE OF RAILWAY LINES –

- To lower transport costs and to give English merchants easier access to raw cotton from India.

- Open the Indian market to British manufactured products such as cotton textiles.

- Railway construction started in 1853, with two “experimental” lines beginning in Bombay and Calcutta.

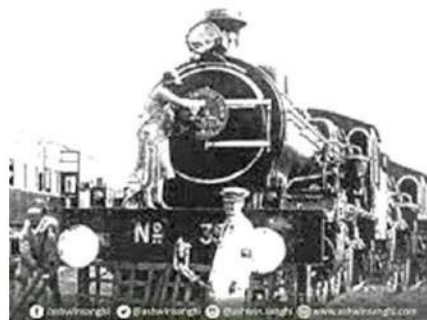
- Mostly radiating inland from the three major port cities of **Bombay, Madras, and Calcutta**.

- It helped them in economic development of India by benefiting government with a return of **5% of its investment**.

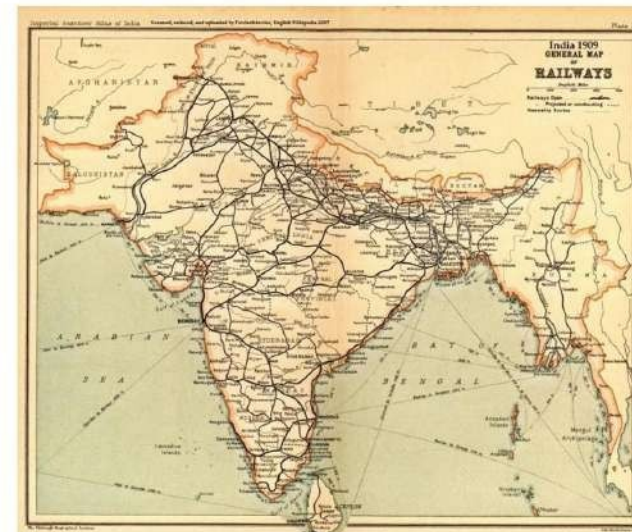
- It **reshaped the status of both domestic and foreign trades** in India by quick transportation of raw and agricultural goods.

- While the railway conveyed the huge might and power of the British and boosted India's efforts at commercial modernization, it did little to help local people in times of famine.

166 Years
of the first train journey in India.
16th April 1853



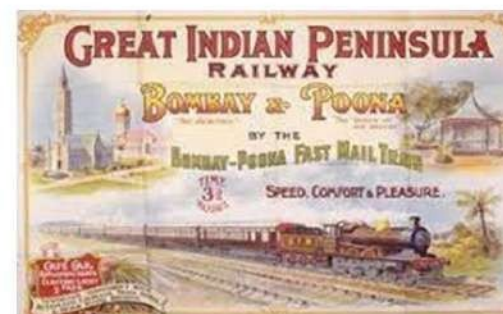
Source - <https://www.patrika.com/hot-on-web/167-year-of-indian-railway-on-13th-april-1853-first-train-ran-in-india-4435267/>



Map of Indian railway in 1909

Source - <https://www.environmentandsociety.org/exhibitions/famines-india/infrastructure-and-railroads>

Advertisement for the Great Indian Peninsula Railway for Poona races.



1853 – India opened new chapter with the debut of the first passenger railroad service which became part of India's vast Central Railway.

Source - <https://www.pinterest.com/pin/340444053051759375/>

- The first train started in Bombay and eventually all of India even the most remote parts were connected to each other by railway lines.



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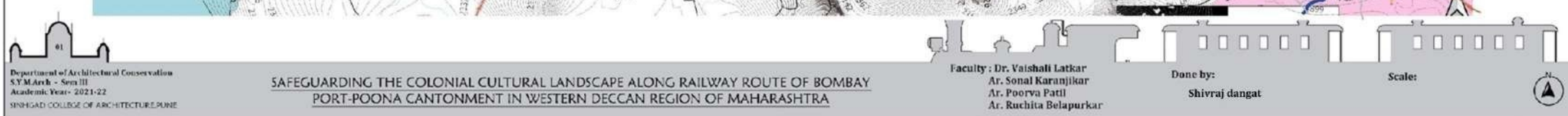
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SAFEGUARDING THE COLONIAL CULTURAL LANDSCAPE ALONG RAILWAY ROUTE OF BOMBAY
PORT-POONA CANTONMENT IN WESTERN DECCAN REGION OF MAHARASHTRA

STUDENT WORK

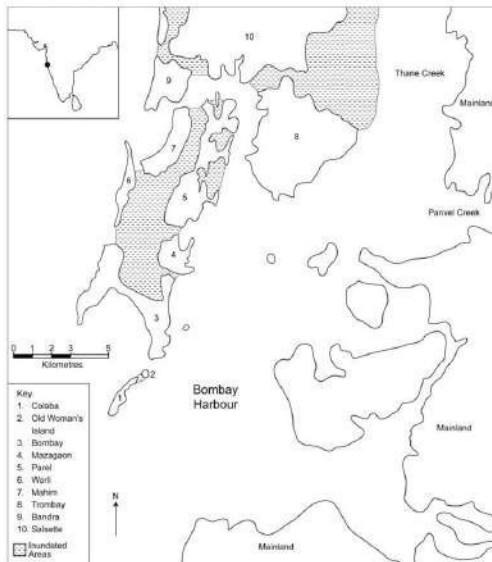


Subject –Conservation Studio III

Studio Project –Cultural landscape studio

SHEET TITLE- GEOGRAPHY, TERRAIN,CLIMATE OF CULTURAL REGION AND WHAT BINDS AS A CULTURAL REGION

BOMBAY:

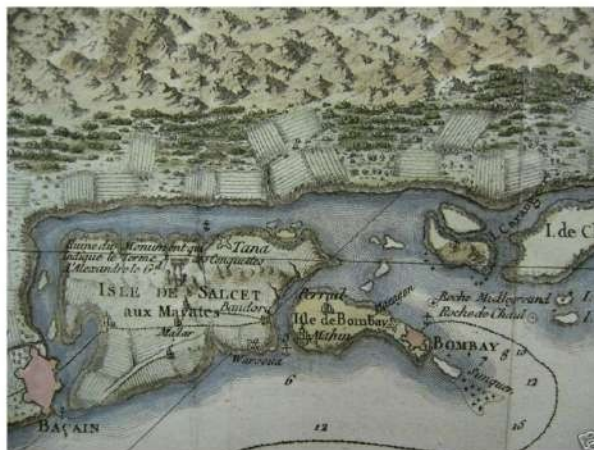


A map of Bombay as it was before the reclamations began. Source : sciencedirect.com

CLIMATE :Tropical climate with average annual temperature of 26 degree Celsius. Humid and muggy weather because of its proximity to the Arabian sea. In some parts, such as Bombay and its immediate vicinity, it is exceedingly unhealthy, liver complaint being more frequent and fatal there than in any other part of India. Rainfall was between June to October , summer months were unbearable. Warmest month is May avg. temp. 29 deg C

INTRODUCTION :Originally a group of 7 islands joined by a stretch of swamp that separated during high tide (1660s). The seven islets - Colaba, Old Woman's Island, Bombay, Mazgaon, Parel, Mahim and Worli

GEOGRAPHY AND TERRAIN : Located at 18 Deg 53' North to 19 Deg 16' latitude & from 72 Deg east to 72 Deg 59'. Irregular surfaces, presenting the diversities of low barren hills, mountainous tracts, valleys, and elevated table-lands. Partly rocky and partly marshy terrain. It had unhealthy marshy land with feverish swamps. Harbours were excellent, deep, without shoals and sheltered from storms



From a Surat-to-Bombay map by Benard, from Pierre de Pagès' 'Voyages Autour Du Monde', Paris, 1782; Source : Columbia.edu

CHALLENGES DUE TO GEOGRAPHY, TERRAIN AND CLIMATE:

The scattered nature of the islands made communication from one island to another difficult. A number of distinct islands was open because large areas were underwater at high tide and during the monsoon season (June to September), when water discharged from Thane and Panvel Creeks to raise the harbour's sea level. At other times it was possible to cross between the islands on foot.

Bombay was cut off from its geographic hinterland. Even though climate of Pune was favourable for British, the inclination of geography made the journey difficult. The roads were extremely bad and affected the development of resources. Rocky and barren land possessed unhealthy climate .Rivers were not navigable

Partly rocky and partly marshy terrain. It had unhealthy marshy land with feverish swamps. Scarcity of Fresh water. Even rivers were so bad that many valuable articles of produce were often left to perish in the fields, while the cost of those that do find their way to Bombay became enormously enhanced, to the extent sometimes of 200 per cent. The vast numbers of sheep fed in Candeish and the Deccan, which are sent down to the Bombay market, not one-third reach the city alive, and those greatly reduced in flesh.



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S.Y.M.Arch - Sem III
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SAFEGUARDING THE COLONIAL CULTURAL LANDSCAPE ALONG RAILWAY ROUTE OF BOMBAY
PORT-POONA CANTONMENT IN WESTERN DECCAN REGION OF MAHARASHTRA

PUNE:

INTRODUCTION :Poona, also called 'Queen of Deccan' after its elevated position atop the Deccan Plateau, it's pleasant climate and surrounding hills.

GEOGRAPHY AND TERRAIN : Pune (18° 31' N, 73° 51' E) is a plateau city situated near the western margin of the Deccan plateau. It lies on the leeward side of the Sahyadri. It is situated at a height of 560m above the mean sea level near the confluence of Mula-Mutha river. City is surrounded by hills on the east and the south. The Simhagad-Katraj-Dive ghat range is the southern boundary of the urban area. The highest point within the city is the Vetal hill (800 m) whereas the highest point of the urban area is the Simhagad fort (1400 m).



Map shows topography of Poona. Source : Past-India



Map shows topography of Western Ghats. Source : The Indian Express

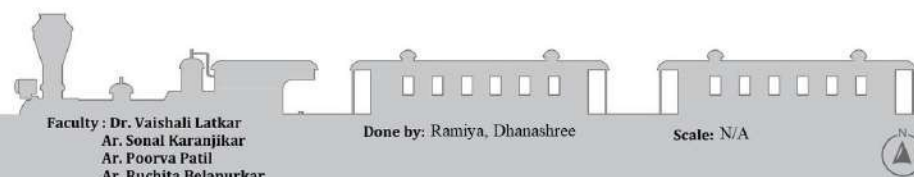
CLIMATE : The climate is typical monsoonal, with three distinct seasons-summer, rains and winter,as elsewhere in India.The height above sea leveland the leeward location with reference to the Western ghats have made the city climate moderate and salubrious. The mean daily maximum and the mean minimum for the hottest month - May is 37 deg. C and 23 deg. C respectively. The evening sea breeze from west/northwest keeps the city summer nights at bearable levels. The same for the coldest month of December are 30 deg. C and 12 deg. C respectively. The relative humidity ranges from 36% in March to 81% in August. Three fourths of the annual rainfall of 70 cm occurs in just four months from June to September.

WHAT BIND THE REGION TOGETHER:

The British then had to build a link from the hinterland to India's major ports for quicker transport of cotton and other goods as demand soared. This expedited matters for the British to introduce a railway in India.

The tip of the ice berg was the 1846 crop failure in America, that led to huge export of cotton from India. Cotton was produced in various parts of the Indian sub-continent and it took days to bring it to the nearest port to transport it to England through ships, the only major means of international communication then.

On August 1, 1849, the Act to incorporate the Great Indian Peninsula Railway came into being.



Faculty : Dr. Vaishali Latkar
Ar. Sonal Karanjikar
Ar. Poorva Patil
Ar. Ruchita Belapurkar

Done by: Ramiya, Dhanashree

Scale: N/A



Work featured:

Classwork- International port city connected to military junction- headquarters of South command

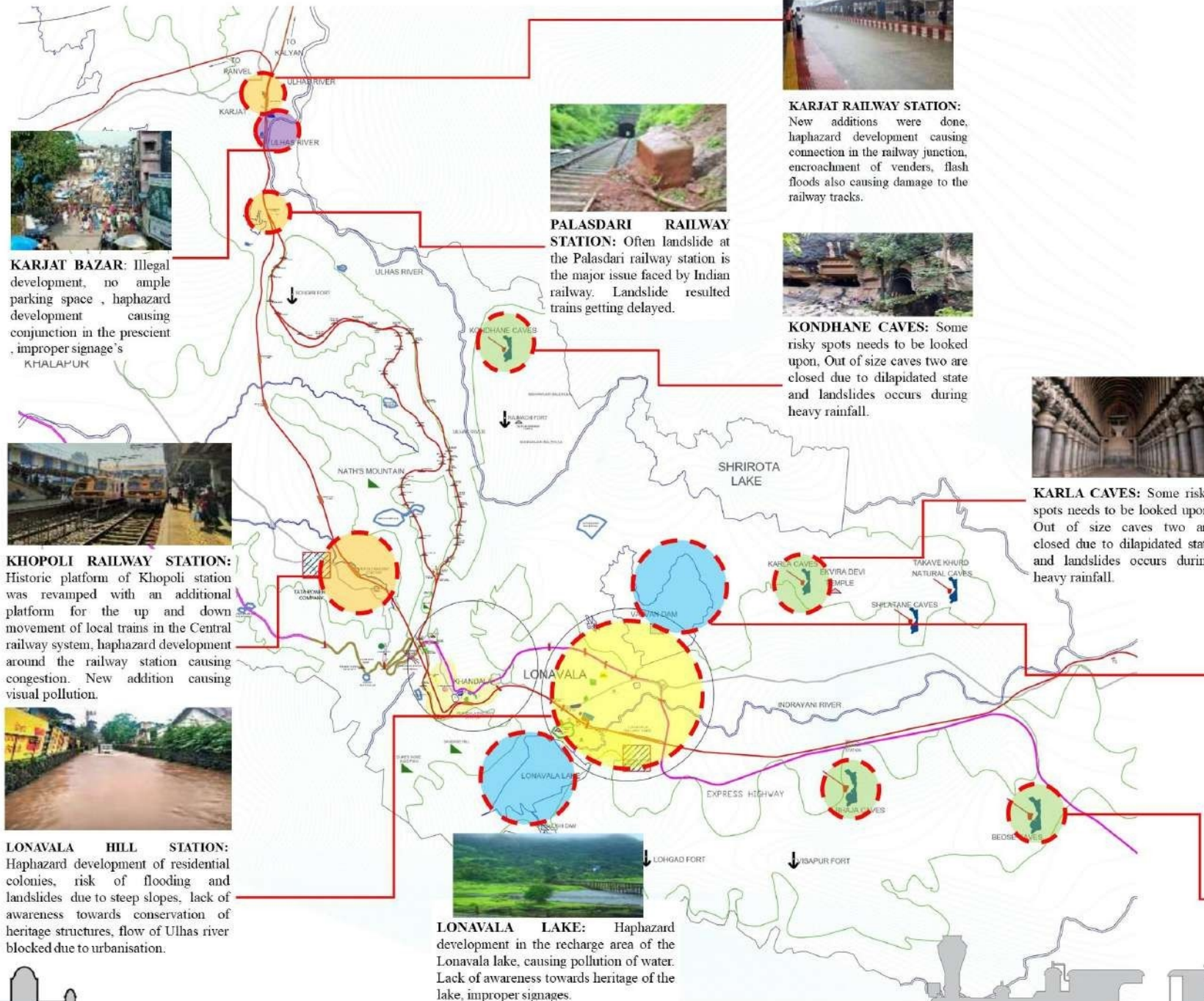
Subject –Conservation Studio III

Studio Project –Cultural landscape studio

SHEET TITLE- IDENTIFICATION OF ISSUES: KARJAT TO LONAVALA REGION

LEGENDS

NATURAL RESOURCES		SPACES AND FACILITIES	
	GHATS		HILL STATIONS
	PARKS		GROUND
	LAKES		MARKETS
	RIVERS		RAILWAY STATIONS
	DAMS		G.I.P.R. ROUTE (CENTRAL ROUTE)
	WATERFALLS		BRIDGES
	TERRAIN		SUB-STATIONS
	HILLS		TUNNELS
CULTURAL RESOURCES		COMMUNITIES	
	HOSPITAL		PARSI COMMUNITY
	ADMINISTRATIVE BUILDINGS		HINDU COMMUNITY
	PUBLIC BUILDINGS		MUSLIM COMMUNITY
	EDUCATIONAL BUILDINGS		RAILWAY COLONY
	RELIGIOUS BUILDINGS		DOCK LABOUR COLONY
	RECREATIONAL BUILDINGS		EVENTS AND FESTIVALS
	RAILWAY COLONIES		DEFENSE EVENTS
	RESIDENTIAL BUILDINGS		RECREATIONAL EVENTS
	RAILWAY CABINS		BRIDGES
	TEMPLES		TUNNELS
	CHURCHES		CULTURAL INDUSTRIES
	FORTS		
	CAVES		



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PORT-POONA CANTONMENT IN WESTERN DECCAN REGION OF MAHARASHTRA

Faculty : Dr. Vaishali Latkar
Ar. Sonal Karanjikar
Ar. Poorva Patil
Ar. Ruchita Belapurkar

Done by: SIDDHANT G.

