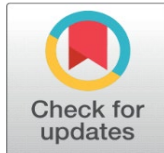
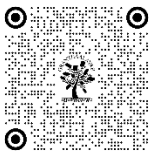


ADAPTIVE RE-USE OF HERITAGE STRUCTURE IN INDIA CASE STUDY – JATAN NAGAR PALACE, ODISHA

Arya Jaiswara ¹✉, Ruma Bhatt ¹, Deepashree Chowdhury ¹

¹4th year student, Piloo Mody College of Architecture, Sector 1, CDA, Cuttack - 753014, India



Corresponding Author

Arya Jaiswara,
officialarya0708@google.com

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ABSTRACT

India has a rich cultural heritage and among all the 29 states Odisha could be considered as the one with the most unexplored and interesting history. Its heritage is witnessed through the massive Kalinga architecture across the province. In the British Era a lot of palaces were abandoned or the Kings at the time were forced to move out due to the laws of East India Company. As a result, a lot of palaces were either left abandoned or were reinvented as government offices. But a lot of other factors were also in play for the reason of abandonment of these structures. The aim of this study is to focus on the reason of abandonment of such unexplored structure(s) or rather one structure in particular and how it could be revived while contributing in the growth of economical aspect of the region.

The Jatan Nagar Palace in Dhenakanal, Odisha is one out of many palaces in the state which has been left unattended form years. This paper explores the ways of conserving the monument while maintaining the integrity in context with its rich history. It is to identify various methods of preserving and conserving a heritage structure.

Keywords: Abandonment, Conserving, Maintaining the Integrity, Methods of Preserving

1. INTRODUCTION

For historic structures to be preserved, cultural heritage aspects must be correctly identified. This study analyses the potential for integrating image-based documentation methods with traditional documentation methods for the preservation and adaptive reuse of monuments. Architects and restorers can analyse various intricacies of the architectural history with the aid of architectural photogrammetry and pictorial photography, which makes it easier to evaluate heritage features. Field observations and historical study, however, are crucial resources for the appraisal process.

Combining the aforementioned methods, Umaid Bhawan Palace was documented. The spatial aspects and conceptions of the original architectural techniques and their variations can be experienced through full-scale drawings, 3D models, maps on altered picture mosaics, and image albums. Further redevelopment or expansion led half of the property serve as a resort and museum which further generated revenue.



Figure 1 Ummaid Bhawan Palce

Therefore, a perfect example to showcase how culture and heritage can be showcased by utilising old heritage structures and palaces to boost economy of a place through tourism. Dhenkanal a small town situated in Odisha where once ruled the Royal Family still owns half of the land in the province. A very old structure standing idle at the top of a certain hill (20.67646744216195, 85.61687214649288) on the outskirts of the city has a very interesting history and could be re-used or utilised the same as the Umaid Palace to further boost the economy of the Dhenkanal Province through tourism or reviving it as a place where locals could just visit to reach or explore the stories of their roots.

1.1. RESEARCH SIGNIFICANCE

The daily lives of common people or how society functions with context to our site i.e., Dhenkanal are not described in any writings, despite the fact that they are historically significant. In general, anthropologists, historians, and archaeologists are more interested in records that describe the daily activities of common people, such as what they ate, how they interacted with others in their families and social groupings, and what was going through their minds shows the condition of their livelihoods. With the use of this knowledge, we are able to comprehend and describe how particular communities operated throughout history.

The Greek ostraca serves as a superb illustration of a historical record created "among the common people."

Apart for documenting the old structures it is important to further convey the great story of the structure, the people associated with the structure and to evolve or restore it in such a way so that it still remains contextual with time, making the structure timelessly aesthetic.

1.2. RESEARCH QUESTIONS

- Why are historical documents important?
- How do you document historical buildings?
- What do you mean by historical documentation?
- Why do historic buildings need to be restored?
- Why was the historic building abandoned?
- How are old historic buildings damaged?
- What role does the state play in maintaining old structures?
- Why a certain structure should be renovated or redeveloped?

- How can the old structures be utilised to serve as a centre of information for the locals & increase the economic growth through tourism?
- How important is the redevelopment for adaptive re-use of an old historic structure with respect to the site context?

