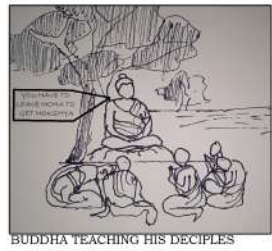


INTRODUCTION TO THESIS



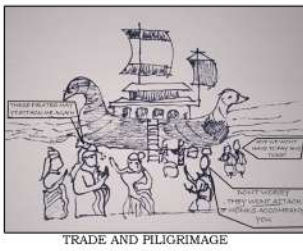
BUDDHA TEACHING HIS DISCIPLES



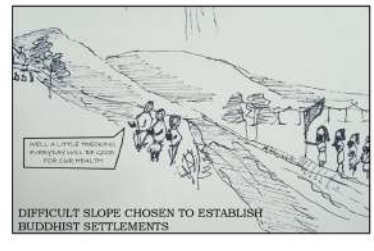
TAPASU AND BHALLIKA MEETING BUDDHA



AFTERMATH OF KALINGA WAR



TRADE AND PILGRIMAGE



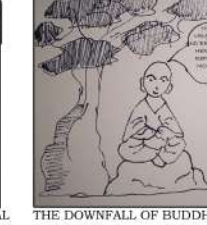
DIFFICULT SLOPE CHOSEN TO ESTABLISH BUDDHIST SETTLEMENTS



XUAN ZANG VISITING PUSHPAGIRI



JAJATI SELECTING THE REGION AS HIS CAPITAL



THE DOWNFALL OF BUDDHISM IN ODISHA



EXCAVATION OF THE SITES BY ASI

So the story of Buddhism that started with two merchants, cherished by rulers and merchants came to an end where the last remaining monks migrated to northern India and their followers migrated to other trade cities in hopes of finding a better living. These sites were abandoned for 400 years until 1955 when excavation started by ASI



Map of India showing location of Odisha. source - author



Map of Odisha showing location of Jajati. source - author



Map showing the delta area of Brahmani river valley. source - Chief Engineer Basin Planning and Climate Change, Govt. Of Odisha.



Map showing 15 major Buddhist sites. source - author

among the 32 identified Buddhist archaeological sites in Brahmani river valley, Ratnagiri, Kolhanagiri, Udaygiri, Lalitgiri and Olasurii, Langudi, Tarapur, Deuli, Kaima, Bajragiri, Kantigodika, Solampur, Marichit temple, Khadipada, Kupari, Soro and Kaupura are the 15 excavated ones.

Ratnagiri, Lalitgiri, Udaygiri, Langudi and Tarapur are the five among them taken for the study due to their close proximity and connection to Pushpagiri Mahavihara. These sites as shown on the basemap.

Observing 5000 years of human evolution, analyzing their life, lifestyle and legacies we conclude that religion had a tremendous impact on each of these, even more than we give it credit for. Beyond faith and fortune, religion has shaped and re-shaped the very fabric of society, economy, culture, architecture. Often times they sculpted the very landscape of sacredness that has stood the test of time and enriched our history. The region of study is no contradiction to it. The fertile delta of the river Brahmani houses some of Odisha's largest and most magnificent Buddhist sites, where evidence date back to Ashokan era and folklores talk about the time of Buddha himself. The great significance of these not only archeological, but also religious and cultural demand all the care and protection one could provide with out damaging the fabric of authenticity both physically and emotionally.

WORKING TITLE :

Strategies for enhancing the experience of the Buddhist archaeological site of Brahmani river valley.

AIM OF THE PROJECT-

To prepare guidelines for enhancing the experience, and promoting the Buddhist archaeological sites of Brahmani river valley.

OBJECTIVE OF THE PROJECT-

- To evaluate the significance of Buddhism in the Brahmani river valley.
- To understand the linkage between different Buddhist sites present in the valley.
- To prepare documentation drawings of the heritage structures in form of archaeological remains at site and mapping of cultural resources.
- To establish the site potential as living monuments.
- To understand the connection between site and local community.
- To establish the relevance of the sites together as Buddhist religious landscape in the world context.

SCOPE OF THE PROJECT:

The valley contains more than 26 excavated and many identified but unexcavated sites. The sites concerning the study are five among these 26 and are taken due to their close proximity and high archaeological value. The study can be extended to the other archaeological sites both excavated and unexcavated.

The thesis can lead to making policies and guidelines for development of the entire river valley on regional level.

LIMITATIONS OF THE PROJECT:

These sites are ASI and State protected monuments and hence have limitations towards the protection offered. The site survey acknowledges their contribution yet are critical reviews towards their current condition and protection. The condition assessment is based on primary observations, a detail scientific survey followed by further excavation may redefine the archaeological sites.

EXPECTED OUTCOME:

Detailed documentation and condition mapping of the sites. Contemporary heritage value assessment of these sites. Comprehensive proposal for development of the Buddhist archaeological sites of Brahmani river valley.

NEED FOR THE THESIS:

Among many the following are some of the major reasons for this thesis. The sites chosen are historically important due to its association with the earliest Buddhist concepts and philosophy. Yet the lack of architectural study around these structures shows the sheer neglect done in comparison to its peers. The site is greatly associated with the maritime heritage of the state.

METHODOLOGY:

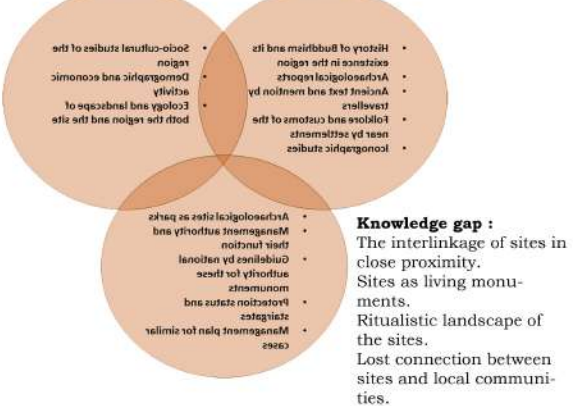


LITERATURE STUDY :

The literature study focused on works done by archaeologists, historians, curators, management professionals and architects. This also includes reports published by different organizations and governing bodies such as ASI, Odisha state archaeology, INTACH Odisha, Odisha Institute of Maritime And South-East Asian Studies and Odisha tourism department. The published works include annual reports by ASI, memoir's concerning the excavation and conservation of these sites, reports of identification, excavation and conservation work done by the state department and annual activity reports published by the tourism department. Apart from that the published papers by the officials and academicians are also included.