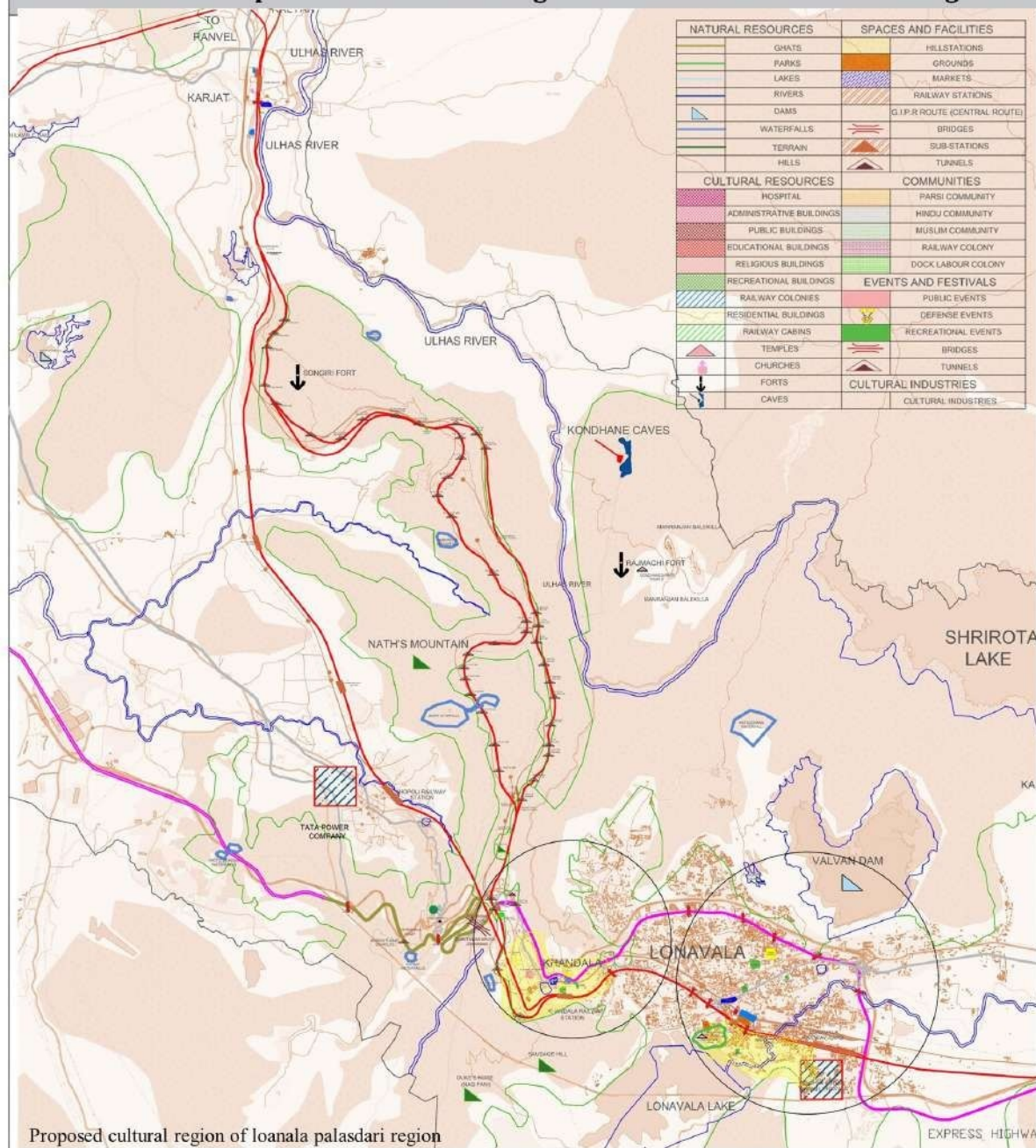
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Subject –Conservation Studio III

Studio Project –Cultural landscape studio

SHEET TITLE- Proposal For World Heritage Site - Palasadari to Lonavala Region



Karjat lonavala railway system are excellent examples of advanced transportation infrastructure constructed through mountainous terrain that had a significant impact on their corresponding geographical areas also socio - economic development.

Criteria(ii) to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design:

The Indian Railways are exemplary examples of the exchange of values based on technological advancements, as well as the impact of an innovative transportation system on the social and economic development of a multicultural region, which served as a model for similar developments in many parts of the world. In the colonial setting of its construction, the Indian Railways exhibit an essential technological and cultural transfer, especially with regard to the undoubtedly political function of the terminus station.

Criterion (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates significant stage in human history;

Across many parts of the world, the development of railways in the 19th century had a fundamental impact on socio - economic growth. The Indian Railways are exceptional cases of a technical ensemble, depicting development stages in elevated mountainous regions. The Indian Railways are excellent examples of how connectivity to the plains and plateaus of the Indian mountain ranges has been made available. They are representative of human societies' scientific and technical attempts to dislodge populations through the railway during this time period. They have been fully functional and well-maintained living lines. They are used in the same spirit and for the same purposes as when they were first created.

Integrity : The total length of the rail routes(29 km), including the stations, is included within the boundaries of the property. The property's boundaries are sufficient. The underlying integrity of the lines has been maintained, and the overall framework of the lines is now extremely close to the qualities of the lines as they were originally. The utilitarian respectability has been preserved thanks to the meticulously fixed and preserved lines. The validity of use has been maintained, and the lines have been used for large-scale and extremely durable vehicles from the start, with all of the characteristics associated with railroad separation of mountain regions. Up until now, traffic has been regular and consistent, and it provides the full range of initial administrations, notably for tourists and vacationers.

The site is in generally good condition in terms of foundation, highly specialized activity, and social use, allowing it to effectively communicate its qualities. The main threats to the properties are climatic and land hazards, which have consistently shaped a portion of the three railroads' regular operations. The *Palasdari Khandala* gradient region could be regarded as a potential hotspot for floods and avalanches.

Authenticity: Throughout the incredible history of railroad activity, the tracks have been re-laid and holding dividers have been remade at various points due to storms, avalanches, and rock-falls. Over the course of the century, various station structures on the three rail routes have been rebuilt, particularly those destroyed by quake or fire. In their most recent structure, these structures are being reestablished and maintained. More railroad-related designs have been resurrected and preserved in their original form. While new moving stock and motors have been introduced, the excess unique ones have also been maintained.

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S.Y.M.Arch - Sem III
Academic Year- 2021-22
SINHGAD COLLEGE OF ARCHITECTURE, PUNE

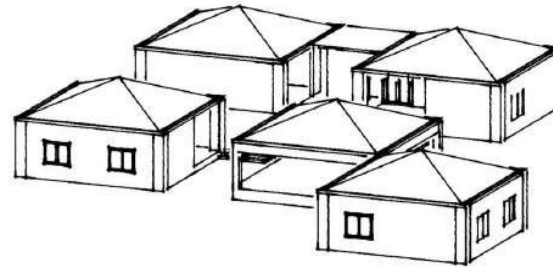
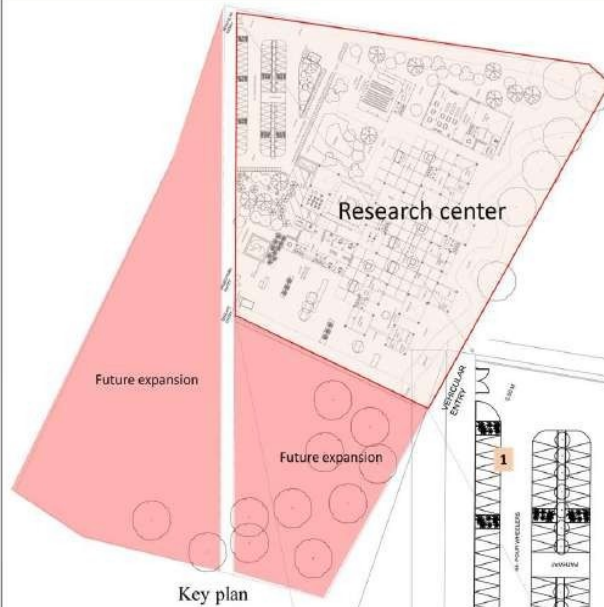
**SAFEGUARDING THE COLONIAL CULTURAL LANDSCAPE ALONG RAILWAY ROUTE OF BOMBAY
PORT-POONA CANTONMENT IN WESTERN DECCAN REGION OF MAHARASHTRA**

Faculty : Dr. Vaishali Latkar
Ar. Sonal Karanjikar
Ar. Poorva Patil
Ar. Ruchita Belapurkar

Done by:
Shivraj dangat

Scale:

SHEET TITLE- Railway Research and Cultural Center at Lonavala.



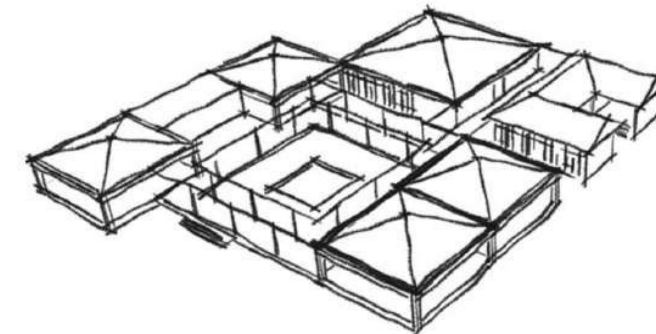
CONCEPTUAL VISUALISATION



Conceptual sketch



CONCEPTUAL VISUALISATION



CONCEPTUAL VISUALISATION

Ground floor plan Railway Research and Cultural Center.



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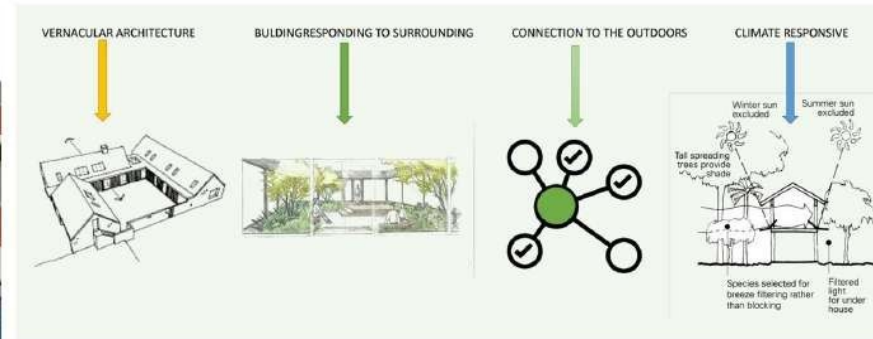


Subject – Conservation Studio III

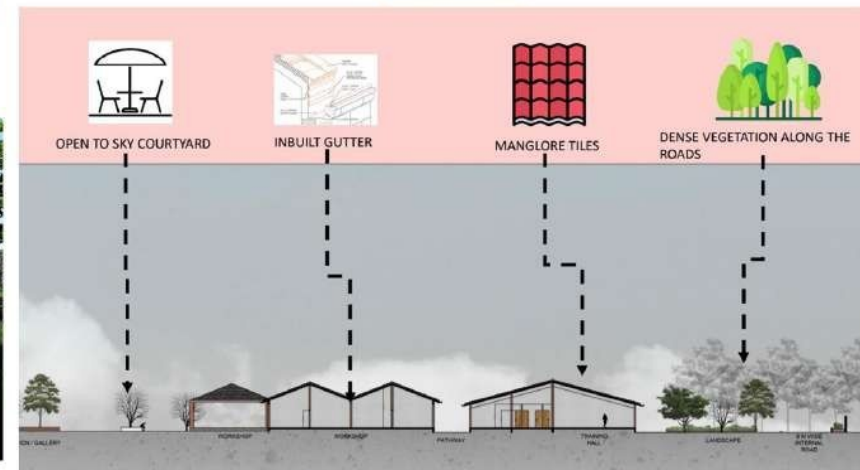
Studio Project – Cultural landscape studio

SHEET TITLE- Railway Research and Cultural Center at Lonavala.

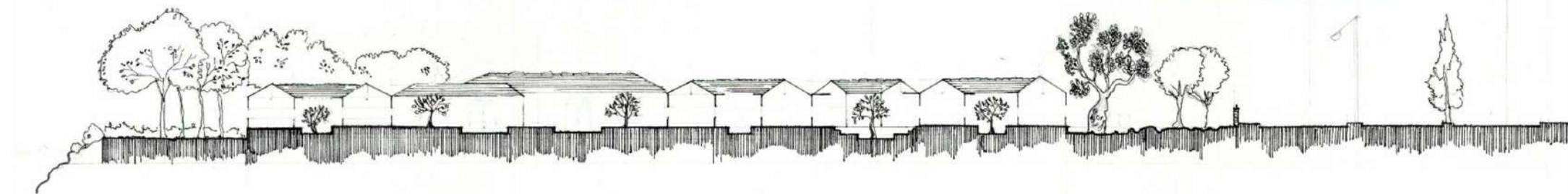
CONCEPTUAL VISUALISATION



Design guide



Section showing various material



Conceptual section

Department of Architectural Conservation
S.V.M.Arch - Sem III
Academic Year- 2021-22
SINHGAD COLLEGE OF ARCHITECTURE,PUNE

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Faculty : Dr. Vaishali Latkar
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Ar. Poorva Patil
Ar. Ruchita Belapurkar

Done by:
Shivraj dangat

Scale:



Subject –Conservation Studio III

OBJECTIVE:

- To orient student to the concept of Cultural Landscapes – from background till current trends of approaches.
- To orient students to the Indian context of interpreting culture and forms and meaning of landscapes through sacred geography.

UNESCO Cultural Landscape Case Study of Blaenavon Cultural Landscape

Blaenavon Industrial Landscape, South Wales, U.K.