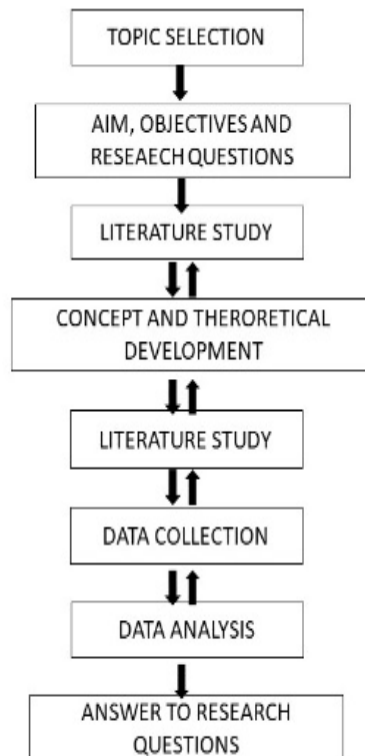
1.3. AIM

The aim of this implemented study is to allow us to produce and act as a credible source of information regarding the assigned building. To emphasize and highlight the history, cultural and design concept of the building. In depth and thorough research and interpretation in regards to the functionality and the construction techniques are to be documented into the report along with proposals to make the structure relatable and contextual with current times.

1.4. OBJECTIVES

- The objective of this study conducted is to create and be able to act as an authoritative source of information about the assigned buildings.
- Emphasize and accentuate the historical, cultural and design concept of the building.
- A detailed and thorough investigation and interpretation of features and construction techniques should be included in the report.
- A basic conceptual proposal for the renovation of the structure.
- Document the architectural and cultural significance of the JATAN NAGAR PALACE.
- Focusing on strategies that should be taken to preserve such structures and find solutions to the reasons for the loss of meaning and identity.

1.5. METHODOLOGY



1.6. CASE-STUDY DESCRIPTION

JATAN NAGAR PALACE -

Address: - Jatan Nagar Palace, Dhenkanal, Odisha - 759013

Contact: - 9437000005, Mr. Amar Jyoti Singh Deo (Yuvraj of Dhenkanal)

Minal Kumari Singh Deo (W/o Amar Jyoti Singh Deo)

Situated at the outskirts of Dhenkanal, Jatan Nagar Palace is currently considered as one of the most haunted places of Odisha. This is due to the Paranormal activities that has been witnessed by the locals or the people who interacted with the place. But all the paranormality is yet to be proven. Jatan Nagar Palace is a structure built with a purpose and has a great story to tell which is explored in the further chapters.

1.7. SCOPE AND LIMITATIONS

The study's scope includes end-to-end building measurements to provide precise measures for each location. Elevations of the interior and exterior are also required. This will assist with later construction development. To gather enough data about the building, a comprehensive survey of the structure is also necessary. The building's historical and cultural context, as well as the specifics of its construction, are all included in the study framework, which inadvertently leads to the documentation of architectural conceptions and objectives. Indirectly included by this research approach are the building's historical roles, uses, purposes, and typologies as well as how it changed over time to take on its current appearance.

Limitations and impediments are unavoidable but can be overcome by taking specific actions. Limited movement and accessibility around the measuring site building is one of the most difficult problems. Some of the structures that must be measured are too tall and challenging to enter. Additionally, it was impossible to measure too complicated ornamentation, thus several approaches were employed to cover up these problems. To provide more precise proportions and more proportional photographs of certain elements and decorations, images that were magnified to eye level were obtained and scaled down in AutoCAD.

2. LITERATURE STUDY

The site has been partially conserved for its historical significance. The majority of historic sites are designated as national historic sites and are legally protected.

In general, structures that have historical significance are classified as "historic value" buildings. Because of historical events, people in the present are inextricably linked to it. This value warrants taking into account while making planning decisions in this context. Therefore, the essence of these structures must remain intact with the course of time for it to remain contextual with the current scenario.

2.2. BACKGROUND STUDY

The historical and cultural legacy ingrained in a nation, area, community, or organisation defines its identity and serves as a reflection of the rich and varied human race. A group or society's intangible characteristics and tangible artefacts that have been passed down from previous generations, conserved in the present, and donated for the benefit of future generations is known as its cultural heritage.

35 kilometres from the seashore resort of Puri (Odisha) sits the 200-foot-tall Konark Sun Temple, a 13th-century temple with outstanding architectural details and decorations. Konark embodies the past of liberal Indian culture and has sensual themes like to those seen in the Khajuraho temples in central India. There are a number of abandoned buildings scattered around the complex; the ones that are still standing are magnificent examples of elaborate constructions.