Sl. No.	Book/ paper name	author	publis h year	content/ remarks
1	Journal of Asiatic Society of Bengal, XXXIX, No. 3, 1870	Markham Klose	1870	This books gives illustrative images and description about the their state of sites in the coastal region as well as Mahabandi and Brahmani river valley. It gives an insight about how the geological, and political isolation gave protection to the art and monuments of the region, thus making them more authentic in the present scenario.
2	The Antiquities of Orissa, 1880	R. Mitra	1880	One among many conclusions of his book is that every find of the first as mentioned in Odisha is Buddhist, with a few Jain images making a vast exception.
3	History of the Art of Orissa, Calcutta, Orient Longman Ltd	Charles Louis Fehri	1974	Period of the Early Dynasties, " includes chapters from through nine and begins with the sculpture and architecture of the Maurya period that shades light on the early Buddhist art and architecture of Odisha. Chapter 12 is about the art and architecture of 6th-8th century.
4	The Art of Ancient India, MLBD, New Delhi	Susan L. Huntington	2014	Highlighting art, architecture, geography and trade the author concludes that, relatively early Buddhist sites cluster near cities well connected to trade routes thus shaping the present and history.
5	Early Buddhism, Trade and Pilgrimage: Studies in the Archeology and Ethnology of South Asia, New Delhi	James Heilbrunn	1984	Different photographic depicting the diversity of Buddhist art and architecture in India.
6	Trade, Urbanism, and Agricultural Expansion-Buddhist Monast, Institutions and the State in Early states, Western Descent	Kathleen Morrison	1999	The work examines the hypothesized link between Buddhism, trade and state formation and suggest that no simple causal relationship can be discussed.
7	Early India: From the Origins to A.D. 1300, Penguin Books	Homiya Thapar	2003	Offers insight into the history of the religion till 13th century
8	2500 Years of Buddhism, Delhi, Publication Division	P.V. Bapat	1987	Shows insight into the history and development of the religion and its many dimensions.
9	Political Violence in Ancient India, Harvard University Press, Cambridge	Upinder Singh	2017	Shows insight into the socio-political scenarios of ancient India and how religion played a part into developing ethnic characteristics.
10	The Jataka: Stories of the Buddha's Former Births, Vol. II, Book IV, No. 301, Dhaka: Itihas-sanskita, Pall Text Society, London	E. B. Cowell	1951	gives elaborated idea about the life of Buddha, the religion and its belief systems.
11	The Earliest Buddhist Shrine: Excavating the birthplace of Buddha, Lumini, Nepal	R.A.F. Cunningham	2013	Memoir or containing the detailed accounts of the excavation at lumini.
12	ASI Reports XII, p. 96, R. K. Saha, Buddhism in Odisha, Bhubaneswar, Pal Text Society, London	A Cunningham	1954	Memoir or containing the detailed accounts of the excavation at different Buddhist sites in Odisha
13	BUDDHISM AND MARITIME HERITAGE: Renewing the Maritime Trade & Civilizational Linkages Bhubaneswar, Odisha	Dr. Sunil Kumar Patra	2015	Gives insight into the socio-economic, political and religious scenario of Odisha at the peak of Buddhism and its influence on maritime trade
14	Archae and Ancient History of Jajpur	Dr. C.B. Patel		Gives insight into the socio-economic, political and religious scenario of ancient and modern Jajpur

Chart showing inference of the papers and books studied for literature review. source - author



INTRODUCTION TO THESIS

Buddhist landscape overall represents the natural and built scape of a Buddhist site r settlement. This includes holy sites, Buddhist monastic sites, sites for knowledge, education, and important historical sites with edicts. These site differ in geography, ecology and architectural style, but some similarities in features can be seen.

1. Buddhist holy sites where Buddha stayed, visited, had sermons and where his body parts are kept as relics.
2. Rock-cut Buddhist sites.
3. Buddhist settlements and centers for education, knowledge and preaching.

Buddhist holy sites where Buddha stayed, visited, had sermons and where his body parts are kept as relics.

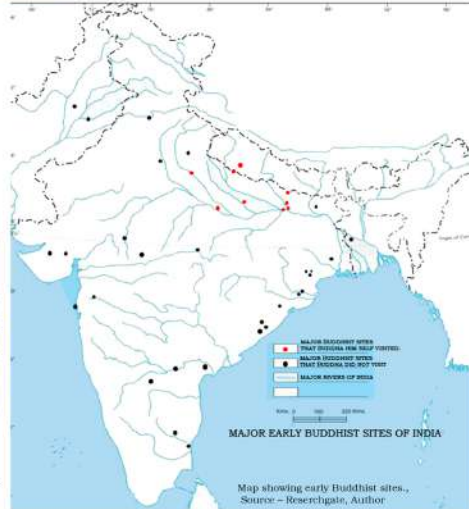


map showing the early Buddhist sites where Buddha visited in context with the mahajanapada of 6th to 2nd century., Source - Author



map showing the Bodhi tree site with its surrounding context., Source - Author

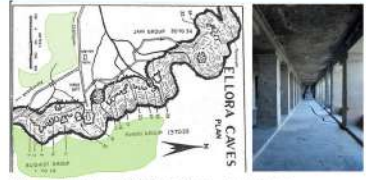
Situated near river, inside or near a Mahajanapada, on flat land of Indo-Gangetic Plain. Tall shrines and stupas to concentrate the attention, and presence of a Bodhi tree as it represents Buddha himself.



Map showing early Buddhist sites., Source - Researchgate, Author

Rock-cut Buddhist sites

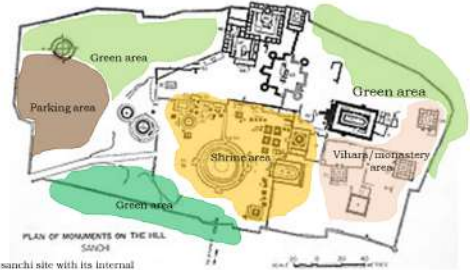
Situated high as the altitude, magnificent caves, shrines and chaityas carved in rock represent another typology of Buddhist landscape. One of the major examples of this typology is the Elora caves where cave 1 to 12 is dedicated to Buddhism.



Plan and images of cave 12 at Elora Source - elloracaves.org

Buddhist settlements and centers for education, knowledge and preaching

These sites are mostly built after Ashoka to spread Buddhism. They are mostly situated on low-lying hills or hillocks at a buildable slope and are mostly on river banks. Stupas are not high in height but are built at the highest slope for them to be visible and have the most importance.



map showing the sanchi site with its internal and surrounding context., Source- wikipedia

EVOLUTION OF BUDDHIST ARCHITECTURE



The later phase of Hinayana and early Mahayana focused on stupas as a holy symbol, thus the landscape had stupa in center.



With the Kushanas rising to power, Mahayana Buddhism raise to power, its most iconic landscape are the rock cut structures present in the Western ghats



The earliest period of Buddhism evolved along the natural vedic landscape. These sites where Buddha resided, preached and later his followers gathered were large open spaces, surrounded by trees in the outskirts of a Mahajana-pada.



Hinayana period transition from early sangha, adding a sacred symbol of Buddha to practice and landscape. **Bodhi tree** was the prominent one among them.

The transition from Mahayana to Vajrayana period saw some Changes like change in the shape of the Stupa and Viharas replacing Chaityas as now they have a shrine complex with "parikrama" inside.



The prominent features of a Vajrayana period Buddhist landscape developed in the much later phases. The landscape is mostly on difficult terrain and higher altitude.

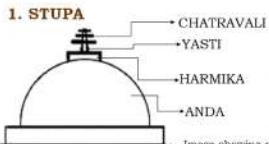


Image showing mahastupa at sanchi, source - author

The Stupa was a sacred structure in which relics of Gautama Buddha himself or other important monks were kept.

2. CHAITYA



Image showing chaitya plan of Udaygiri, source - Author

Chaitya is the prayer hall or Shrine in a Buddhist complex. These halls developed in the Mahayana period as idol worship increased.

3. VIHARA/MONASTERY



Image showing monastery plan of Sanchi, source Author

Viharas were the residential quarters for the monks serving in the shrine. A few of the Vihara's who became immensely popular for their teachings beyond religious topics got converted into Mahaviharas (universities)

4. PAGODA:

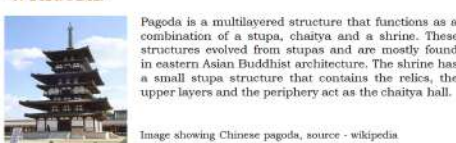


Image showing Chinese pagoda, source - wikipedia

Pagoda is a multilayered structure that functions as a combination of a stupa, chaitya and a shrine. These structures evolved from stupas and are mostly found in eastern Asian Buddhist architecture. The shrine has a small stupa structure that contains the relics, the upper layers and the periphery act as the chaitya hall.

5. PILLARS AND EDICTS :



Image showing an Asokan pillar, source - wikipedia

Pillars and edicts stand as memorials of victory, preaching and the greatness of the patron. Asokan pillars and edicts are most famous among the Buddhist sites.

THE CONCEPT OF ARCHAEOLOGICAL PARK :

An Archaeological Park can be defined as a park where historic structures and built heritage takes priority over nature, Built heritage is inclusive of underground heritage, archaeological sites, standing monuments and historic structures. The high priority given to built heritage ensures the underground areas to be protected till resources can be found for excavation. The historic landscape have to be carefully conserved. In the Archaeological Park the heritage will be interpreted and communicated to the visitors.



Case study of The Archaeological Park at Mehrauli :

The deserted capitals of Rai Pithora and Lalitok Will become The Archaeological park for the people of Delhi. The surviving structures and vegetation can tell us many stories:

Walls and gateways: The military architecture and the grim wars that were fought.