<https://whc.unesco.org/en/list/984/>



Blast Furnace, Blaenavon ironworks

Source: <https://o8.alamy.com/comp/ERC5FB/blast-furnaces-blaenavon-ironworks-part-of-the-unesco-world-heritage-ERC5FB.jpg>



Balance Tower, Blaenavon ironworks

Source: <https://everything-everywhere.com/unesco-world-heritage-...>



Storage and Attached chimney, Blaenavon ironworks

Source: Blaenavon Management Plan



Pay Office, Blaenavon ironworks

Source: Blaenavon Management Plan

Characteristics of the site:

- It is a “**combined work of nature and man**” in that man-made features were formed in response to the opportunities and constraints of the presence and disposition of minerals and the mountainous setting.
- Its remains illustrate the way in which people were brought together in new forms of social relationships to provide for the needs of industry and grasp its opportunities, constituting “exceptional evidence of the evolution of human society and settlement over time”.
- It is “an **organically evolved landscape** which results from an initial social and economic imperative”, namely the increasing pace of industrialization and its changing nature during the 18th and 19th centuries.
- It comprises elements that are both “a **relict or fossil landscape**” and a “**continuing landscape**” that shows the marks of changes and developments during the era of industrialization and afterwards.

Subject – HERITAGE RISK ASSESSMENT AND MITIGATION

Objective – Students are made aware of the nuances of Disaster Management Aspects.

DISASTER MANAGEMENT PLAN FOR KHANDOBA TEMPLE COMPLEX, NIMGAON DAODI, PUNE

CHAPTER 3: RISK ASSESSMENT 3A. PHYSICAL VULNERABILITY

Due to climatic effects and human interventions many structural defects have occurred which needs to be catered. Several structural damages cracks, broken elements due to human interventions and other defects are seen in the temple. Some of the elements in the temple complex are in dilapidated state. Oil paint can cause damage to the structure which causes seepage of water within the material



1) Broken stone steps 2) Broken Steps 3) Water Seepage in the wall (Later additions) 4) Water seepage (Water tank is a later addition)

These are physical vulnerability that are majority seen in the temple complex which can be threat to the temple complex as well as a threat during some accidents.

There are other aspects like the water tank constructed in the premisses of the temple which is leaked and water flows continuously from it causing water seepage.

Also, due to the later additions of the walls to the cloisters, there is heavy water seepage during rainy season due to the absorption of water in the bricks damaging the fabric of the cloisters.

Source: Author

B. ENVIROMENTAL VULNERABILITY

As Pune region comes in the Seismic zone 4, there are risk of seismic disasters, but the risk of earthquake in this region is low to the terrain and topography on which the temple is located.

Another aspects to look upon is the vegetation growth, moss growth in the temple complex due to water seepage making a threat.

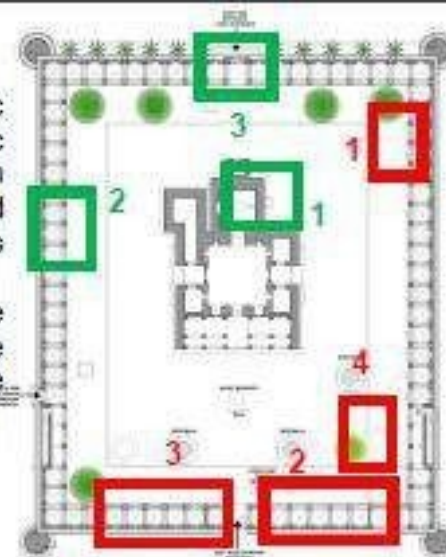


Fig 18: Vulnerability plan for Khandoba Temple complex



Due to climatic effect seen on the temple complex, 1) Vegetation growth, 2) Moss growth can be a threat to the structure in terms of risks that can arise in the future.

Other risk are the water seepage caused due to the new construction due to human interference.

Another major risk can happen is the collapsing of the Nagarkhana above the Kade Pathar Darwaja. The upper portion was broken due to lightning strike that happened in the past.

Though the area is not much prior to earthquakes, but a moderate earthquake can create disaster by collapsing the upper part of the Darwaja.

Subject – HERITAGE RISK ASSESSMENT AND MITIGATION

DISASTER MANAGEMENT PLAN FOR KHANDOBA TEMPLE COMPLEX, NIMGAON DAODI, PUNE

C. SOCIO ECONOMIC VULNERABILITY

As Khandoba is the family deity of many, there are certain socio cultural activities conducted in the temple complex like Tali Bhame, Gondhal etc. These activities are carried out either in the temple or in the cloisters in the fortification wall. Therefore, there are risks due to these rituals performing in these spots.

The economic issues are seen at the surrounding of the temple, commodities get manufacture like garlands to offer the deity which creates congestions in the spaces outside the complex. Due to human interventions, vendors and other shops are added in the premises. These can risk to stampede during fire or other disasters.



The rituals taking place in the temple can have risk based on the commodities used for the rituals. These commodities can cause disasters if not handled carefully. These human interventions need to be with at most care so as they should be avoided from happening any disaster.

E. ACCESSIBILITY VULNERABILITY

Accessibility to the temple is from three sides which conjugated at the points that can create crowds during festivals. These need to cater by a suitable management plan that can reduce the strain on the walkway to the temple.



Source: Classmate S.Y.M.Arch, Author

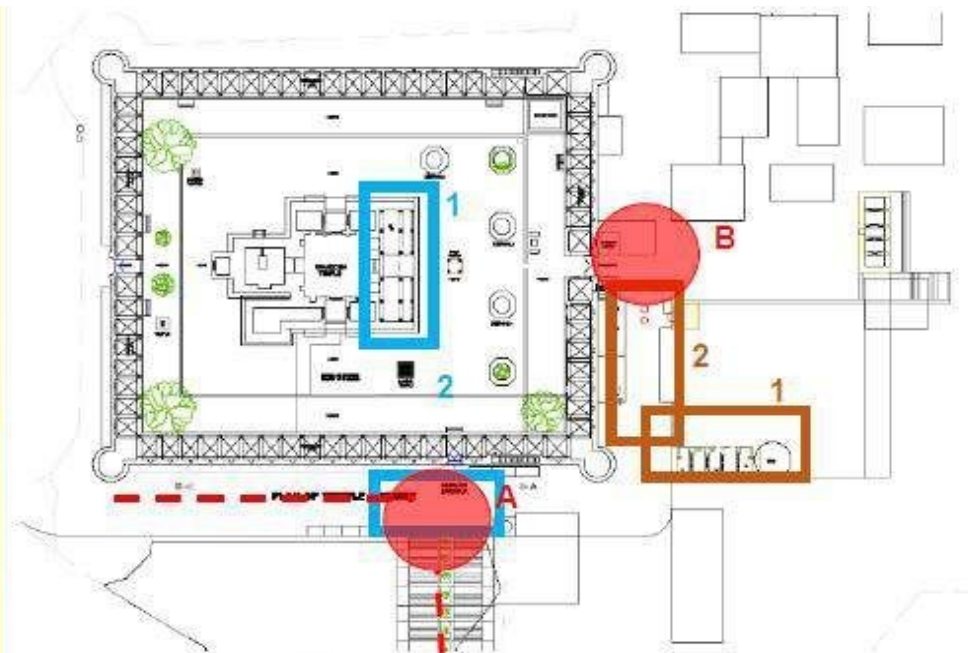


Fig 19: Vulnerability plan for Khandoba Temple complex

D. MANAGEMENT VULNERABILITY

Khandoba temple complex experiences management risk as some of the old buildings are converted or used as shops by the local people selling commodities around the complex.



All these are human interventions causing change in the use of the buildings or later additions done. Due to these interventions, there are issues with the original fabric of the structure. The use of these spaces are not managed properly by the owners. There are no such structural issues seen other than the change in the use of the space.

Subject –HERITAGE RISK ASSESSMENT AND MITIGATION

DISASTER MANAGEMENT PLAN FOR KHANDOBA TEMPLE COMPLEX, NIMGAON DAODI, PUNE

3B. DAMAGES HAPPENED EARLIER

NATURAL DISASTER: LIGHTNING STRIKE

Nimgaon Khandoba Temple till date have experienced some minor flash floods, minor earth quakes. But the major disaster happened was when the lightning struck on the temple causing damage to the stone Nagarkhana on top of the KadePathar Darwaja.



Fig18: Damage caused to the Nagarkhana and the ruins

NATURAL DISATERS

Sr.no	Area	Risk	Risk History	Cause	Remedy
1.	Kadepathar Darwaja	Lightning Strike	Upper part of the Door is collapsed	The stones are broken and damaged	Needs to give structural support

HUMAN INTERVENTIONS

2.	Deep Maal	Human interference	Some of the elements of Deep maal are broken	The parts are broken and are in dilapidated state	Needs to be conserved and fix
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Source: Author

HUMAN INTERVENTIONS

Apart from natural disasters, there are certain man made interventions which can create risk or disasters. Also, due to human interventions, some elements like These intervention are seen in the outside of the campus where there is haphazard development leading to congestions, negligence towards the maintenances of the ancillary temple and other heritage structures in the vicinity.

Construction of new houses, shops can lead to stampede like situations in the near future. The use flammable material like nylon for covering pathways can lead to fire like situations.



Fig 20: Human intervention in the temple premises

Subject –RESEARCH- II

WRITING A RESEACH PAPER –ALL STAGES FROM INDENTIFYING RESEARCH QUESTION TO TECHNICAL WRITTING

Shodh Sankalp
Sinhgad College of Architecture, Pune



“UNDERSTANDING SOCIO-CULTURAL AND ECOLOGICAL RELEVANCE OF SACRED GROOVE IN WESTERN GHATS MAHARASHTRA- PANSHET VALLEY.”

Ar. Shivraj Dangat, Ar. Sonal Karanjikar
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scoa@sinhgad.edu
dangatshivraj.1998@gmail.com, sonalkaranjikar@sinhgad.edu

ABSTRACT

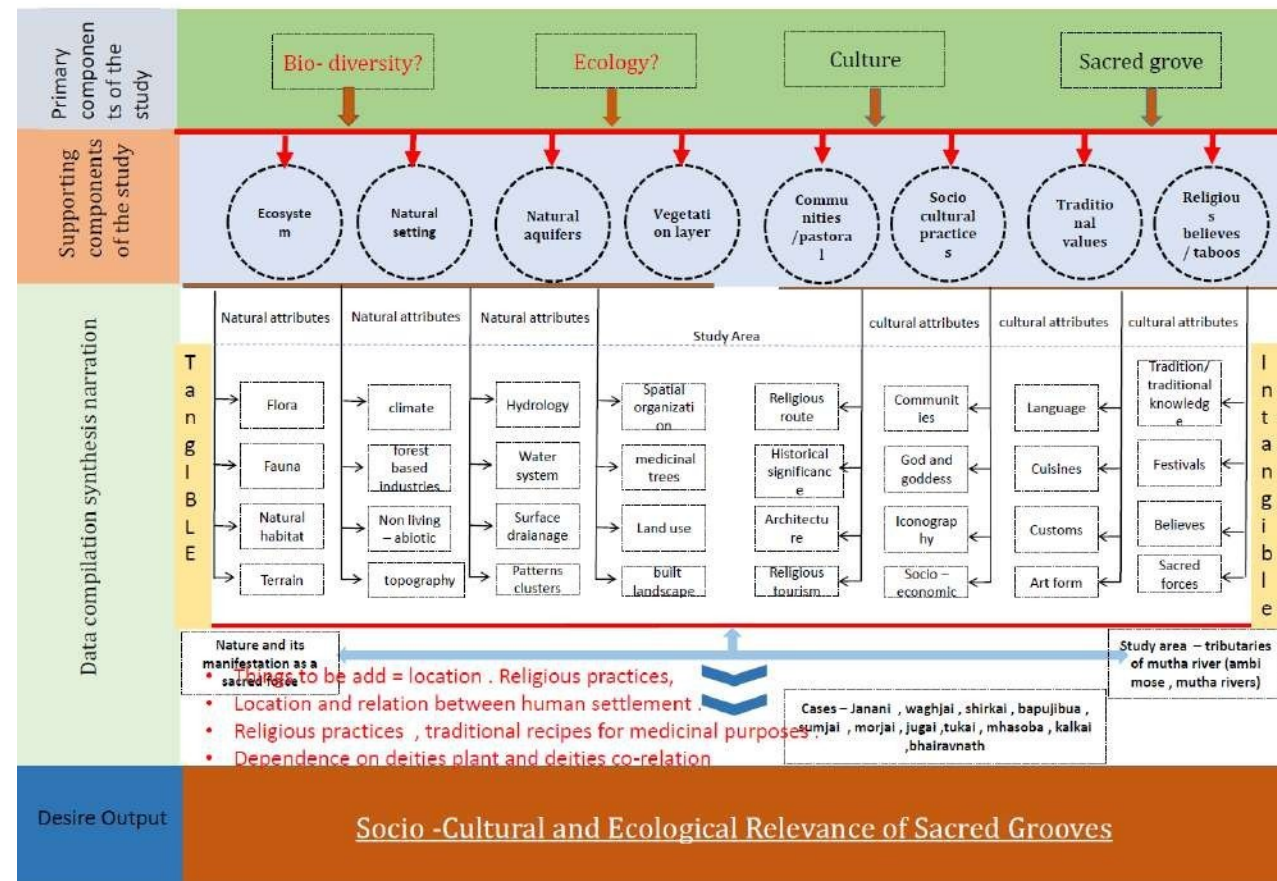
The present study deals with the ecological and socio-cultural relevance of sacred groves in the Western Ghats of Maharashtra, India. Geographically, the research area is limited to two river valleys in the Sahyadri Ranges to the west of Pune. This area is full of biodiversity and is a part of Western Ghat. They are located on the historical route connecting Konkan and Pune via *Thipthipya Ghat* Community-protected areas are known as SGs. The harvest of sources is restricted, even though they provide numerous direct benefits to the community. People could benefit from the healing properties of SGs as ethno medicines, as well as the use of lifeless and fallen timber, seed series for nearby forestation programmers, and restricted irrigation from a nearby water supply. Locals prepared and registered as a village forest safety and control committee to eventually perform the groves' healing work. In the valley of this river, there are also some *Dhangar* deities. Temples to these deities can be found at the intersections of the pastoral route. *Bapujiburwa*, *Viroba*, and *Masoba* are the main deities in this temple. The *Dhangars'* traditional dance is Gaja Nach, which means elephant dance. An SG of *Panshet* which addresses relic vegetation of the space demonstrates that in case appropriate assurance is guaranteed a decent quality semi-evergreen forest can develop well.

KEYWORDS: Sahyadri, sacred grove, culture. Biodiversity

1 INTRODUCTION

1.1 Concept of the sacred grove:

The grooves were god's first temples where man learned to hew the shaft and lay the architrave. In the darkling wood amidst the cool silence, he knelt. (Bryant, 1848) (Gadgil M. a., Sacred groves in the Western Ghats in India, Economic Botany, 1976) Defined the SG's as 'sizable patches of forests where all forms of vegetation including shrubs and climbers are under the protection of the reigning deity, and the removal, even of deadwood is taboo'. They further state that this type of preservation of the entire vegetation in association with a deity is quite a distinct phenomenon from the preservation of isolated specimens of sacred tree species such as Peepal - *Ficus religiosa* and Umber - *Ficus glomerata* which are often preserved and worshipped even without any association with a deity. Religious belief and indigenous rituals have affected care and respect for nature in India, as well as other parts of Asia and Africa, since time immemorial. Every part of religious and cultural traditions is intertwined with the forest, which aids in environmental protection. These types of forests are associated with the concept of "holy groves." (khan,



Subject –RESEARCH- II

WRITING A RESEACH PAPER –ALL STAGES FROM INDENTIFYING RESEARCH QUESTION TO TECHNICAL WRITTING

Shodh Sankalp
Sinhgad College of Architecture, Pune



Purandare Clan of Saswad as Architectural Patrons

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ABSTRACT

The Clan of Purandare was important in the Seventeenth and Eighteenth Century who migrated to Maharashtra from Kamataka and were appointed as the administrator of the region of Pune and Saswad. The jaghir of Saswad was restored to Trimbak Bhaskar who ruled until it was taken over by Ambajipant Purandare and in this period the Purandare Family rose to prominence. Having a close bond with Balaji Vishwanath Bhatt, resulted in Purandare getting more power which enabled them in patronizing the field of Architecture. The paper explores the nature of patronage provided by Purandare. The research is qualitative type, inductive and exploratory, and based on secondary literary sources with primary fieldwork with identified and studied built typologies. The research concludes with the planning principles of the historic town of Saswad and the patronage provided for the temple activity including residential typologies.