The ideal way to see Konark is as part of the Orissa Route, which connects the historical temples of Bhubaneswar, the coastal regions of Puri and Gopalpur, the Buddhist caves of Ratnagiri, Kandgiri, and Udayagiri, and the tribal heritage sites. The Taj can be seen as a representation of a legacy whose history and construction have been meticulously

recorded and examined. Given that its application transcends many religions, it can also be viewed as a sign of unity in diversity. In light of these factors, the Indian government takes pride in protecting and maintaining its cultural legacy as a popular travel destination worldwide.

Just like Konark there are numerous old ancient structures that still stand among the current concrete towers and yet remain unnoticed. If these were to be restored and properly taken care of the heritage structures would then play a role of enlightening people with the stories it holds about their history and would also contribute in the economy of the area it's been restored in.

With not more than 60 kms from the capital of Odisha i.e., Bhubaneshwar is a small valley town Dhenkanal which had an interesting history as it was a major nodal point for the Britishers to access the heart of Odisha while controlling supplies from the outskirts. The Royal Family of Dhenkanal however played it wisely and never lose control of the province, Dhenkanal. Their assets are present all around the province and till date is being used by and for the locals. Several parks, forts and monuments are made, renovated and rebuilt under the conscience of the Royal Family of Dhenkanal over the course of time.

Geographical and Population details of the District			
Geographical Area :	4,452.00 sq.km	Area under Forest :	1654.96 sq.km
Population (2011 Census)	Total :		1,192,811
	Male :		612,593
	Female :		580,218
	Rural :		1,073,359
	Urban :		119,452
	Scheduled Caste :		234,079
	Scheduled Caste Male :		118,755
	Scheduled Caste Female :		115,324
	Scheduled Tribe :		162,056
	Scheduled Tribe Male :		80,878
	Scheduled Tribe Female :		81,178
	Population Density :		268 (Per sq.km)

Figure 2 Geographical & Population Data

Literacy Households		
Literacy & Households Details	Desc.	Value
Literacy	Total Literate :	829,910
	Literate Male :	464,093
	Literate Female :	365,817
	Total Illiterate :	362,901
	Illiterate Male :	148,500
	Illiterate Female :	214,401
Households	Total Households :	222,023
	Rural Households :	203,537
	Urban Households :	18,486
	BPL Households (2001 Census)	233,645
	SC/ST Households (2001 Census) :	81,178

Figure 3 Literacy Household Data

Administrative setup of the District			
Desc.	Value	Desc.	Value
No. of Sub-Divisions :	3	No. of Tahasils	8
No. of Municipalities/Corporation :	1	No. of N.A.Cs :	3
No. of Blocks :	8	No. of Police Stations :	15
No. of Gram Panchayats :	212	No. of Inhabited Villages :	1081
No. of Uninhabited Villages :	127	No. of villages :	1208

Figure 4 Administrative setup of the District (Odisha, n.d.)

2.3. RESTORATION TECHNIQUES FOR HISTORIC BUILDINGS

Early research is necessary to comprehend the non-renewable character of historic buildings, which is necessary for historic building repair and design. Through research and study, scientific analysis, programme comparisons, phased implementation, and application, it then develops a comprehensive design process for building restoration and reuse as well as modern design to conserve historic buildings. technique used in scientific research, which sets it apart from manual techniques.

Thus, it is imperative to preserve the human and social qualities of the region as much as possible in the design and restoration of historic structures and their environs, and to make sure that the development of commercial tourism and monument protection coexists peacefully.

The findings of aerial photography conducted in ancient cities are printed on atlases and used as documentation for documenting the present, providing crucial proof for the building, standardisation, and documentation of ancient towns. Among them are a few fundamental ideas for fixing design flaws. The least amount of intervention, which is to minimise changes to the original structure while enhancing the conservation and preservation of authenticity.

- Monument Protection Technology

•Utilization of computers to compile historical building methods and settlement archives. It will boost efficiency by compiling a database of significant information on towns, squares, ruins, sculptures, vibrant paintings, and landscapes. A sub-draft will be prepared concurrently by the planning departments of a few large and medium-sized cities. Urban regeneration plans worldwide are using 3-s technologies (GI S, GPS S, and R) more and more these days. Specifically, the creation of urban spatial information systems through the use of urban geographic information system technology, the widespread application of 3S technology, the restoration and design work of individual buildings, ranging from static protection to dynamic protection, and the restoration of ancient cities of old structures. Digitization of the updated information conversion procedure.