Water structures: water storage & distribution system of 12-14th centuries

Gardens & orchards: historic landscapes and ingenious use of site features such as high point

Underground heritage: yet to be discovered

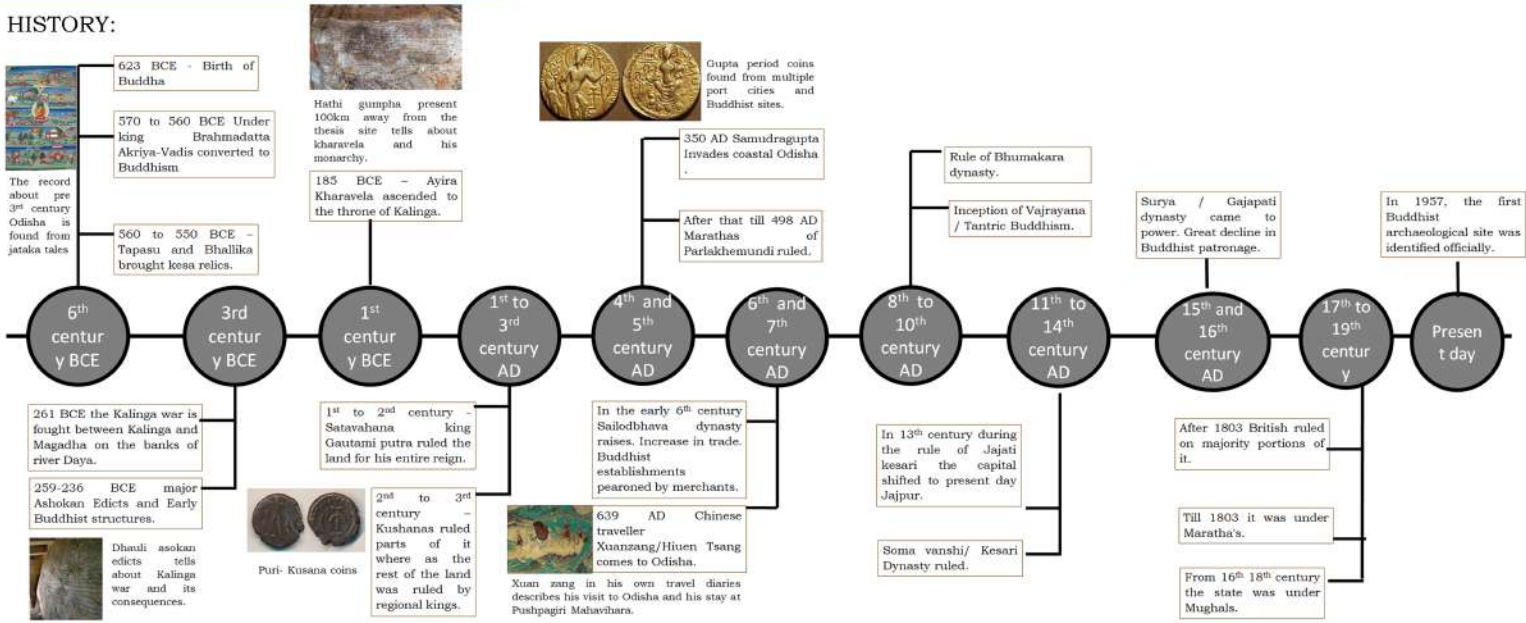


image showing Mehrauli park, Source - wikipedia



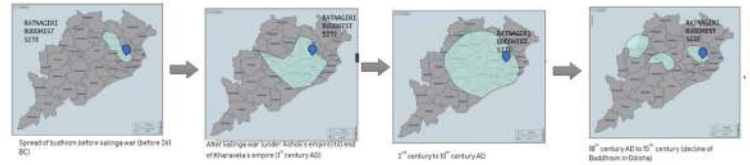
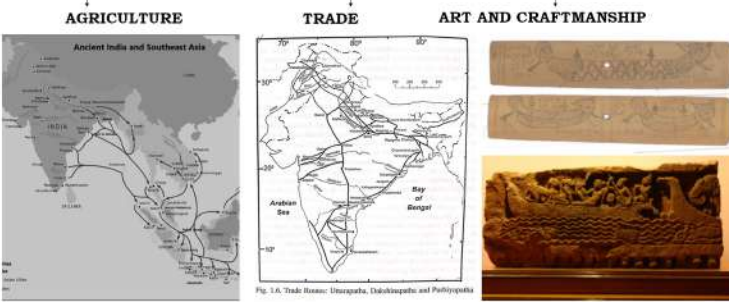
SITE CONTEXT:

HISTORY:

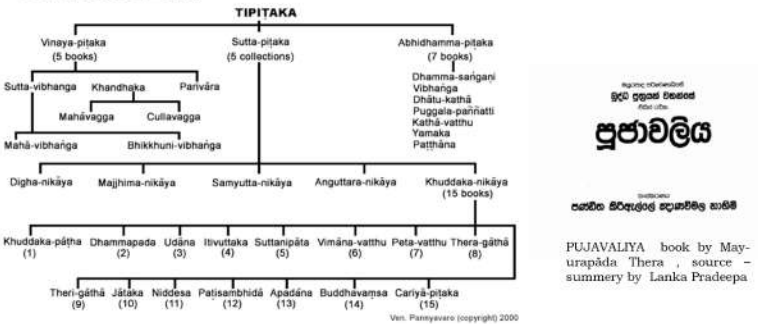


TRADE AND LINKAGE:

ANCIENT ECONOMY OF ODISHA



ANCIENT TEXT:



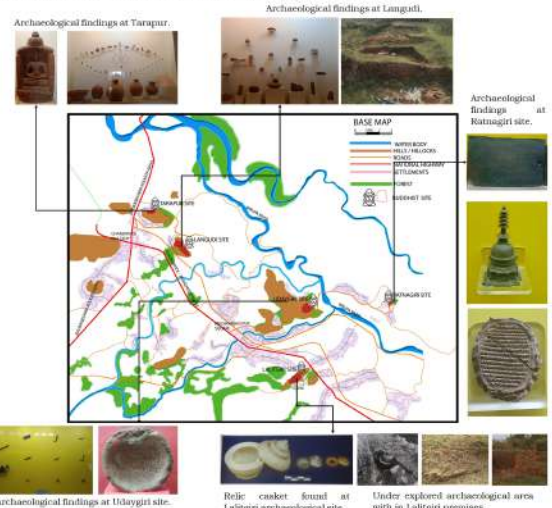
Multiple ancient texts of Buddhist religion has mention of the state then named Toshali or Udra or Odra and give vivid account of the socio-cultural scenario of the region. They also give insights of the monastic values, principles and functions. They also show how and why these monastic settlements grew and contributed to the region exponentially.

ARCHAEOLOGICAL EVIDENSES

Trade helped pilgrimage and infrastructure development. In return pilgrimage helped to create better geo-political relationship and cultural exchange. Thus major pilgrimage sites either fall on trade routes or trade route move through them. Making a chain of custody for the resourced provided ensured wise utilization, gaining devotion to Buddhism as well as create merchants as loyal subject base bound through spirituality and culture.