KEYWORDS: Purandare, History, Architecture, Patronage

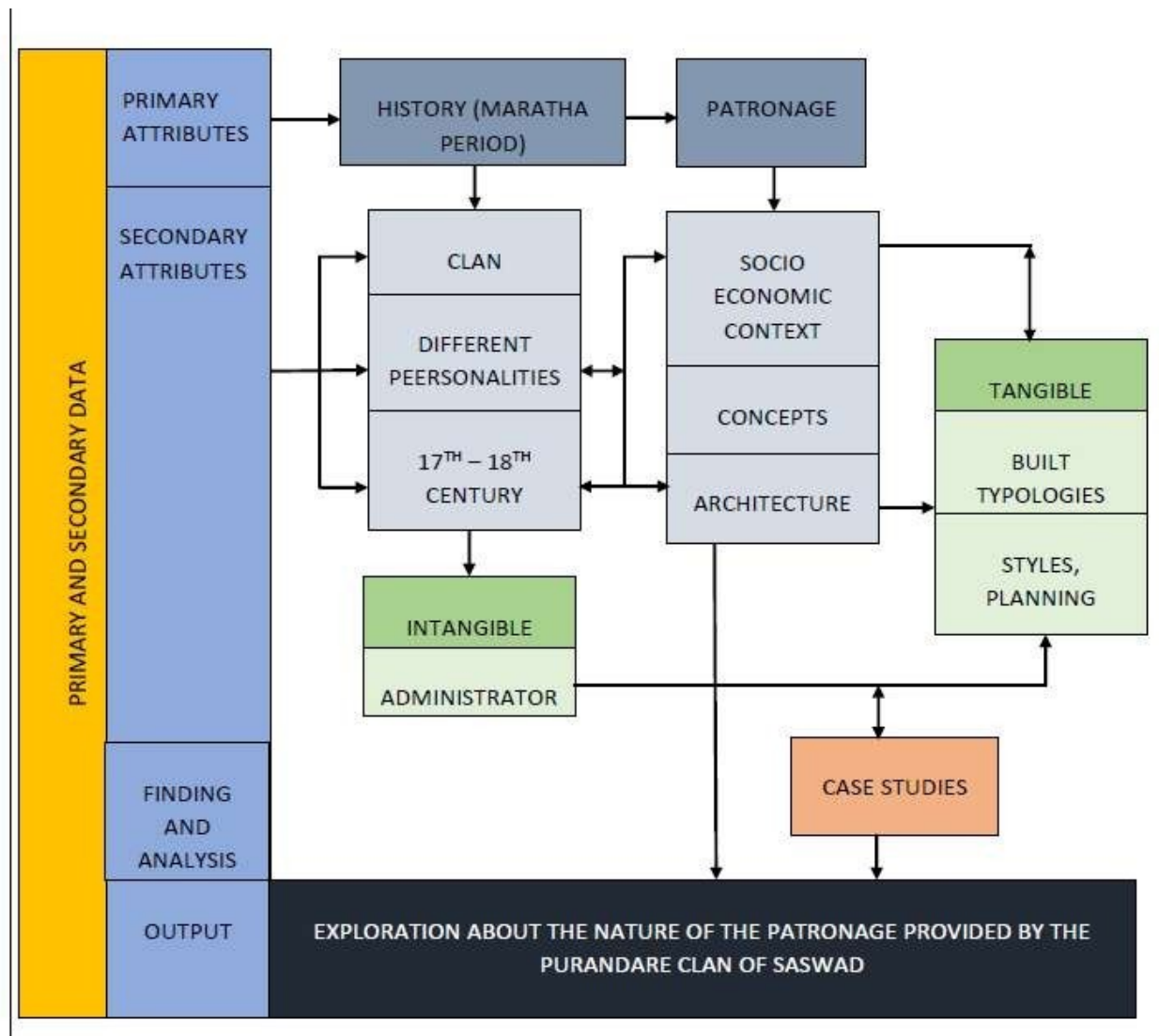
1 INTRODUCTION

In the 17th Century, during the rule of Shivaji Maharaj, few trustworthy persons were given the post of *Sardar*¹ and villages were allotted as their jaghirs. One of the important families in the 18th Century who became the administrator of the Peshwa in the 18th Century was the Purandare and played an important role in patronizing in the field of architecture and developing Saswad as their administrative headquarter where several temples and Wada's were constructed under their monetarization.


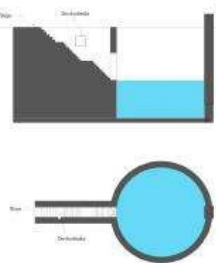
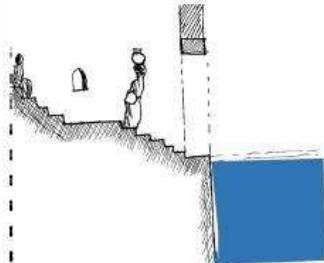

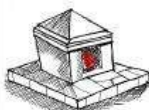

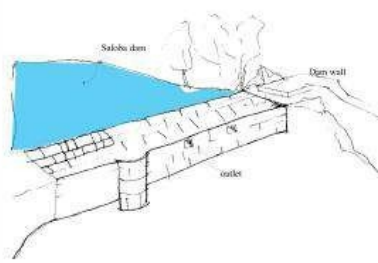

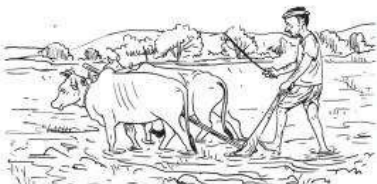




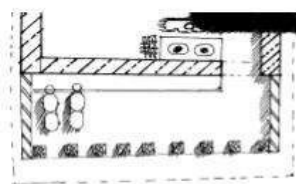
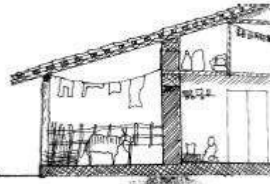

2 HISTORY OF PURANDARE'S CLAN

The history of Purandare can be traced back to the 13th Century where Mudgalbhatt Purandare is said to be the forefather of the clan who migrated to Maharashtra from Kamataka as per (Purandare, 2021) In the 17th Century, the main person of this clan was Trimbak Bhaskar (Kasture, 2016) to whom the *Sabnisi*² of Purandare fort was given by Chhatrapati Shivaji Maharaj. After that, in the Maratha Land Purandare served

¹ Sardar- Elite class post who was administrator of a particular region
² Sabnisi- Business Officer



Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley

TITLE –TRADITIONAL KNOWLEDGE SYSTEM					
Traditional knowledge system		Description	Location / plan	Sketch	Photograph
Traditional water harvesting practices	Step well	<p>Traditional Water harvesting practices There are many age-old-practices of harvesting water in the country, basically to collect rainwater, restore surface flow of water, ground water recharging, etc. These are based on simple technology and defined management principles. A step well is exactly what it sounds like- steps down to a well.</p> 			
	Check dams	<p>Shivganga is seasonal river , for irrigation purpose there is no other source than the river itself ,thus various check dams and irrigation system were developed in this region , first dam were constructed by the jijabai bhonsale at shivapur.</p> 	<p>Map of Shivganga</p>  <p>Design of traditional plough in different part of India</p>		
Traditional agricultural practices		<p>Traditional agricultural practices In many areas of the country, traditional agricultural practices are still considered important. These practices are followed in selection of crop varieties, land selection, land preparation, soil fertility management, pest and disease management, irrigation, harvesting, post-harvest management, seed preservation, etc. Moreover there are different tools and implements used for the purposes, some of which are mentioned below: There are different shapes and sizes of ploughs and hoes used for tilling of soil, which varies from region to region based on soil quality, terrain condition and the crop used for cultivation. Not only that, with variations in the crop varieties, the tools used for harvesting also changes.</p> 		 <p>Design of traditional plough in different part of India</p>	
Traditional management of animal husbandry		<p>Traditional knowledge regarding animal husbandry can be considered as old as domestication of various livestock species. But these practices are in vogue throughout rural India and those are documented little and hence, there are possibilities of eroding out of these knowledge systems. For example, traditional practice of the feeding includes crop residues like straw, stalks, stovers, tops and crop thrush like wheat, paddy straw, etc as well as crop by-products that includes Bran, Husk, straw of Wheat, Rice, Bajra and Maize. Women have a very important role in the traditional method of integrating agriculture with animal husbandry.</p> 			


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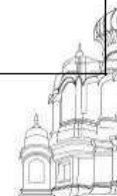
CONSERVATION PRAPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY. GUIDED BY: DR. VAISHALI LATKAR
KHEDERARE MAYAL - PUNE - MAHARASHTRA
AR. SONAL KARANJIKAR
AR. SOHONI/PAUL

STES SINGHAD COLLEGE OF ARCHITECTURE
S.Y.M ARCH - ARCHITECTURAL CONSERVATION
2021-2022

SHIVRAJA DANGAT
SY MARCH I
SEM - IV

NORTH





SHEET NO. 13

2AC202105

CONSERVATION PROPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY
KHEDEBARE MAVAL - PUNE , MAHARASHTRA

GUIDED BY: DR. VAISHALI LATKAR
AR. SONAL KARANJIKAR
AR. POORVA PATIL

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2021-2022

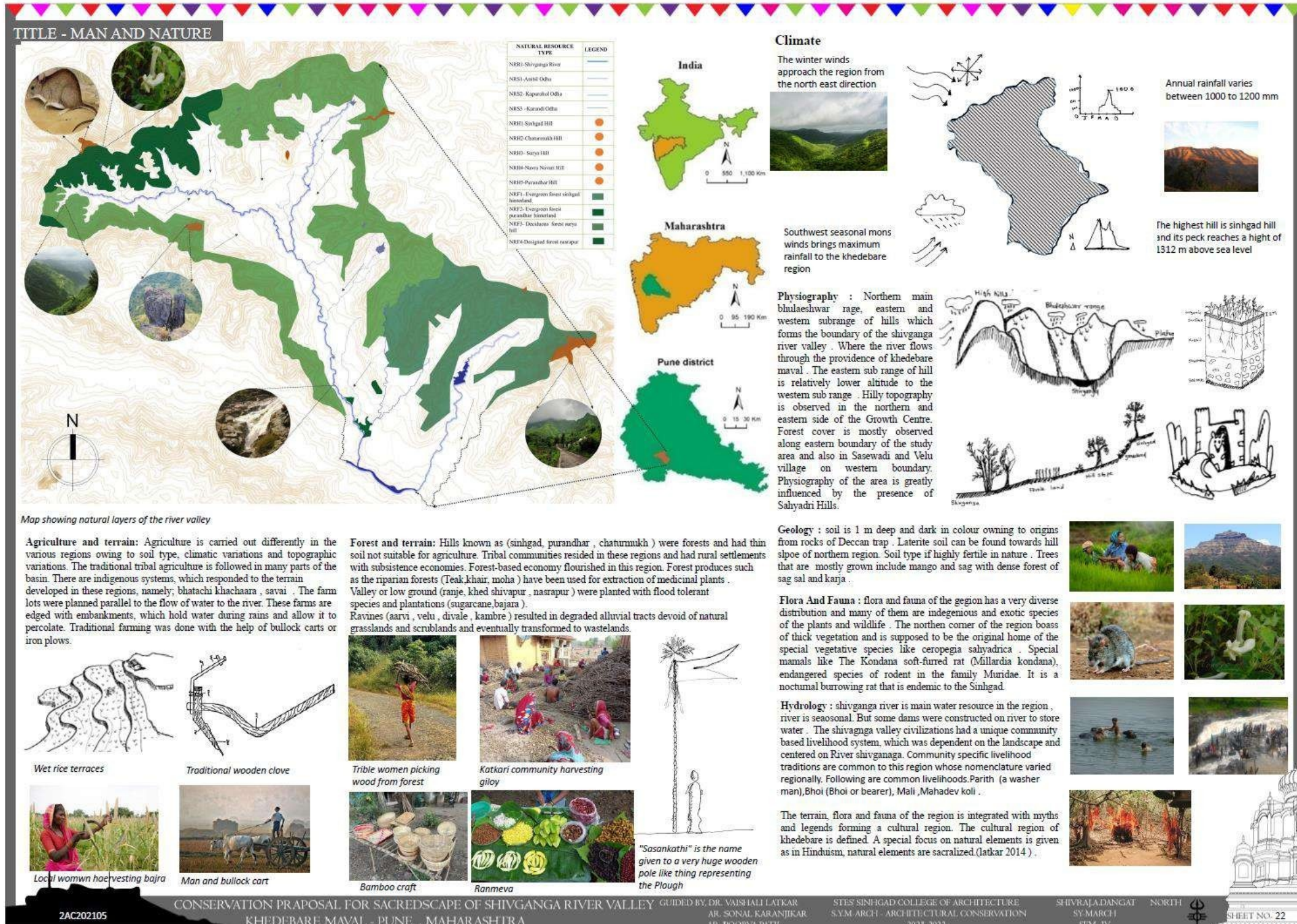
SHIVRAJADANGAT
SY MARCH
SEM-IV

NORTH



SHEET NO. 13

Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley



Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley

Map showing Shivganga river and small stream tributaries

Self Similarity in Landscapes in India- Forms and Meanings. Sinhgad is considered form of kailasha parvata. Mythical places associated with lord shiva can be found into the region.

No of tirthas	Name of tirtha	Type	Form	
			Built	Unbuilt
1	Shivganga mouth	Natural water cistern	N	
1	Kondhanpur gomukh	Sacred water tank		Y
2	Ranje gomukh	Sacred water tank		Y
3	Shivapur darga gomukh	Sacred water tank		Y
4	Baneshwar gomukh	Sacred water tank		Y
5	Amruteshwar gomukh	Sacred water tank		Y
6	Triveni sangam	Confluence of three river	N	

Sr no	Confluence	Map	Photograph
1	Shivganga river and kapur odha		
2	Shivganga river and ambul odha		
4	Shivganga river and amruteshwar and gujavani		

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CONSERVATION PRAPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY

KHEDEBARE MAVAL - PUNE , MAHARASHTRA

GUIDED BY, DR. VAISHALI LATKAR

AR, SONAL KARANJIKAR

AR, POORVA PATIL

STES' SINHGAD COLLEGE OF ARCHITECTURE

S.Y.M ARCH - ARCHITECTURAL CONSERVATION

2021, 2022

SHIVRAJADANGAT

SY MARCH I

SEM -IV

NORTH

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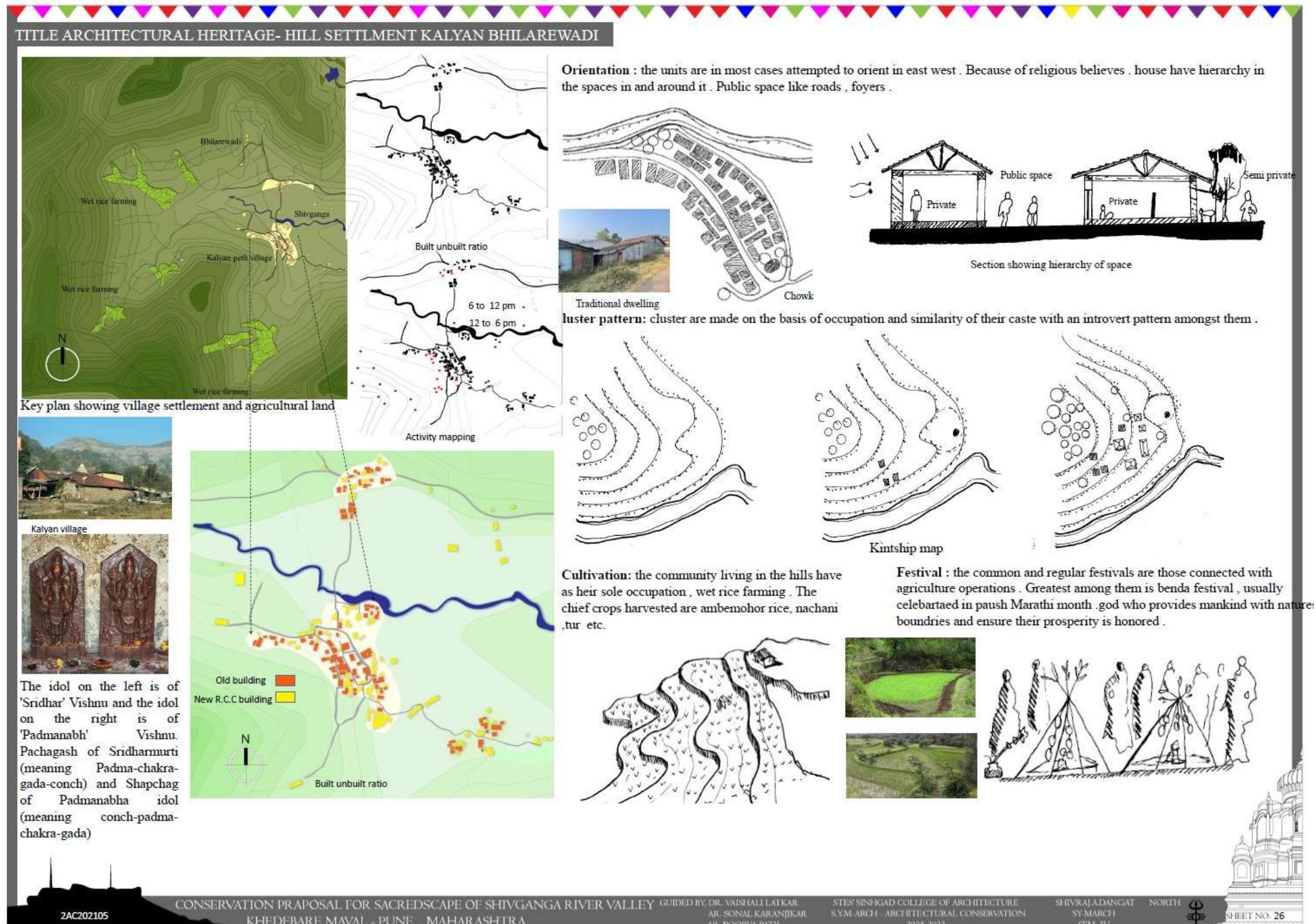
STUDENT WORK

2021-22

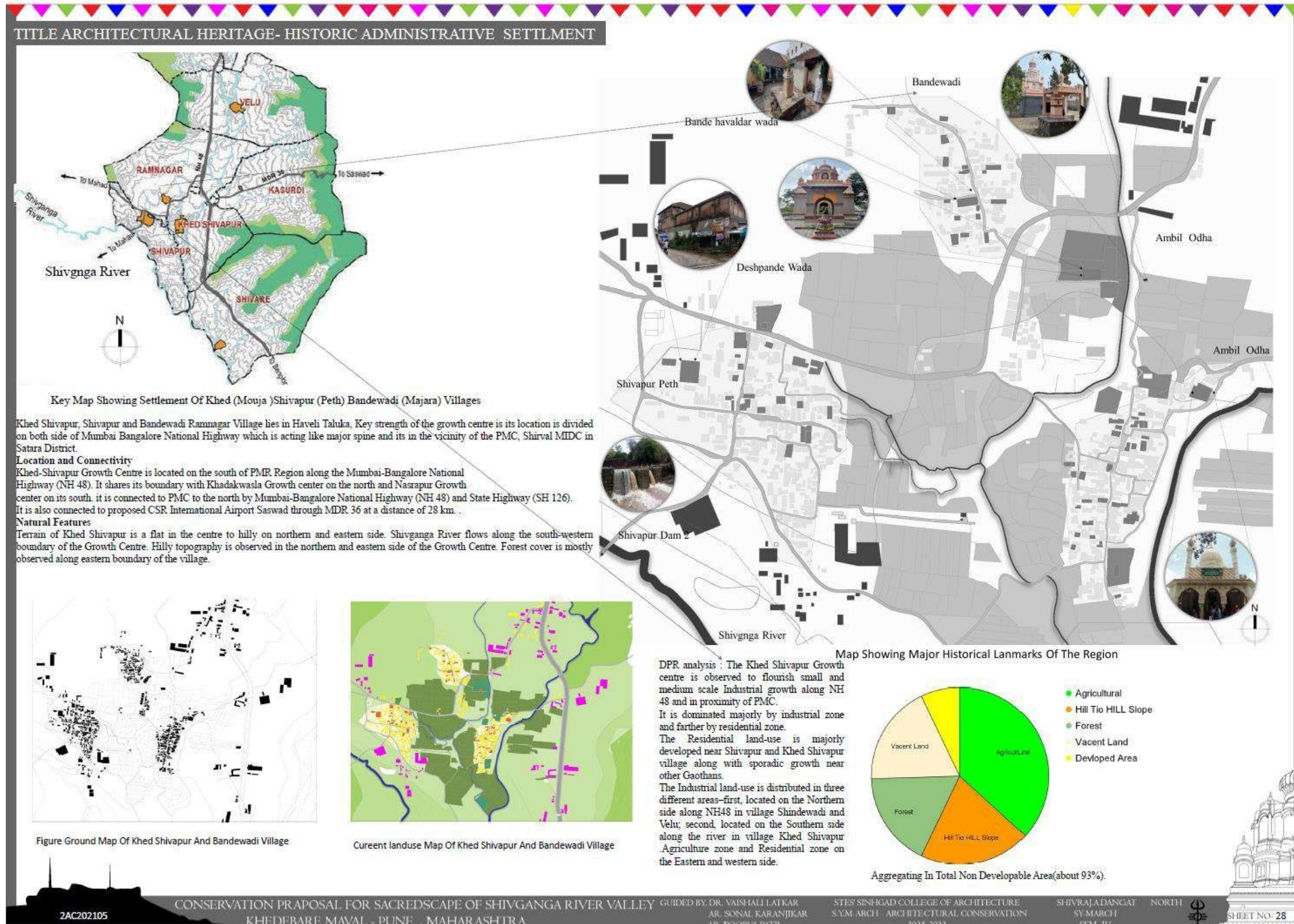
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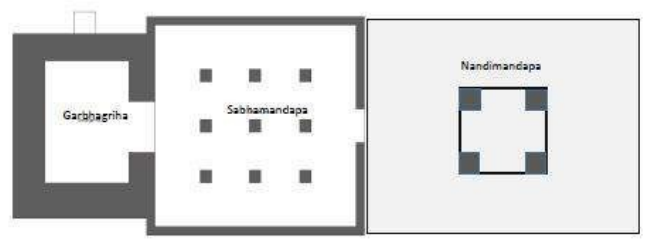
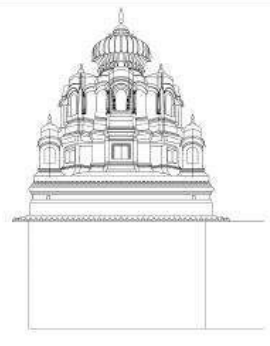


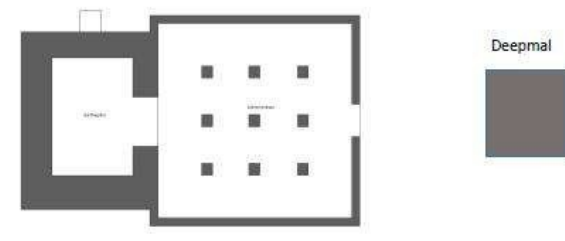
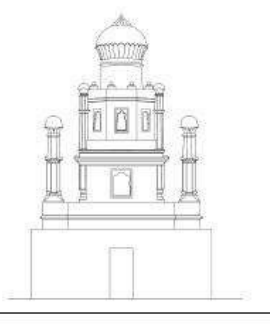


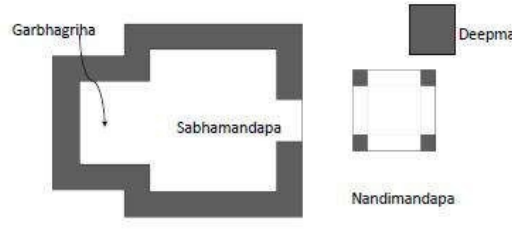
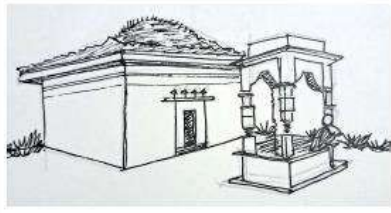


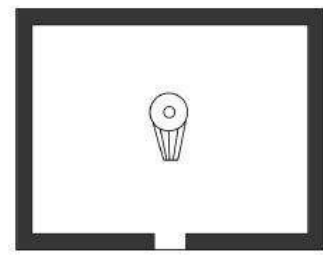
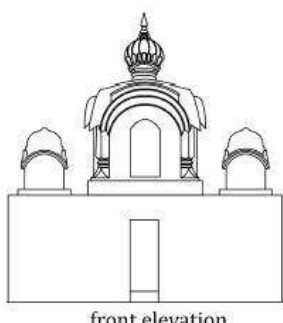
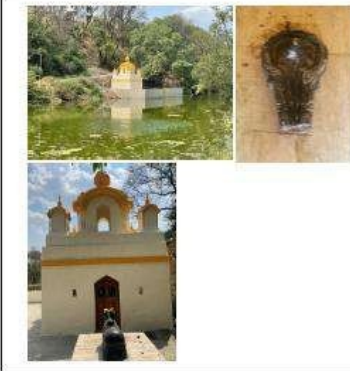
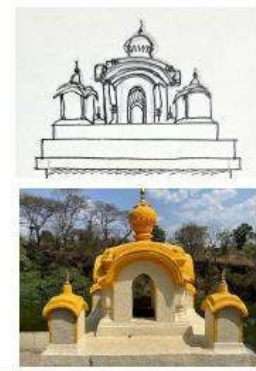
Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivganga River valley



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Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley

TITLE ARCHITECTURAL HERITAGE- RELIGIOUS ARCHITECTURE		Elevation	Photographs	Special features
1	 <p>Garbhagriha</p> <p>Sabhamandapa</p> <p>Nandimandapa</p>			
2	 <p>Garbhagriha</p> <p>Sabhamandapa</p> <p>Deepmal</p>			
3	 <p>Garbhagriha</p> <p>Sabhamandapa</p> <p>Nandimandapa</p> <p>Deepmal</p>			
4	 <p>plan of mahadev temple</p>	 <p>front elevation</p>		

2AC202105

CONSERVATION PROPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY

GUIDED BY: DR. VAISHALI LITKAR

AR, SONAL KARANJIKAR

AR, DODDRAJ DUTTA

STES SINGHAD COLLEGE OF ARCHITECTURE

SYM ARCH - ARCHITECTURAL CONSERVATION

2022-2023

SHIVRAJADANGAT

SYM MARCH

2023

NORTH

SH

SHEET NO: 35

2AC202105

CONSERVATION PROPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY
KHEDEBARE MAVAL, - PUNE, MAHARASHTRA

GUIDED BY: DR. VAISHALI LATKAR
AR. SONAL KARANJIKAR
AR. POORVA PATIL

STES SINHGAD COLLEGE OF ARCHITECTURE
SYM ARCH - ARCHITECTURAL CONSERVATION
2021-2022

SHIVRAJ ADANGAT
SYM ARCH
SEM - IV



SHEET NO. 35

Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley

TITLE ARCHITECTURAL HERITAGE- RESIDENTIAL TYPOLOGY -

Building style – Maratha period under chatrapati
Period –17th century

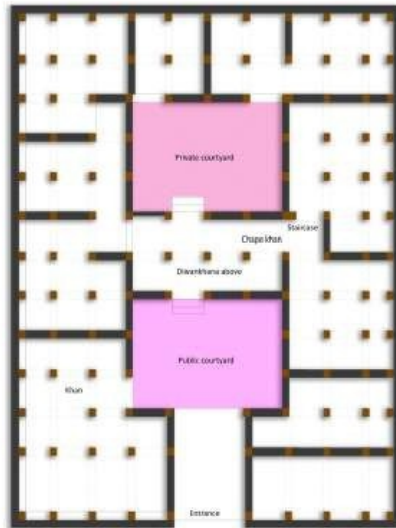
Building type –Residential Wada Dwelling

Building material and style :Building material and style: all the sides are quite plain and have no projections or balconies. The original crimson and yellow decoration on the outer walls has now faded and the ashy colored walls look drab.

Plan: the plan of the building evolved around the number of chowks (courtyard).

- Constructing building around open space and thus searing sufficient light and ventilation was a custom practice in India from ancient times.
- Around these chowks ran open pillared aisle and rooms and halls were therefore organized on get full advantage of the open court.
- Outer chowk pillared verandha around it housed the offices of the clerical staff of the owner. the shrine of the households deity was placed in the left hand corner of it. The office or the owner occupied the hall facing the main door.
- Inner chowk rooms are private.

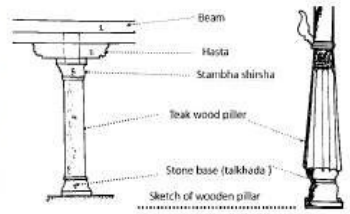
Building construction



Plan of Deshpande wada

Building material: stone, brick and lime mortar.

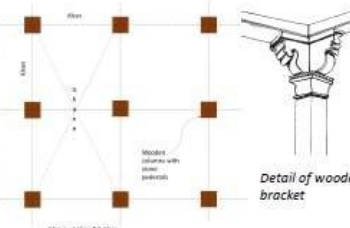
- Erected on 5 feet high stone plinth.
- Above the plinth, the rest of the structure was built of brick and mud, pointed with mortar or of brick and mortar.
- Roofs: flat rectangular tiles with a turned edge and semicircular (in section) tiles of terra cotta were used. They were laid on bamboo framework and had no fastening.
- Pillars: plain shafts were generally used but in important halls and balconies the Cyprus-shaped pillars were used. Pillar were decorated with delicate, foliations, lotus petals and string design.
- Brackets: light and heavy, the carrying and design were limited to only that part of the bracket which faced the hall or the chowk.
- Windows: windows were decorated with wooden foliated arches.
- Ceiling: ceiling made of wood were richly decorated. Ivory was used lighten the artistic effect of the ceiling.
- Stucco: partitions had been adorned from the outdoor with a gap in relief, this area of interest had a lotus petal base, Cyprus pillars, and curvilinear roofs surmounted with Kalash. Bands of lotus bud designed in stucco usually run alongside the partitions typically above the cornice.