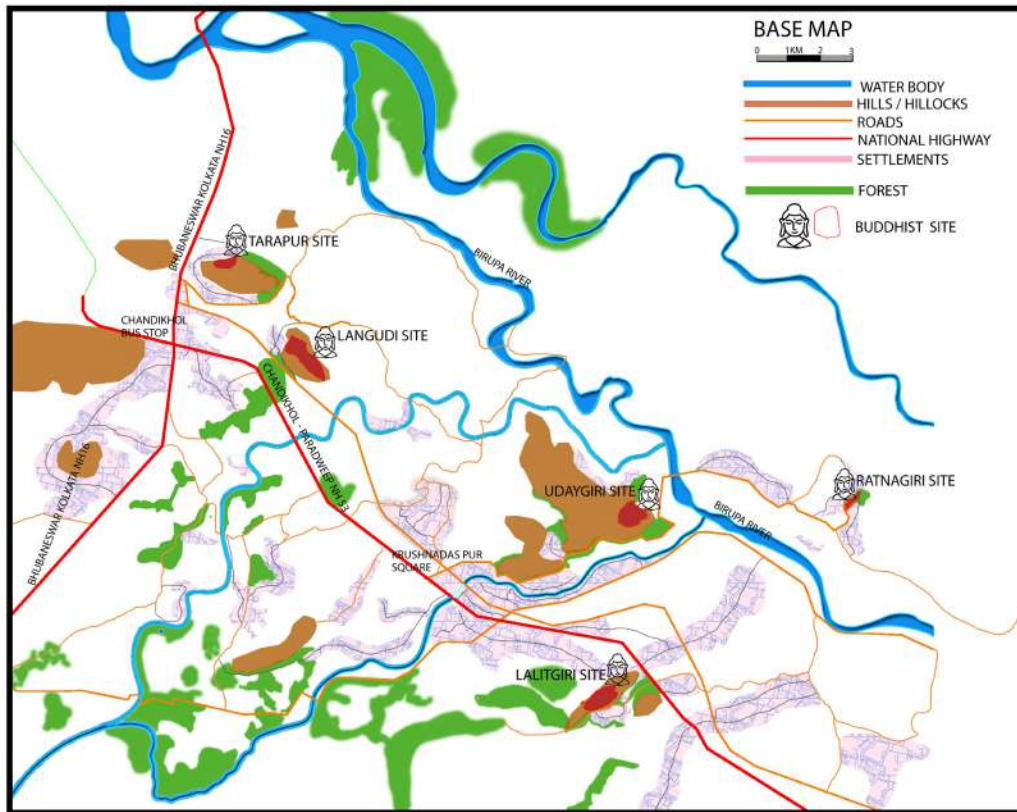
In present day scenario the sites are accessible by national highway number 16 and 55. Highway 16 connects it to the capital city where as NH 55 connect to Paradip port. Further each site is connected to the maid road via individual village roads. The ancient linkage was done through sea and river. River Birupa and Chitrotpala are the two nearest river and are a part of Brahmani river only. These two rivers along with Brahmani and Mahanadi were the once used frequently for inland trading and linkage. There existed three ports in ancient Odisha to which these rivers connected. They were Kosamba, Bhadrak, Tamralipti, Khalkattapatna and unnamed forts in kendrapada district that finds mention in Greek sailor Ptolemy in 2nd century CE.



The archaeological evidences not only increase the value of the site, also tells us about the lifestyle, traditions, socio-political scenarios and religious practices of the era. They also contribute to the historical timeline and authenticity of the site. the archaeological evidences contain various edicts and coins that strengthens the history of trade and its relation to these monastic settlements.

STRATEGIES FOR ENHANCING THE EXPERIENCE OF THE BUDDHIST ARCHAEOLOGICAL SITE OF BRAHMANI RIVER VALLEY.

SITE CONTEXT :



BASE MAP , Source - Author



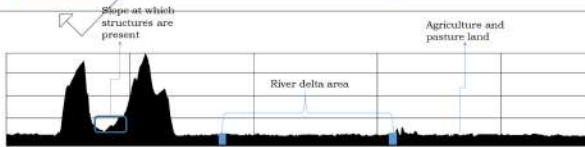
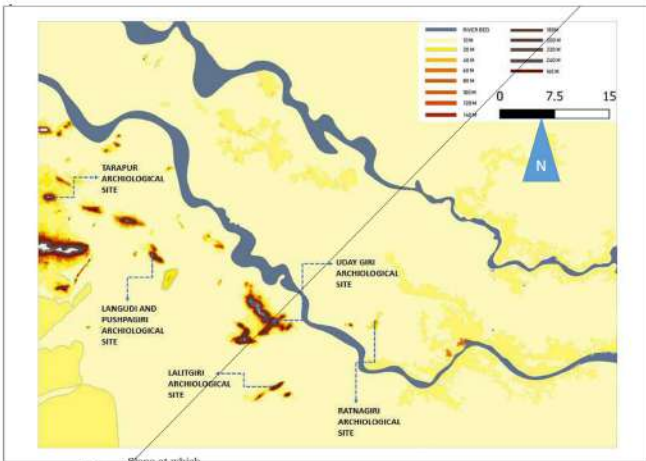
The basin consisting of Brahmani and Baitarni extends over states of Odisha, Jharkhand and Chhattisgarh, while the major delta area is in two districts i.s. Jajpur and Kendrapada. It was the cultural centre of Bhumakaras, the birthplace of Vajrayana Buddhism, Shaktipith of Viraja or the newly established capital region of Jajati kesari, the undeniable concentration of diverse religious and cultural heritage is what makes this region special.

Name of the sites	Historic at time period	Monuments/ structures present	Area in sq. feet	Peak season	Available amenities	Activities
Ratnagiri	5 th century AD - 10 th century AD	• Monastery 1 • Monastery 2 • Stupa of Votive stupa • Chaitya and Mahastupa complex • Mahastupa temple	86,508	October - February	Parking, Museum, interpretation center, security, drinking water and toilet complex, site supervisor office.	Light and sound show, guided tour (closed due to covid pandemic) Cultural activity on selected occasions.
Udaygiri	2 nd century AD, 7 th to 12 th century AD	• Monastery 1 • Mahastupa • Rock cut stuped • Monastery 2 and stupa complex • Shakti temple and math	30,500	October - February	Parking, site supervisor office, toilet, drinking water	Cultural activity on selected occasions, morning prayer at Shakti and stupa temple inside the stupa, monks arranged by Math on selected occasions.
Lalitgiri	3 rd century AD to 6 th century AD	• Monastery 1 • Monastery 2 • Monastery 3 • Monastery 4 • Chaitya complex • Mahastupa	47,903	October - February	Parking, ticket counter, Museum, interpretation center, security, drinking water and toilet complex, site supervisor office.	Guided tour (closed due to covid pandemic)
Langudi	3 rd century AD to 7 th century AD	• Mahastupa • Rock cut chaitya • Monastery under excavation	5,000	October - February	Parking, site supervisor office with attached toilet, drinking water.	Under excavation site. Guided tour by site supervisor. Morning prayer by locals.
Tarapur	3 rd century BCE to 6 th century AD	Rock cut stupa Tara temple	N/A	October - February	Museum, interpretation center, security, drinking water and toilet complex, site supervisor office.	

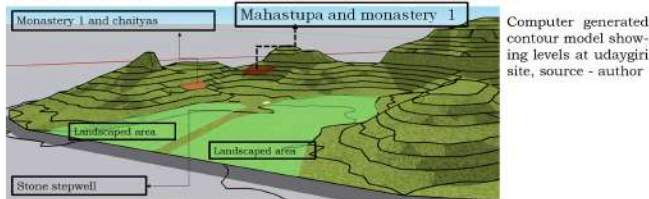
Table containing site survey inventory , Source - Author

One of the most important aspect of this region is the presence of ancient city of Jajpur here. The largest concentration of Buddhist archaeological sites are in this area as well. The site consists of fifteen Buddhist scattered across the delta of Brahmani and Birupa river. They are, Ratnagiri, Kolhanagiri, Udaygiri, Lalitgiri and Olanuni, Langudi, Tarapur, Deuli, Kaima, Bajragiri, Kantigodia, Solampur, Marichi temple , Khadipada, Kupari, Soro and Kaupur. The five sites taken for the thesis are, Ratnagiri, Lalitgiri, Udaygiri, Langudi and Tarapur. These sites as shown on the basemap

CONTOUR AND WATER SHED:



Contour map of the area containing five major Buddhist archaeological sites of the region. Source - Author

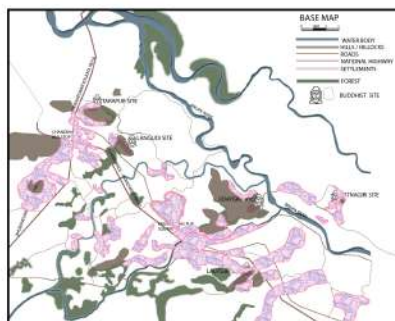


Computer generated contour model showing levels at udaygiri site, source - author

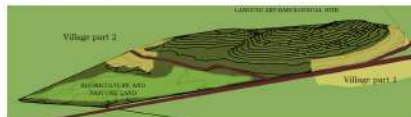
The sites are on the either side of the delta created by Brahmani. It is a catchment area for small streams as well. It receives a lot of flood in rainy season and that might be a reason the monastic structures preferred to stay at higher levels such as hillocks and highlands. The river also helps maintain a health water table which would have helped the settlements grow.

It can be noticed that, though the site has a lot of an even contours, the structures are built at a lesser height and on the side that has buildable slope.

SETTLEMENTS :



Map showing settlements , Source - Author



Computer generated model showing the linkage and settlements near the Langudi Buddhist site, source - Author

FLORA AND FAUNA :

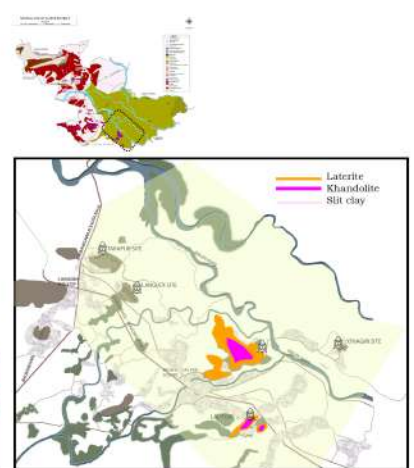


The forest composition of Jajpur District comes under Tropical Forest and semi evergreen forest as per forest type classification category. Sall is a major tropical tree. Trees provided the much needed shade and in Vajrayana sect functioned as places of classroom for the new students.

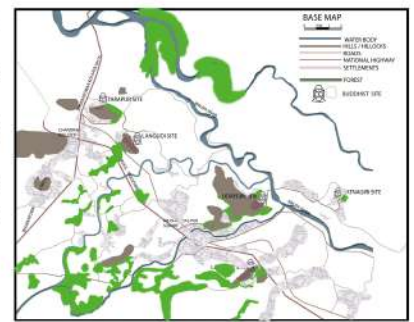


Banyan trees and other trees at Udaygiri site , Source - Author

SOIL AND MATERIALS :



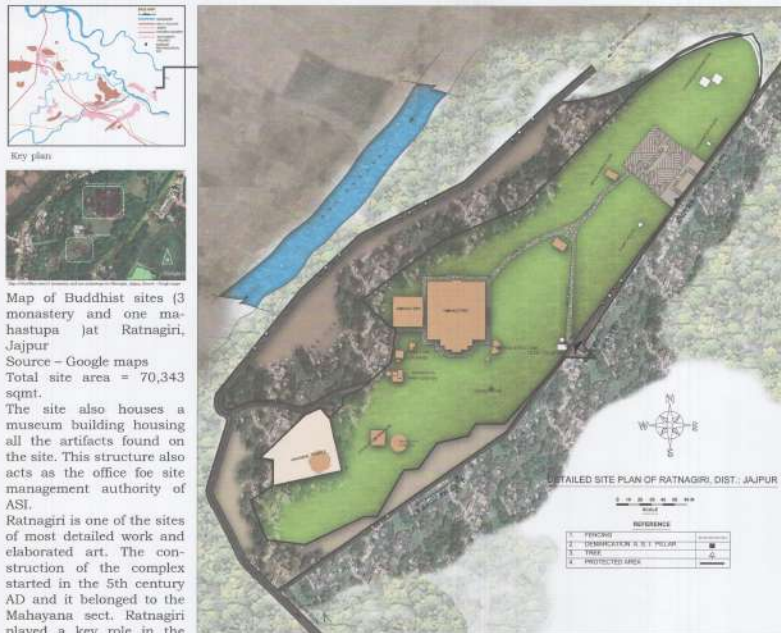
Map showing soil and stone of the region , Source - Author



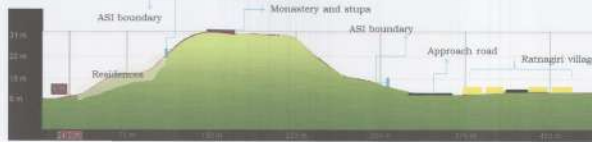
Map showing forest cover in the region , Source - Author

SITE DOCUMENTATION:

RATNAGIRI ARCHEOLOGICAL SITE



Site plan of Ratnagiri archaeological site, Source - Author



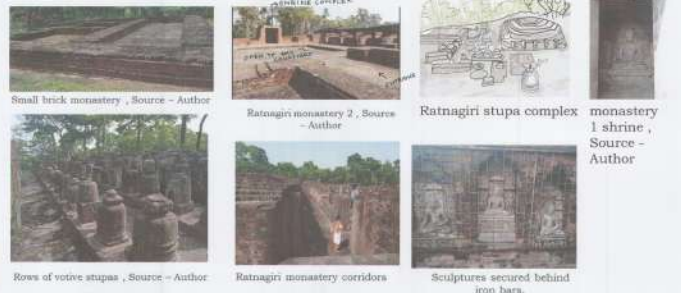
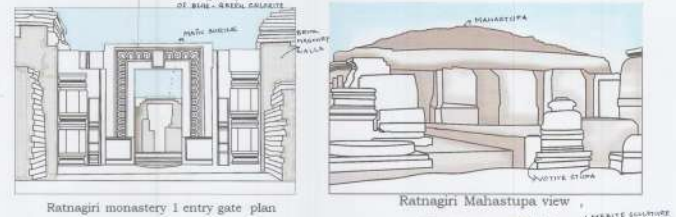
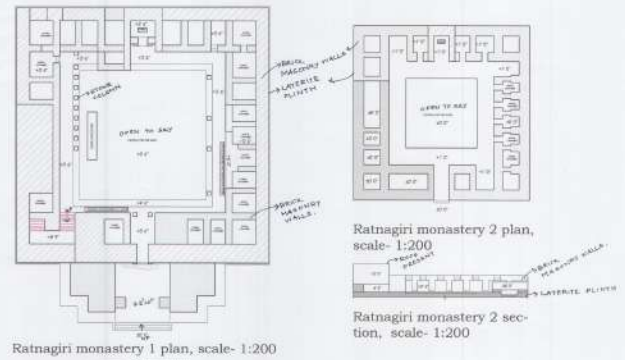
ANALYSIS :

THE SOIL SAMPLES ARE BARELY SUFFICIENT FOR A REASON TO LIVE.

LIES NEAR MAHAYANA STUPA. STUPA IS SITUATED AT A HIGHER LEVEL THAN THE OTHER STRUCTURES. (See Appendix 3)

STUPA COMPLEX

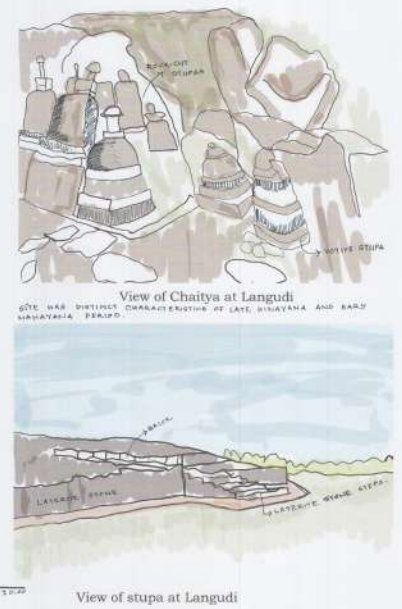
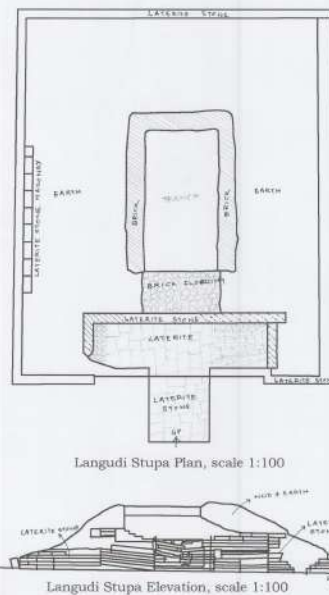
MAHASTUPA



LANGUDI ARCHEOLOGICAL SITE



Langudi Site Plan



STRATEGIES FOR ENHANCING THE EXPERIENCE OF THE BUDDHIST ARCHAEOLOGICAL SITE OF BRAHMANI RIVER VALLEY.