Roofing system

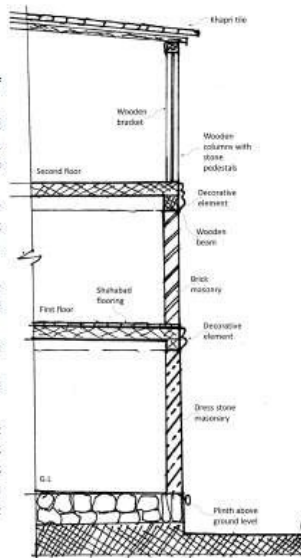


Roofing system of Mangalore tile



Detail of wooden bracket

Structural grid system used in construction



View of tushirindavan court



First courtyard



View of Shivapur wada

Building style –British period
Period –19th century

Building type – bungalows and rest house

Building material and style :This represents colonial architecture. These structures seem to be perfect for 'climate control'. The veranda, high ceiling, portico and the windows with their venetian blinds were able to protect the house from the harsh sun rays.

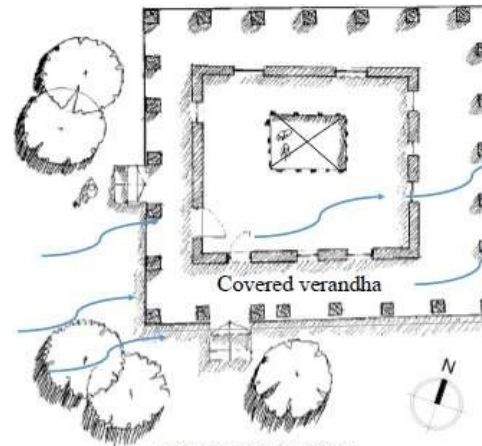
Pitched roofs and highly carpentered detail. material used of burnt brick or black basalt stone, wood paneling, light color paints, generous expanses of lawn.



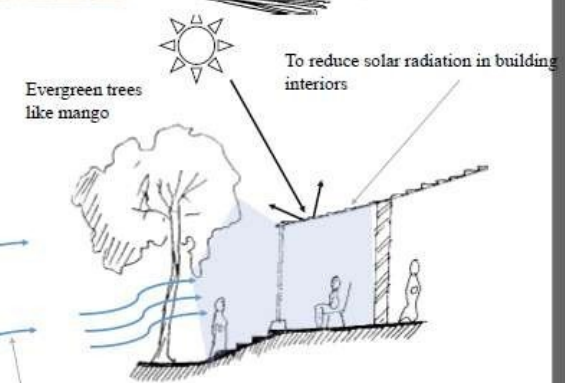
Column framed verandha



Tilak bungalow

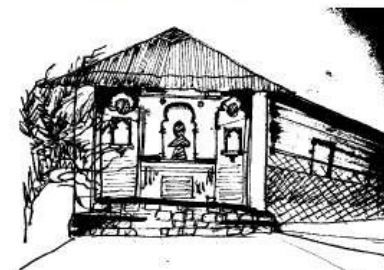


Schematic plan of tilak bungalow

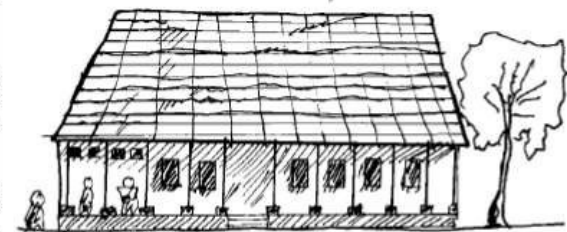


Cross ventilation – through ventilation, guaranteeing frequent and rapid air change

Steeply pitched roof, manglore tile were used as roofing material



View of tilak bungalow



Elevation above ground level, with an all encompassing column framed verandha

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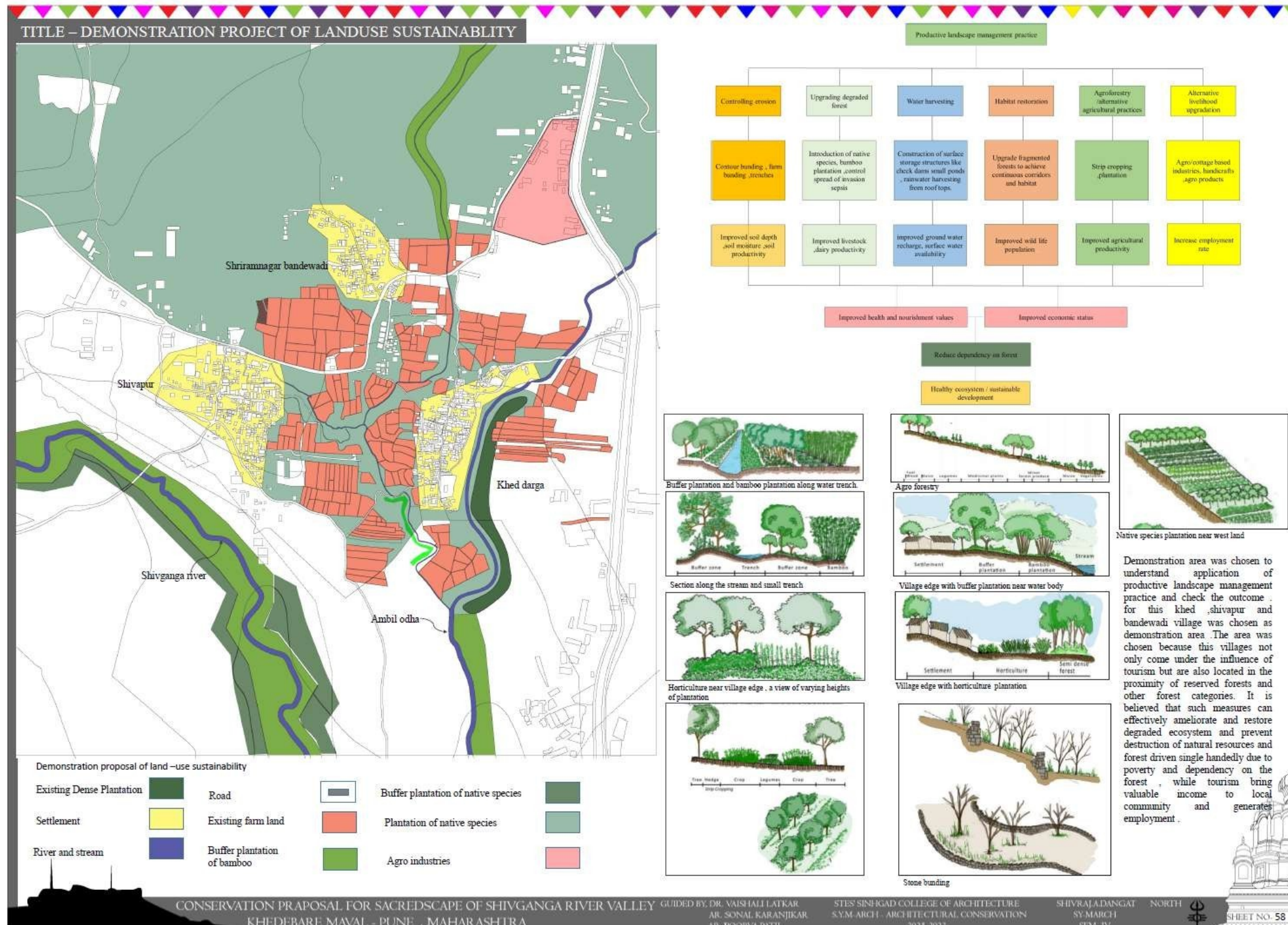
CONSERVATION PROPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY GUIDED BY: DR. VAISHALI LATKAR
AR. SONAL KARANJIKAR
AR. POORVA PATIL

STES' SINHGAD COLLEGE OF ARCHITECTURE
SYM-ARCH - ARCHITECTURAL CONSERVATION
2021-2022

SHIVRAJADANGAT
SYM-ARCH
SEM-IV

NORTH
SHEET NO. 38

Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley



Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivganga River valley



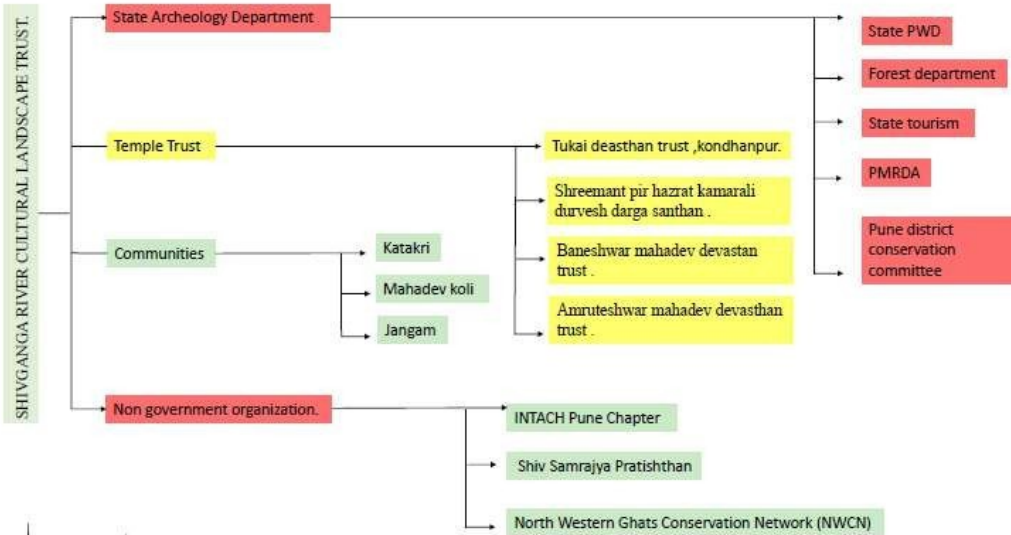
Topic –Safeguarding cultural resources of a cultural region by cultural landscape approach- Sacredscape of Shivaganga River valley

TITLE – SHIVGANGA CULTURAL LANDSCAPE HERITAGE TRUST .

The many stakeholders who have an intrest in the protection , conservation , and management of shivganga river valley cultural landscape zone are presently functioning independently of each other this state of affairs results in fragmented public landscape lacking a cohesive system of pilgrim facilities and patchy maintainace. For landscape conservation management , shivganga heritage trust , composed of representatives from all stakeholders ,including the resident community ,is proposed.. This unit will be the over-arching body responsible for regulating and developing the protected zone.

HERITAGE MANAGEMENT FRAMEWORK (LEGAL)			
INDIAN CONSTITUTIONAL / LEGISLATIVE AND REGULATORY PROVISION			INSTITUTIONAL FRAMEWORKS / ENFORCEMENT AUTHORITIES MONITORING BODIES
ENVIRONMENT	CULTURE	ADMINISTRATION	
NATIONAL			
<ul style="list-style-type: none"> The indian forest act 1927 the forest (conservation)act 1980. The wild-life (protection)act 1972. The environment (protection)act 1986. Reserved forest Act. 	<ul style="list-style-type: none"> Ancient monuments and archeological sites and remains act 2010. Indian treasure trove act 1878(amended 1949) Antiquities and art treasures act 1972 	<ul style="list-style-type: none"> Draft national tribal policy – national tourism policy 2002 . Ecotourism policy and guidelines – Gol (under revision) 	<ul style="list-style-type: none"> Western ghats natural heritage management committee (WCNHMC),MoEF forest department
REGIONAL / STATE			
<ul style="list-style-type: none"> The Maharashtra Forest Produce (Regulation Of Trade) Act, 1969. 	<ul style="list-style-type: none"> The Maharashtra Ancient Monuments and Archaeological Sites and Remains Rules, 1962. 	<ul style="list-style-type: none"> Maharashtra gram panchayat act 1958 . 	<ul style="list-style-type: none"> C.C. F. WILD LIFE, PUNE S.D.F.O, BHOR.
LOCAL			
<ul style="list-style-type: none"> Local communities who protects sacred groove. 	<ul style="list-style-type: none"> Tukai devasthan trust , kondhanpur. Shreemant pir hazrat kamarali durvesh darga santhan . Baneshwar mahadev devasthan trust . Amruteshwar mahadev devasthan trust . 	<ul style="list-style-type: none"> P.W.D office 	<ul style="list-style-type: none"> Pune metropolitan regional development authority . PMRDA

HERITAGE MANAGEMENT FRAMEWORK (LEGAL)			
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CONSERVATION PROPOSAL FOR SACREDSCAPE OF SHIVGANGA RIVER VALLEY
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GUIDED BY, DR. VAISHALI LITKAR
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AR. POORVA PATHI

STES' SINHGAD COLLEGE OF ARCHITECTURE
SYM.ARCH - ARCHITECTURAL CONSERVATION
2021-2022

SHIVRAJ ADANGAT
SYM.ARCH I
SEM. IV

NORTH
SHEET NO. 60

Topic –Conservation Proposal for Historic Town of Saswad, Pune

इंटरनेट तित्ति: introduction

INTRODUCTION:

The town of Saswad lies on the left bank of the Karha 38 km southeast of Pune through the Diva Ghat Pass. Shortly after emerging from the pass a large square, fortress-like building, about a mile from the road on the right, attracts attention and became the administrative headquarter of the Purandare Family in the Peshwa era. Saswad was the original home of the Peshwas on the Deccan, the first Peshwa Balaji Vishwanath died here in 1720. The Purandare family also erected their palatial mansion known as Sarkar Wada here.

After the long, narrow Bazar, its atmosphere incense laden from the many shrines, the road crosses a bridge near the large, and picturesque temple of Sangameshwar, with its triple spires, built upon a delta formed by the Karha and a tributary. Grouped around are some shrines and samadhis.

The History of Saswad can be traced back to the 13th Century but mainly evolved as a Maratha Town in the late 17th Century and emerged as the headquarters of an administrative region of Purandare's in the early 18th Century as it was restored to the royal family by Tharle Shahu Maharaj of Satara when Balaji Vishwanath Bhatt was appointed as the Peshwa. With this, several responsibilities were allotted to the Purandare family which contributed to development in the field of architecture. The Purandare Family patron few typologies, out of which religious typologies can be prominently mapped from that period.

The way this Maratha town has developed as a market street, with other mixed-use typologies and use case visible. The town lies in the vicinity of Pune as a suburban town because of which urban pressures and the exponential increase of population have caused a strain on public infrastructure, resources, and on the urban fabric and prominently Maratha layer can be traced through the built fabric of the town.

❖ **AIM:** To formulate a holistic conservation proposal to safeguard the historic town of Saswad.