SITE DOCUMENTATION:

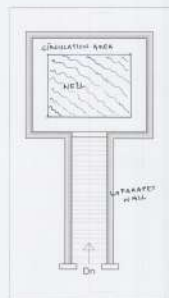
UDAYGIRI ARCHEOLOGICAL SITE



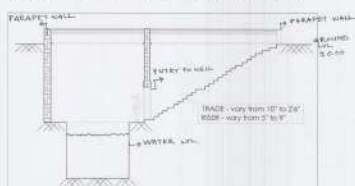
Map of Buddhist sites (one stone step well, 3 Monastery, one Chaitya and two Mahastupa) at Udaygiri, Jajpur. Source - Google maps
Total site area = 2,41,591 sqmt.

Along the heritage structures the site houses the store rooms, office for the site care taker and a park. Udaygiri is the next point of the diamond triangle situated 10km away from the Ratnagiri site on the banks of Birupa river. Similar to Ratnagiri, the entire complex sits on top of a low rise hillock and the high lands surrounding it. A little higher on the slope sits the unique stone step well created to tackle the dry season. The path next to it leads to a large brick monastery called the Simhaprashta maha vihara, multiple stupas of varying sizes, a chaitya hall, the maha stupa, and another smaller monastery.

The architectural style and analysis of inscriptions throughout the palace show that it flourished between the 7th and 12th centuries AD.



Udaygiri rock cut step well plan, scale- 1:100



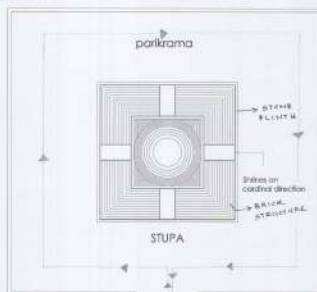
Udaygiri rock cut step well section, scale- 1:100



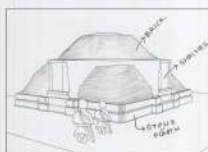
Rock-cut stepwell views. Source - Author



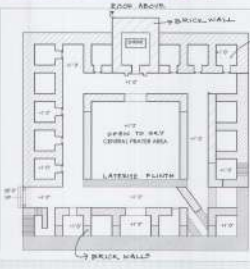
SITE PLAN OF UDAYGIRI ARCHAEOLOGICAL SITE NOT TO SCALE
OFFICIAL ASI SITE BOUNDARY



Udaygiri Mahastupa plan, scale- 1:100



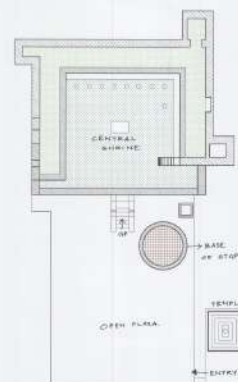
Udaygiri Mahastupa view



Udaygiri monastery 1 plan, scale- 1:200



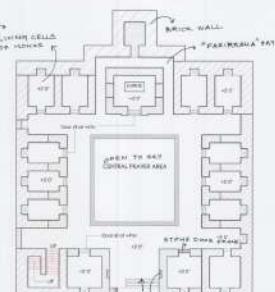
Udaygiri monastery 1 shrine gate details



Udaygiri shrine plan, scale- 1:200



Udaygiri shrine view



Udaygiri monastery 2 plan, scale- 1:200

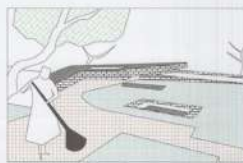


Udaygiri monastery view

ACTIVITIES AT THE SITE :

EVERY DAY MAINTENANCE ACTIVITY :

Cleaning of the premises and structure
Trimming and watering of bushes, and flower plants
Checking the safety of structure
Readying the museum for visitors



Cleaning of the site every morning

EVERYDAY PUBLIC ACTIVITY:

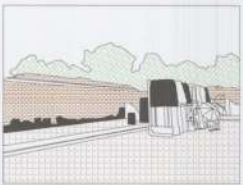
Visits by locals
Visits by monks
Picnics by students and family
Visit by professionals and students for study
Evening visit of elderly and kids to the park inside.



Pilgrims visiting the site

OCCASIONAL ACTIVITY :

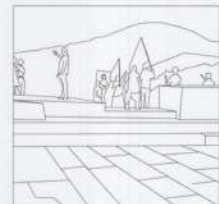
Audio visual making
Documentary making
Special photography for weddings. And commercials.



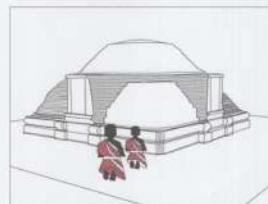
Cinema shooting at site



Map showing procession route and stops, source - Author



Procession at Mahavihara, source - Author



Procession at Mahastupa, source - Author

ANNUAL ACTIVITY:

Every year on Buddha Purnima the monks, students and other locals celebrate and pray at these sites. The rituals are quite similar at all of the sites except for Tarapur, as no function is held there. The procession of devotees, monks and students leave the ashram school premises, reach the site, students wash the feet of monks before climbing up to the stupa, offer prayers there, and pledge to follow the path of Dharma, come to a monastery premises and sit on the courtyard to pray and chant, with the monks. "Kheer Puri" is given as Prasad after all the rituals are done.



A child fetching water from rock stepwell, source - Author

STRATEGIES FOR ENHANCING THE EXPERIENCE OF THE BUDDHIST ARCHAEOLOGICAL SITE OF BRAHMANI RIVER VALLEY.

LALITGIRI ARCHEOLOGICAL SITE

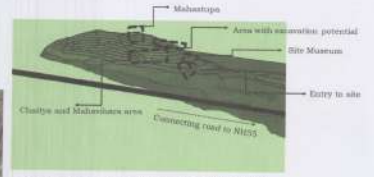
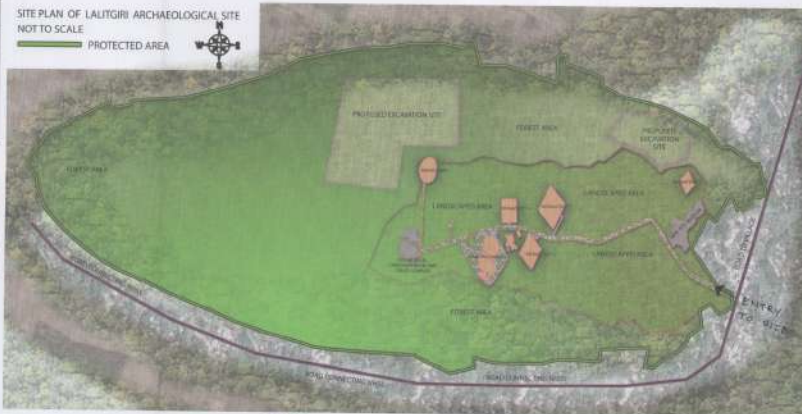


Google earth image showing the Lalitgiri site.

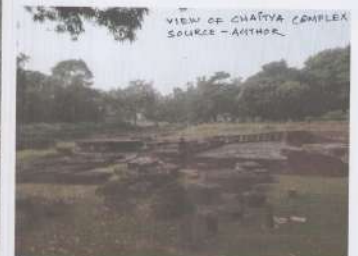
Map of Buddhist sites (3 Monastery, One Chaitya and 2 Mahastupa) at Lalitgiri, Jajpur. Source - Google maps. Total site area = 2,41,591 sqm.

This site houses 2 museum buildings along the archaeological sites. These museums houses all the artifacts found on the site. This structure also acts as the office for site management authority of ASI. The most exciting discovery is the three relics (two containing small pieces of burnt bone) inside the stupas at Lalitgiri. Buddhist sources state that after the death of the Buddha, his body was distributed among his disciples to be placed inside the stupas. Thus, the fossils are thought to have belonged to Buddha himself.

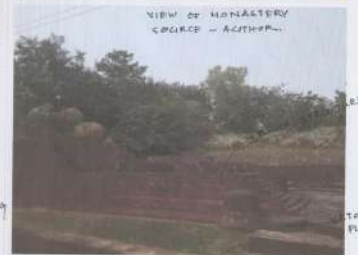
SITE PLAN OF LALITGIRI ARCHAEOLOGICAL SITE NOT TO SCALE



Conceptual architectural model of Lalitgiri site. Source - Author



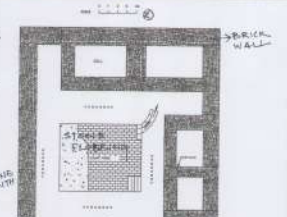
VIEW OF CHAITYA COMPLEX SOURCE - AUTHOR



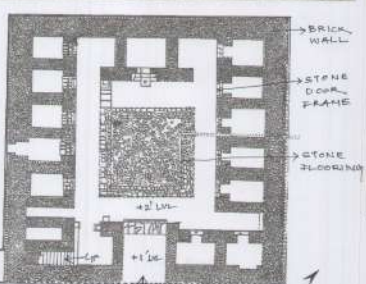
VIEW OF MONASTERY COMPLEX - AUTHOR



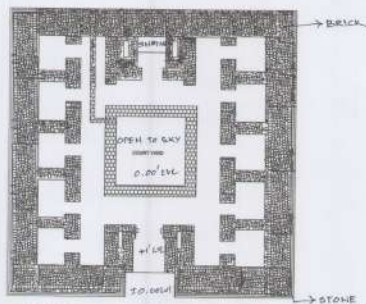
Lalitgiri apsidal chaitya plan, scale- 1:200



Lalitgiri monastery 2 plan, scale- 1:200



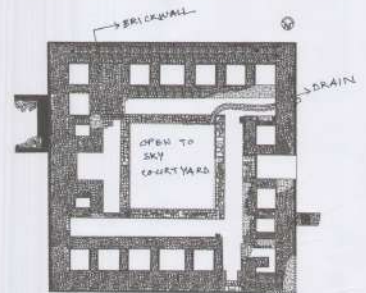
Lalitgiri monastery 3 plan, scale- 1:200



Lalitgiri monastery 4 plan, scale- 1:200



Mahastupa view



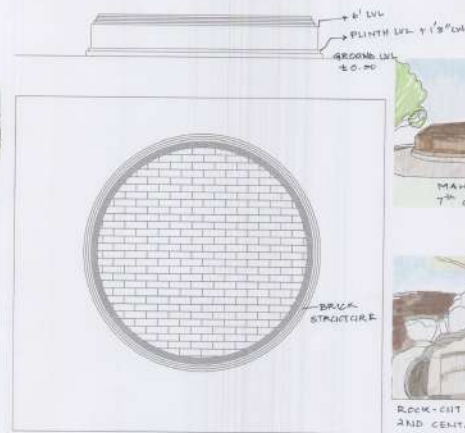
Lalitgiri monastery 1 plan, scale- 1:200

TARAPUR ARCHEOLOGICAL SITE



SITE PLAN OF TARAPUR

Tarapur site plan



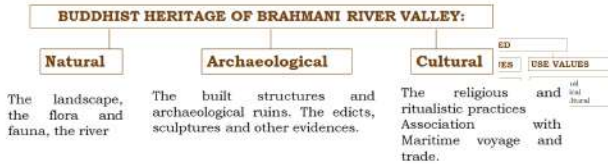
Tarapur stupa plan, scale- 1:100



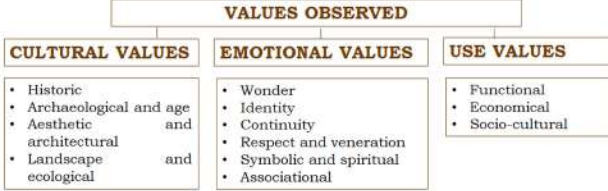
ANALYSING THE SITES: VALUE, SIGNIFICANCE, ISSUES AND THREATS

SIGNIFICANCE ASSESSMENT :

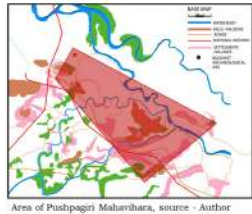
The heritage of the Brahmani river valley, in context to Buddhist landscape, are divided into three parts.



Each archaeological site has its own set of values and significance, but for this study we will do the value analysis taking all 5 sites as a larger Buddhist landscape.



Values	Scale	Justification
Historic	High	These sites are mentioned in different historic text as Pushpagiri Mahavihara,
Archaeological and age	High	Largest Buddhist archaeological sites in Odisha with a time span varying from 2 nd century BCE to 13 th century AD.
Respect and veneration	High	These are highly praised archaeological sites with much sacred value as well
Symbolic and spiritual	High	Being the origin place of Vajrayana Buddhism and the sites association with the great teacher Padmasambhava (Guru Rinpoche and the Lotus from Oddiyāna), it has very high symbolic and spiritual value.
Economical	Moderate	Tourism, pilgrimage and stone craft are the economic activity associated with the site.
Landscape and ecological	Moderate	The present day sites have retained parts of the ancient landscape, flora and fauna along with hydrology.
Architectural	Moderate	The ruins give a clear idea about the typology of structures prevailing at that time.
Functional	Low	As archaeological sites, the majority are ruins and are not fictional as per their original intent.
Continuity	Low	The connection between the locals and the sites are gradually vanishing.



LEGAL FRAMEWORK:

- State of protection - ASI protected monuments
- Ownership - Archaeological survey of India.
- ICOMOS- International Charter for The Restoration of Historic Monuments, 1931
- VENICE CHARTER- International Charter for the Conservation and Restoration of Monuments and Site, 1964
- The Antiquities and Art Treasures Act, 1972,
- National tourism policy, 2002
- The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010,"
- National monuments authority
- Gazette Notification Regulating Prohibiting and Regulated Areas, 1992
- Article 49 in The Constitution of India 1949

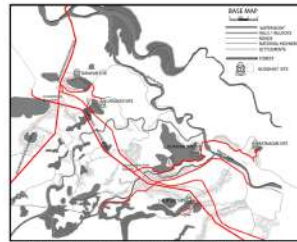
- The area of the Property is demarcated by an enclosure (walled) preventing any form of detrimental activities within the area. A 100 meter area from this enclosure, vide the AMASR Act 2010 is a Prohibited Area and a 200 meters thereon is a Regulated Area. The area of the Property is demarcated by an enclosure (walled) preventing any form of detrimental activities within the area. A 100 meter area from this enclosure, vide the AMASR Act 2010 is a Prohibited Area and a 200 meters thereon is a Regulated Area (within which is located the Buffer Zone) which authorizes the Archaeological Survey of India (owner of Property) to control land use pattern and manage development so that it is a value addition to the Property.



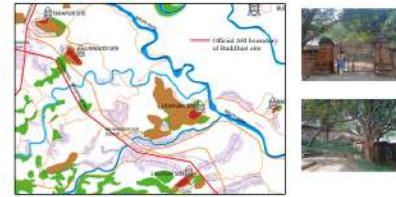
- Development beyond site is under the jurisdiction of following authorities,
- Tourism infrastructure - Department of Tourism, Govt. of ODISHA
- Water supply, sewerage, land-acquisition - District collector
- security and discipline - Chandikhol police station
- Highway infrastructure and maintenance - NHAI
- Approach road and settlement infrastructure - Gram Panchayat Neulpur/Krushnadaspur

STRENGTH OF THE SITE:

- EXISTING ROAD AND TRANSPORT INFRASTRUCTURE.
- ASI PROTECTED SITES WITH BOUNDARY.



The existing road network to the sites are good and well maintained. Two national highways pass nearby the sites connecting them to major cities like Paradeep, Bhubaneswar and Kolkata. Thus the sites have potential to grow given the promotion it needed.



The five sites chosen for study have devinite site boundaries marked by the ASI, thus are litigation free for any intervention inside.