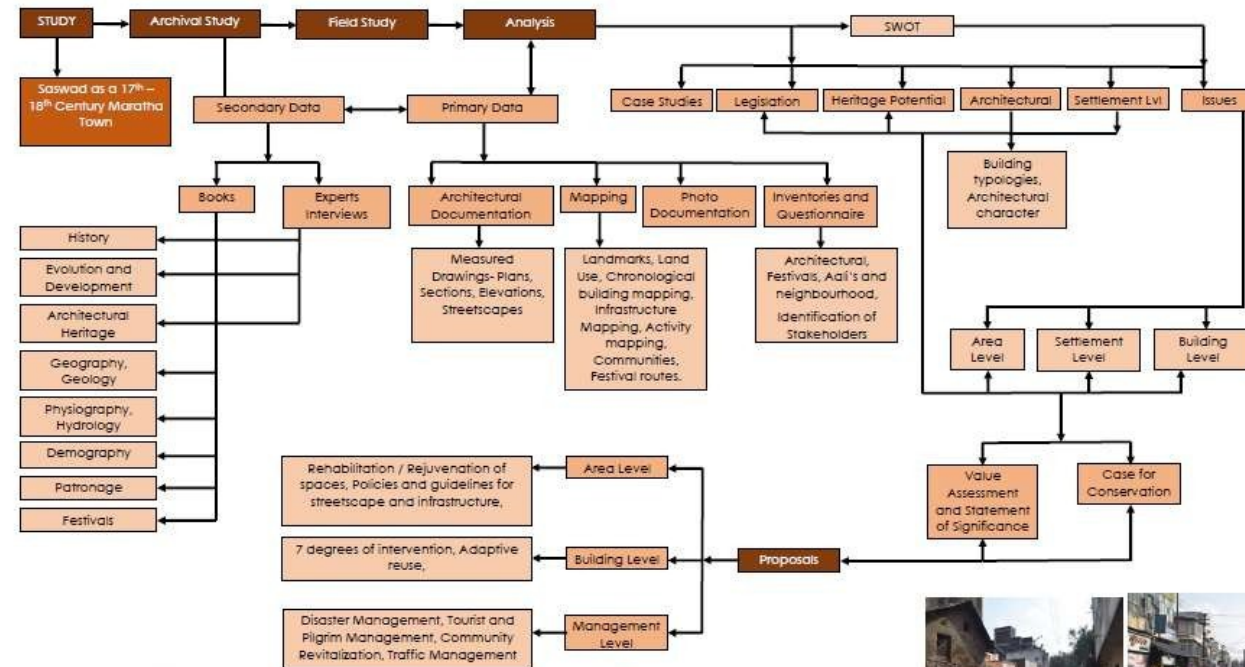
❖ **OBJECTIVES:**

- To understand the various context of Saswad as an 18th Century Maratha town as an administrative headquarter.
- To understand the evolution of the 18th Century Town, its settlement, and typological aspects of the historic town and establish the significance.
- To identify the heritage potential of the town based on settlement and character, mapping of heritage, and value assessment for the same.
- To understand the nuances of managing heritage through legal tools such as bye-laws and legislations, management skills with the involvement of stakeholders.
- To identify the issues of the historic town and give a holistic conservation proposal for the same.

❖ **SCOPE AND LIMITATIONS:**

- The study includes archival research, mapping, and analysis of heritage of the historic core of Saswad which includes temples, Wada's, Bazaars, Neighborhoods, and historic character, and analyze the heritage potential of the town. Through the study, problems are identified and an assessment is undertaken to provide a holistic conservation proposal with includes structural interventions, preparation of management plan, policies, and guidelines.
- Due to the permission issues and the present state of Sarkar Wada, a holistic study and measure drawings was not possible. All the drawings of the structure are generated from reference, plan Ground Floor Plan and videos on Internet.

METHODOLOGY: Primary Data will be gathered through field study carried on the site. The field study will include Mapping of various aspects on town level, Inventories and Questionnaire filling from which the architectural information, socio economic information about the communities, information of festivals can be gathered. The onsite field study will include Architectural documentation, photo documentation, mapping of City landmarks, land use, building typologies according to their period of construction, infrastructure and of festive routes. Secondary data involves books and research papers, experts' interviews for purpose of archival research which will reflect in understanding the evolution of an 18th Century town with analyzing the principles of it.



Google Map showing the delineated study area
Image Source: Google Earth, Edited by Author



conservation proposal for historic core of saswad, pune
by इंद्रवीर शांकर, इमरालद

ड्राफ्ट नंबर: 20202020

ड्राफ्ट नंबर



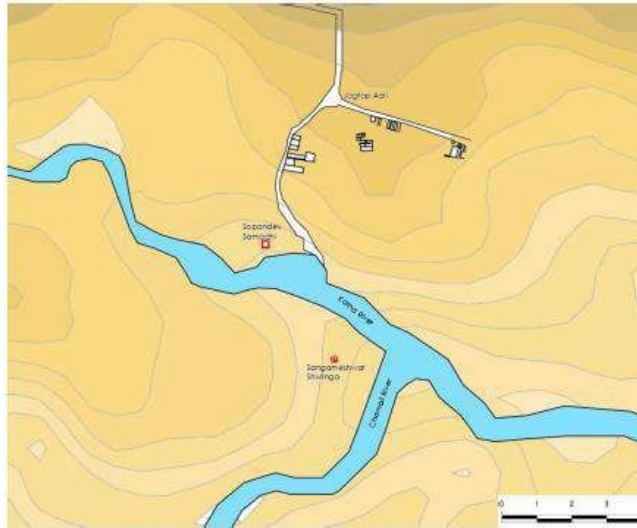
संस्थान: वॉलेन्स हाऊस
आ: इमरालद शांकर
आ: प्रमोद पाटी
आ: मरुता देवगुण्डे

संस्थान: कॉलेज ऑफ आर्किटेक्चर, पुणे
डिपार्टमेंट ऑफ आर्किटेक्चरल
कॉन्सर्वेशन

Topic – Conservation Proposal for Historic Town of Saswad, Pune

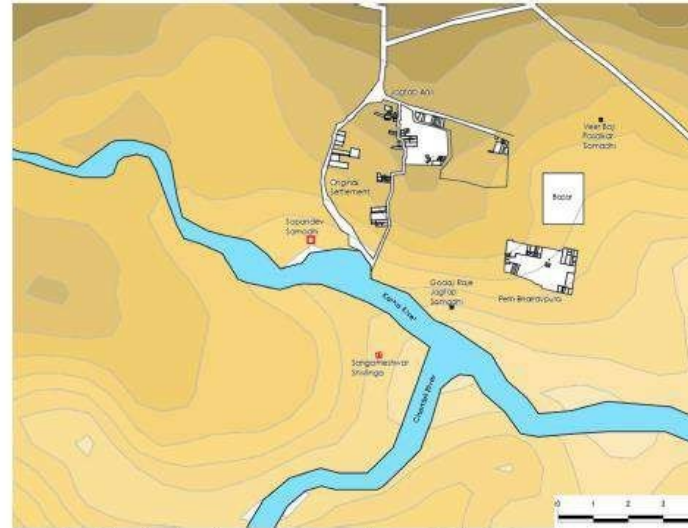
Sheet title: evolution of the historic core of saswad

05



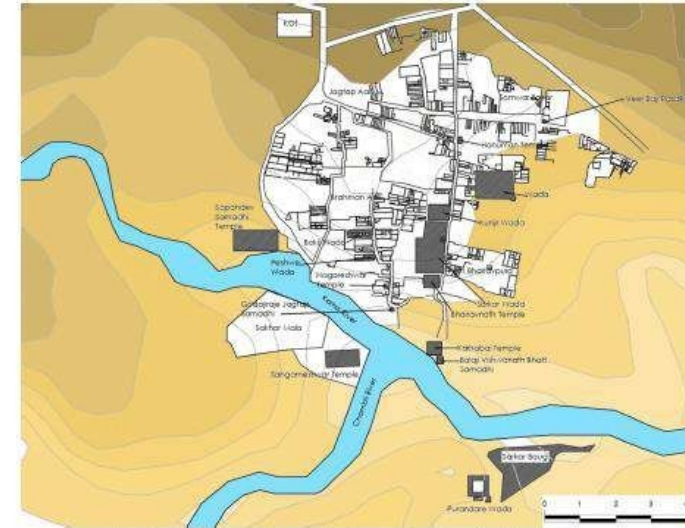
Map Showing development of Saswad around 13th Century

Saswad was physically founded by Lord Brahma by the establishment of Siddheshwar Shivalinga in the Mahabharata times. Saswad was profoundly known as Bramhapuri, until Sopande took his Samadhi on the bank of Karha in 1296 AD and the land was renamed as Sanvatsar as mentioned in Dyaneshwari, with adequate dwellings near the Samadhi.



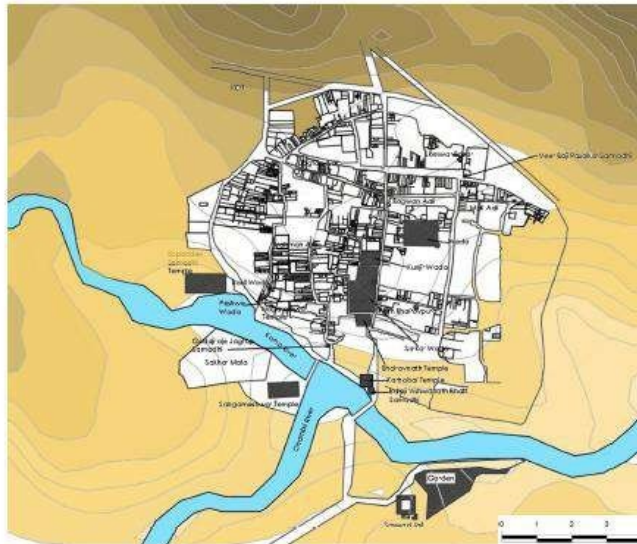
Map Showing development of Saswad around 17th Century

With time, the name Sanvatsar got changed to Sahawad and Satwad. Shivaji Maharaj when allotted the land of Bakhale Village for Sopande's Samadhi for erecting a temple, a narrow path along with a subordinate route was developed with the route taken to reach the Samadhi.



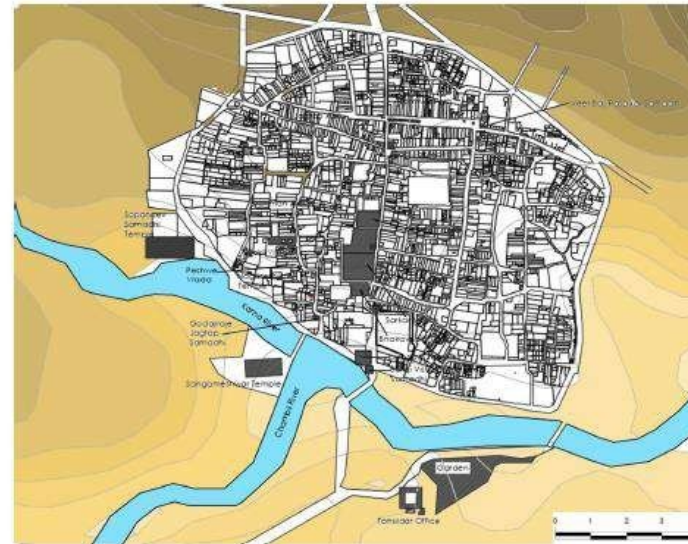
Map Showing development of Saswad around 18th Century

Saswad became the administrative headquarter of the Maratha Empire for Supa Pargana having a strategic location and several administrators had their residences along with Purandare's Sarkar Wada. Linear access got developed with the establishment of Brahman Aali with the evolution of the settlement in the land.



Map Showing development of Saswad around 19th Century

During the Colonial period, Saswad developed several new dwellings and other important buildings with the increase in the boundary of the village converting it into a town. The expanse of Saswad started to grow in the eastern part. The use of many heritage structures changed in the due of time and was prominently seen in this century.



Map Showing development of Saswad around 20th Century

The historic core of Saswad is seen evolved with several Aali's and their neighborhoods, involvement of new materials for residences. The post-independence period witnessed a remarkable development in the field of industries and factories prominently of paper, handloom industries, etc.



Map Showing development of Saswad around 21th Century

All Map Sources: Author

conservation proposal for historic core of saswad, pune
by: hindeshant shinde, hpu, pune

sheet number: 20202105

scale
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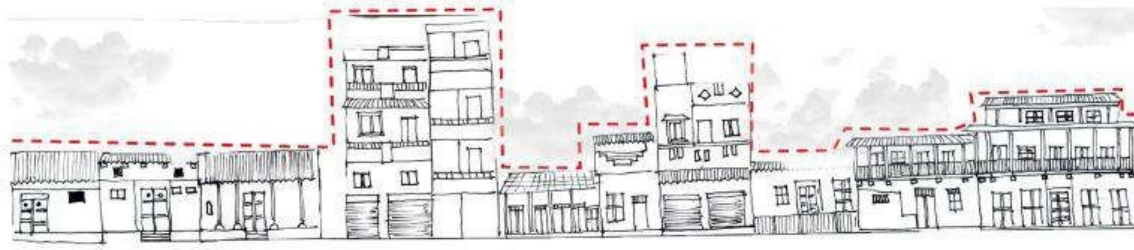
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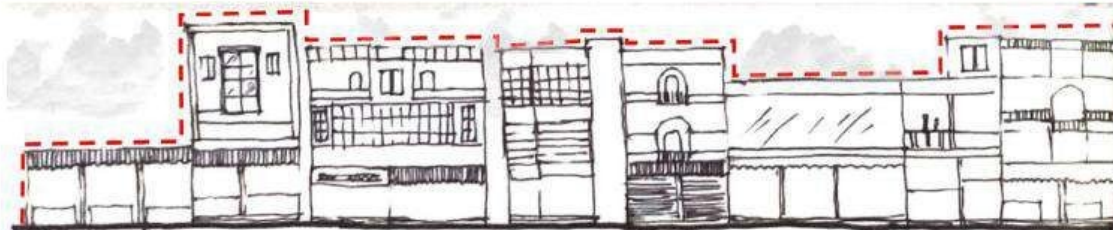
Topic –Conservation Proposal for Historic Town of Saswad, Pune

Sheet title: field work mapping streetscape and final area delineation

15



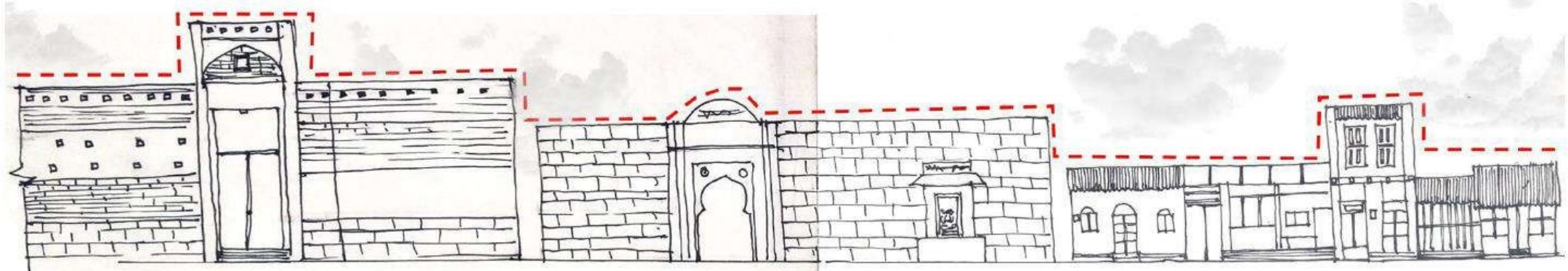
Streetscape of Peth Bhairavpura



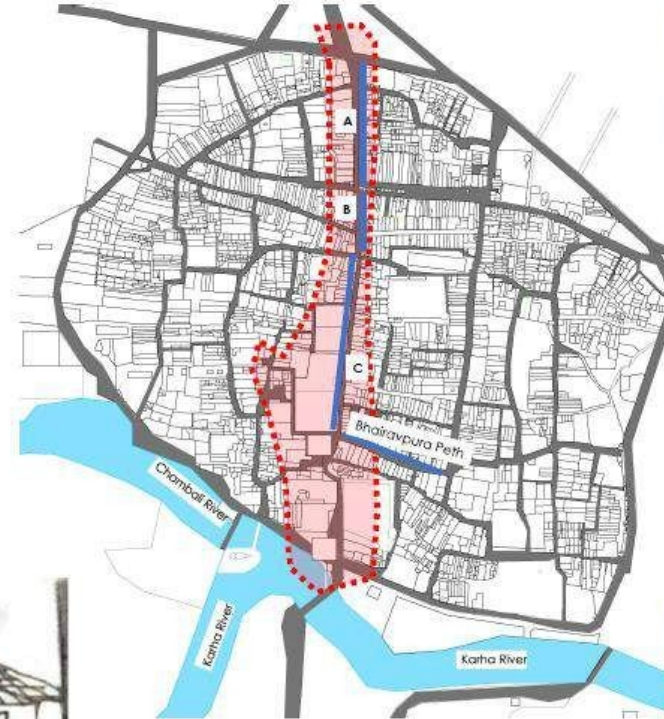
Streetscape of Mukhya Rasta A



Streetscape of Mukhya Rasta B



Streetscape of Mukhya Rasta C



Maps, Image, Sketches Sources: Author

conservation proposal for historic core of saswad, pune
by: shubham shinde, dpt.arch.

sheet number: 35020105

शुभम शिंदे



संशोधन: डॉ. राजेश्वरी शिंदे
आ. इ. आ. अभियांत्रिकी
आ. प्रशासक
आ. रूपा देवगुंडे

संशोधन: डॉ. राजेश्वरी शिंदे
आ. इ. आ. अभियांत्रिकी
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आ. रूपा देवगुंडे

17

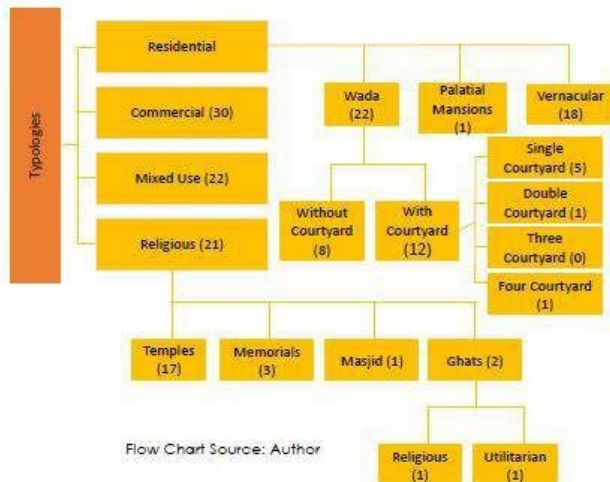


Topic –Conservation Proposal for Historic Town of Saswad, Pune

हेतू: शिवाजी महाराजांच्या वसाहती

35

From Heritage Listing and Grading, it can be analyzed that there are prominently residential, commercial, mixed use, religious typologies.

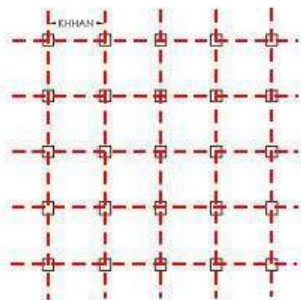


PESHTA PHASE-1712 CE-1818 CE

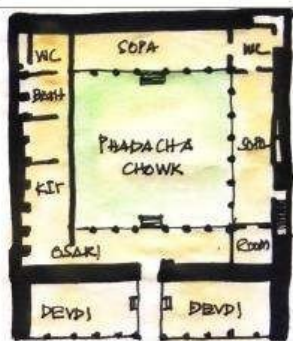
- Trebeated Structural system- Post and lintel
- Use of Tulaj, Kadipat, wooden columns with stone base (talkhade) and Khann planning
- Composite structure of stone plinth, Pustaki Vita, wooden railing
- Mud, Lime, Cow dung plaster for wall finishes
- Decorative moulding brackets

MATERIALS

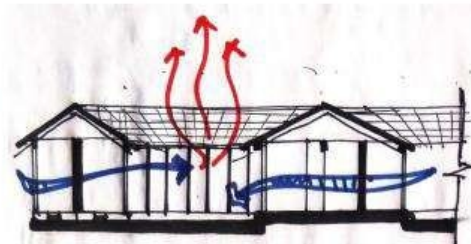
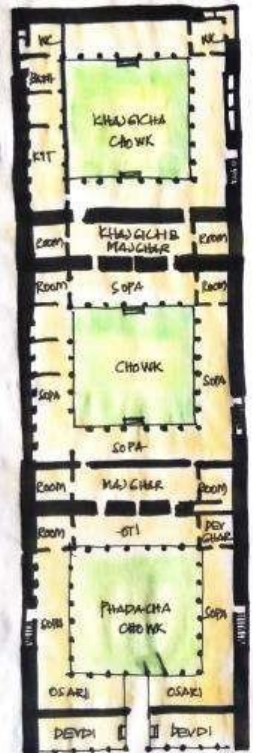
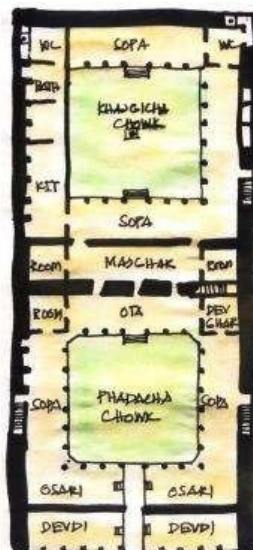
- Pustaki Vita or the flat bricks were first time used in Peshwa Period.
- The carvings on the brackets are very intricate.
- The door and windows have Navkari arch, segmental arch or Islamic arch.



Khann planning system of a Wada
Image Source: Author



Plans of Wada having Single, Double and Triple Courtyard
Sketch Source: Author



The Wada's are climate responsive due to the location it is constructed and the type of climate it is bearing.
Sketch Source: Author



Kadipat and Sadhe Chaff in a Wada
Image Source: Book Wada by Vilas Koli



Devdi's in a Wada which are used for keeping Diya's or important things
Image Source: Book Wada by Vilas Koli



ELEMENTS OF A WADA

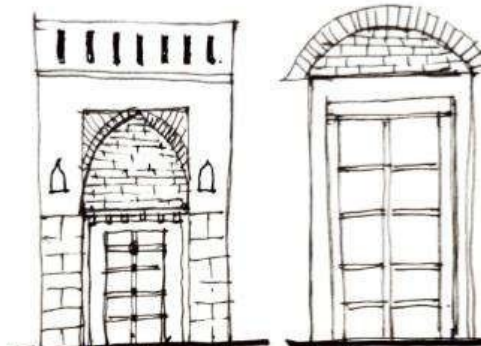


Sopha in a Wada

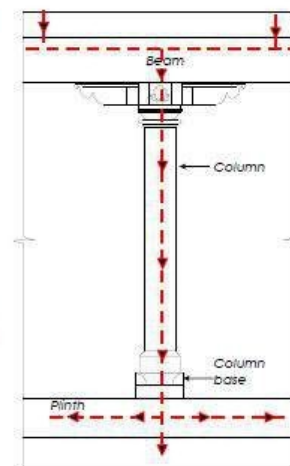
Image Source: Book Wada by Vilas Koli



Osari in a Wada



Different types of door openings of Wada having Bijapuri arch or semi circular arch, Devdi's at the entrance.
Sketch Source: Author



Typical load transfer system seen in a Wada.
The load is evenly distributed in the from the upper floor to the beam, and from the beam to the column and Talkhade and directly in the plinth
Drawing Source: Author



Devdi's in a Wada which are used for keeping Diya's or important things
Image Source: Book Wada by Vilas Koli



conservation proposal for historic town of Saswad, Pune
by: Shivam Shivam, D. P. Kulkarni

heat number: 20202005

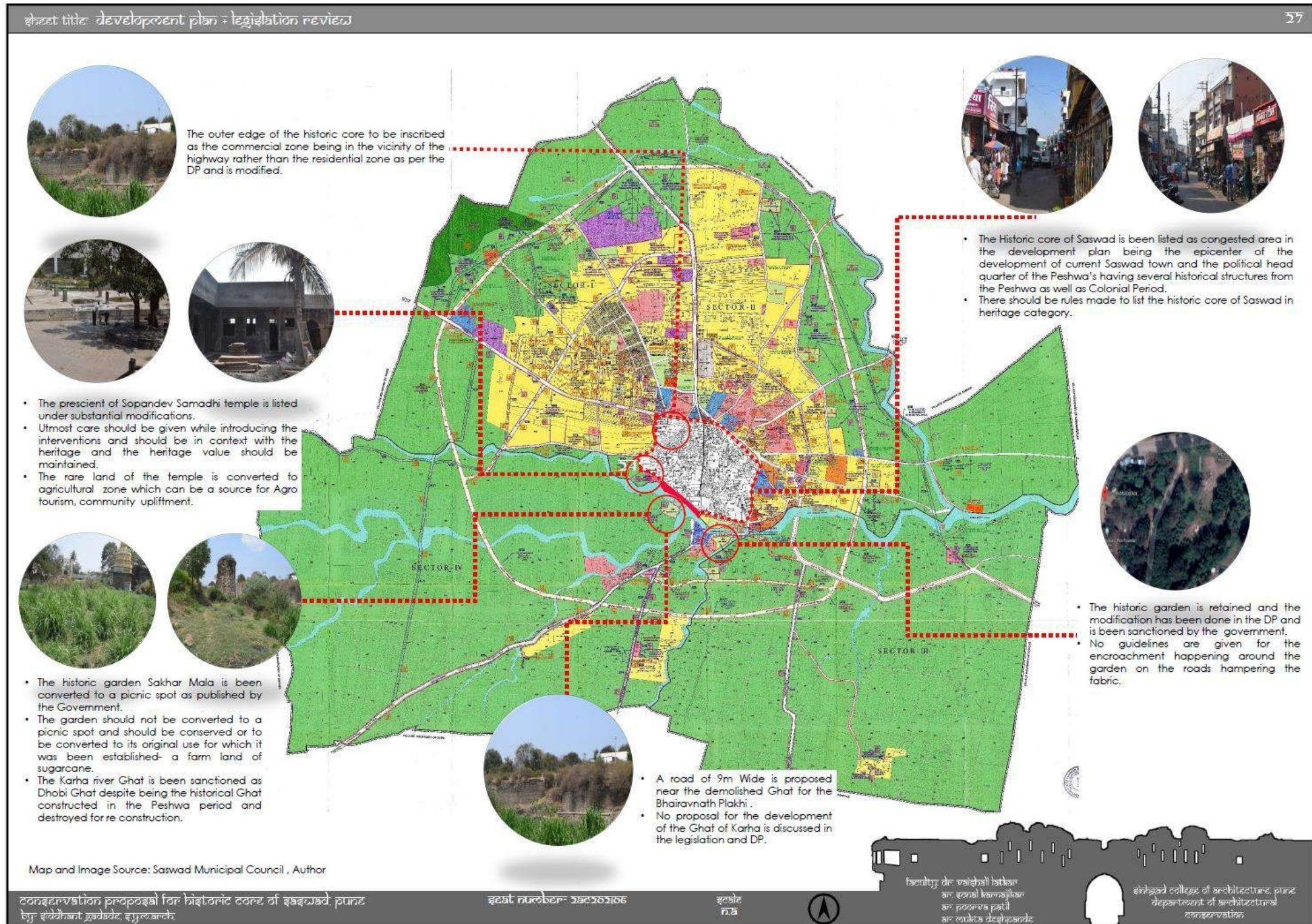
हेतू: शिवाजी महाराजांच्या वसाहती



संस्थान: शिवाजी महाराजांच्या वसाहती
आणि शिवाजी महाराजांच्या वसाहती
आणि शिवाजी महाराजांच्या वसाहती

संस्थान: शिवाजी महाराजांच्या वसाहती
आणि शिवाजी महाराजांच्या वसाहती
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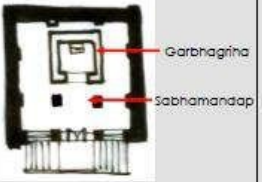


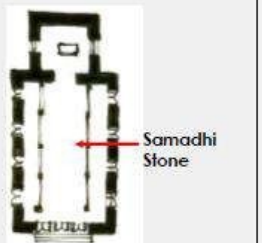


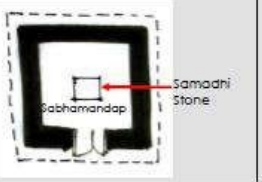


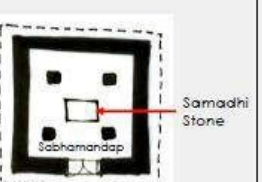


Topic –Conservation Proposal for Historic Town of Saswad, Pune



Topic –Conservation Proposal for Historic Town of Saswad, Pune

Project title: Architectural analysis of ancillary temples, Samadhis and ghats

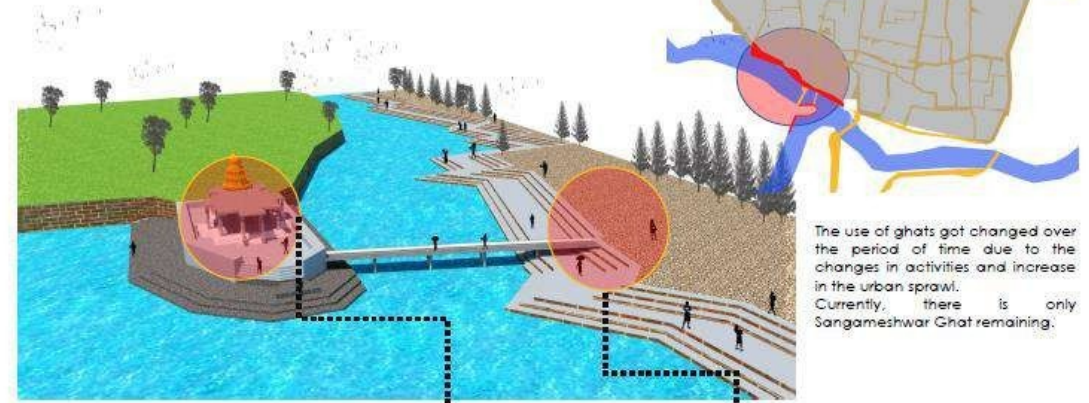
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Resource Name	Plan	Section	Elevation
Ganpati Temple			
Nagareshwar Temple			
Godajiraje Jagtap Samadhi			
Baji Pasalkar Samadhi			

PESHTHA PHASE-1712 CE-1818 CE

MATERIALS

- Basalt was prominently used in this period
- Pustaki Vita or the flat bricks were first time used in Peshwa Period.
- Mud, Lime, Cow dung plaster for wall finishes
- Decorative Niches are seen on the Ghat



3D View Source: Author

The use of ghats got changed over the period of time due to the changes in activities and increase in the urban sprawl. Currently, there is only Sangameswar Ghat remaining.



MahaShivratri and Tripuri Purnima is celebrated on the Ghats of Sangameswar Temple having religious functions. Several rituals used to happen on this Ghat



The Other side Ghat was used as Dhobi ghat and for small celebrations like Ganpati Visarjan.



Godajiraje Jagtap Samadhi



Veer Baji Pasalkar Samadhi



The painting of Sangameswar Temple done by Britisher Painter Robert Gidley showing the Ghat of Sangameswar Temple and Sarkar Wada at the behind and the remains of Karhabei Ghat near Sangameswar Temple



Ganpati Temple



Nagareshwar Temple



Balaji Vishwanath Bhatt Samadhi

Image, Sketch Source: Author, www.googlemaps.com, [https://en.wikipedia.org/wiki/Saswad#/media/File:Saswad_019XZZ000000400U00031000\(SVC2\).jpg](https://en.wikipedia.org/wiki/Saswad#/media/File:Saswad_019XZZ000000400U00031000(SVC2).jpg)

conservation proposal for historic town of Saswad, pune
by: Harshant Desai, B.Arch

Sheet number: 35030205

Scale
1:1



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