POTENTIAL FOR HERITAGE-ECO-TOURISM



ISSUES AND THREAT ANALYSIS:

AT BUILDING LEVEL:

- Sculptures placed randomly with out any regard to movement plan inside monasteries and other structures, disrupts the visitor experience.



- Some of these structures like the rock-cut stepwell are not functional.



- Some structures have conservation work pending due to problems in material selection, sourcing, budgeting and budgetary problems.



- Important restoration work that may result in increasing the value is pending. Ex. The drainage channels of Udaygiri.



AT SITE LEVEL:

- The location, orientation and accessibility to museum and interpretation center is difficult for smooth crowd movement.



- Those sites not protected by ASI have severe security issues.

- The under excavation sites lack amenities and pathway.

- Lack of green cover at the newly excavated sites is a concern, in regards to the landscape. Along with that either the missing Bodhi trees or the Bodhi tree along with several other trees not recognized as a sacred grove, their lack of highlight is a concern as well.



- Lack of income generating hubs inside and outside the sites.

- Sillf edges not secured can be hazardous for children. Structure prone to accident like the step well do not have railings as well.



- Lacks amenities for pilgrims like prayer and chanting room hall, meditation shade, water at open to wash up before prayer.

- Many sites, including the later developed landscaping area used as pasture land by locals



AT REGIONAL LEVEL:

- Site management** : The sites that are not under ASI protection gravely lack any management. This creates problem with boundary demarcation, development regulation and conservation work.

- Excavation and protection** : Many of the excavated sites were abandoned without any kind of protection. Thus the sites are vulnerable to Looters and other nuisance creators. No proper plan for disaster resistance. The lack of documentation leading to improper restoration post hazard.

- Promotion on different levels** : The sites that are frequented by locals, few visitors across India and very minor number of international tourists. These sites severely lack infrastructure to actually promote international pilgrimage.

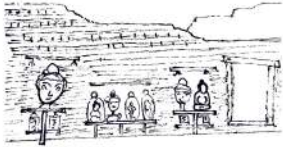
- Ecological and natural landscapes**: The landscapes of this region change drastically to meet the need for agricultural lands, excessive stone mining changing the flood plain. All these are impacting the authenticity in landscapes of these sites.

- Lacks off sensitization, funding and inclusivity**: One of the major issues with this sites is the lost connection site and locals. The expelled/migrated weaver community are still called " Buddha Tanti" (Buddha weavers), the locals from nearby villages see the sites as just one of many sources of income.

- Industrialization and its impact on river**: The river Brahmani and its tributaries are the major water source for many of the industries on its valley. But the irresponsible discharge of chemical into river has detreated its quality. Thus the region now depends on ground water. This has a bad impact on both the water table and soil.



STRATEGIES AND PROPOSALS:



DISPLAY DESIGN

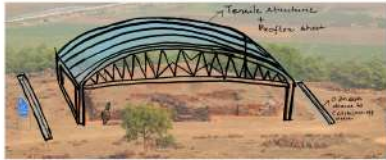
1. Proper display design in-situ for the sculptures kept inside the monasteries and shrines. This may include a conjectural reconstructed model of the structure itself for better understanding



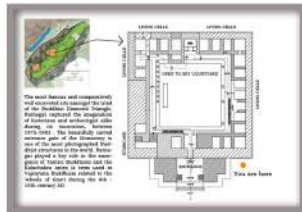
2. Un necessary interventions such as pumping water in and out of the rock cut step well to be stopped, and only made on the day before Buddha Purnima or may special religious occasion when the water is necessary. Top of the stepwell to be covered by transparent material and railings installed for security purpose.



AT BUILDING LEVEL



Preventive measures such as fencing, ditches and shades provided for under conservation structures.

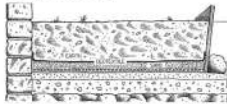


Proper guide map with reference imagery for better visitor movement.

1. LONG TERM EXPLORATION AND EXCAVATION PLAN:

- Step 1: Preparation of Base Map using latest tools techniques and technologies
- Step 2: Geo-prospecting Survey, LIDAR and Ground Penetration Radar
- Step 3: Mapping of the sub-surface archaeology overlap with Base Map
- Step 4: Preparation of Detail Archaeological Exploration Report prior commencement of work
- Step 5: Scientific Archaeological exploration and excavations as per the report

2. Re-burial of excavated sites that do not qualify for conservation work by ASI or any other Party



Among many ways of reburial sand-geo-textile and earth are the best combination for the region

5. Prepration of heritage master plan for 15 or more sites in the region.



2. The site can be connected to river Birupa to add scope of recreation.



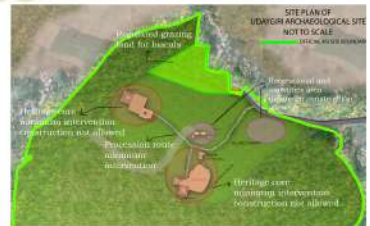
AT SITE LEVEL



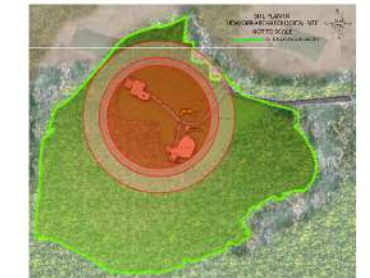
1. Protective installations and railings around the site near cliff areas. These railings can be designed with the impression of railings installed around a stupa that depicts different stories.



3. Dividing site into zones for control over development. Minimum intervention to heritage core includes, conservation and restoration work, addition of signage and other necessary installation, pathways and landscaping. The religious areas should have interventions keeping the sacredness in mind.



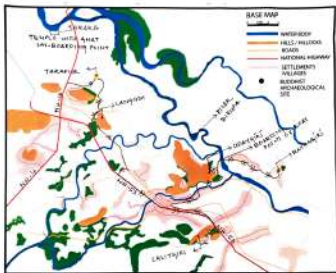
4. Dividing site into zones for control over development. Minimum intervention to heritage core includes, conservation and restoration work, addition of signage and other necessary installation, pathways and landscaping. The religious areas should have interventions keeping the sacredness in mind.



AT REGIONAL LEVEL



3. Extensive forestation in and around archaeological sites and river bank to re-create the past landscape.



Base map showing waterbody, hills forest and settlements. source: Author

4. Heritage Trail connecting the five sites through land and water.



Map showing Buddhist sites. Source: author

FOLLOWING ARE A FEW RECOMMENDATION THAT WILL BE APPLIED AT BOTH AREA AND REGIONAL LEVEL:

1. Identification and conservation of NATURAL AND LANDSCAPE HERITAGE
2. Further reserch on Buddhist landscape and its implimentation in developing archaeological sites.
3. Environmental - Quarrying is not to be allowed within 1km of the heritage zone as a general principle because it alters the natural land form.
4. Improper landuse and unauthorised construction: Like the allocation of land to industrial or mining projects should not be allowed nearby as it may hamper the ambience of the site and and experience of a person.

DESIGN INTERVENTIONS AT UDAYGIRI SITE AS A MODEL PROJECT:

Fallowing are the design interventions proposed to the UDAYGIRI archaeological site which will act as a model for any future Buddhist sites in need of development.

INTERPRETATION CENTER :

This will house the antiquities found at site and will explain the site and its significance through various models such as audio-visual, digital and live models etc. This will also accommodate all the amenities needed at the site.



OPEN AIR MEDITATION ZONE:

This will solve the issue regarding lack of space for pilgrims to have prayer.

It would be made of 1' high stone base to sit on with a symbol of Buddha in the center.



FOOD COURT AND KIOSK:



A food court will charter to the tourists and will be a source of income for locals.

Souviner shops may also be a part of it.

Lotus pond and Dharma pavilions :

Lotus has great significance in Buddhism and often depicted as a symbol of Buddha himself. Thus putting a lotus pond inside will add significance as well aesthetic value to the site. The pavilions and path surrounding the pond follows the Buddhist preaching of path to moksha.



STRATEGIES FOR ENHANCING THE EXPERIENCE OF THE BUDDHIST ARCHAEOLOGICAL SITE OF BRAHMANI RIVER VALLEY.