•Technologies for restoring historic buildings. Restoration of historic buildings is making use of technologies from the electrical and industrial sectors, like programmed machine tool machining, cloud bitmap location, simulated imaging of electronic frequency reversal operations, and novel synthetic materials.

•Utilize technology and environmental protection facilities in the building environment. Random monitoring is done, and a thorough treatment plan is suggested.”

(School of Architecture and Art, 2020)

- Renovation of Masonry Structures

“Repair Method: As a structure with significant historical significance, the wall's damage state must be assessed prior to usage. Indeed, and it cannot be fixed by methods of cleansing and strengthening. The exterior wall is constructed by cleaning the surface, removing any damaged bricks, and then re-sewing in new ones. The replacement bricks' substance is crucial. The brick could be considered as the best material but is insufficient.

Pick a different stone if the original isn't accessible. The durability, compatibility, and look of replacement bricks should match those of bulk building bricks. Because the historic Neumann building's brick sizes are typically irregular, unique, handmade bricks are needed. To set the stage for the eventual discovery and fabrication of substitute stones, we must examine the stone's composition, firing temperature, colour, and other characteristics. Another term for complete replacement of quarry stone is inlay (or ditch). When the structural integrity of the stone is compromised, the

replacement stone experiences degradation or damage. Localized deterioration of the removed and replaced stone is also referred to as inlays. A brand-new stone may have an abrupt visual impact, but the original may be more fitting."

(Horseen, n.d.)

Reason for Restoration

"In addition to architectural innovation, maintaining and restoring historic structures is crucial since these venerable monuments provide as a window into our past. People who have lived in different eras and with distinct cultures and traditions are helped to be understood and respected by them. That makes it easier for us to comprehend how it came to be in this state. The city that reflects them is portrayed by its old structures. In addition to reflecting social progress and conflict, wars and other changes in the city's history have also shown changes in the city's economic situation. Attracting tourists in particular, people who like to feel the "soul of the city" that permeates the buildings. Even in the event that the historic structure draws tourists, this will surely result in economic boost.

Historic structures provide us with cultural context, enabling us to comprehend the events of the past, the people who came before us, and other customs is encouraged. Ancient artefacts are a vital part of our culture, helping to preserve our history and sense of identity as a distinct people enhancing the charm and character of the communities where people reside. From an environmental perspective, it's critical to construct energy-efficient, new green buildings, but it's also simple and environmentally beneficial to convert existing structures to become green. Additionally, maintaining historic structures can be seen of as a type of recycling that lowers trash generated during construction and conserves energy required to produce and ship tools, equipment, and building materials." (IEREK, n.d.)

2.4. INFERENCES

The separation of restoration from practise is currently the biggest issue facing India's historic building protection and restoration efforts. This tendency is likely to persist despite ongoing advancements in theory and technology. The issue arises from the fact that restorative theory finds it challenging to appropriately direct practise through standards. To be more exact, there are too many options and too many sharp edges when it comes to the goal of protective repair, the protective repair concept, and the application of repair techniques.

Methods from philosophy and other disciplines ought to be applied, and problems should be solved. Thus, value theory and evaluation as a concept and methodology are the only ways to create a highly functional preservation and restoration system for historical buildings. First off, historic buildings are valuable not only historically but also culturally, scientifically, and emotionally. Without a distinct border or an explanation of why these values belong in grey area, the borders are ambiguous, making it difficult to see how these values can be fulfilled under the presumption of protection.

3. LITERATURE STUDY

This study is designed to explore the historical significance of deserted area of Odisha in India. The town of Dhenkanal and its fort, in especially the JATAN NAGAR PALACE, which was formerly the province of Raja Sankar Pratap Singh Deo, are the primary subjects of this study. This study uses a mixed methodological approach and is exploratory in nature.

3.1. LITERATURE STUDY

The purpose of the literature study was to address the following queries:

- The Historical Background of the Structure.
- How the architecture and construction techniques were taken into consideration at its time of erection?

The sources for the references came from several thesis projects, the internet, and textbooks. It has been discovered that knowledge about a place's past is necessary to establish a connection with its roots. All of Dhenkanal's palaces are under the exclusive curatorship of the province's living heir. To reacquaint people with the atmosphere of bygone eras, it is crucial to preserve or revitalize a location's heritage sites. This will assist people in realizing the significance of their presence in both culture and history.

- **Primary Data Collection**

The location of the palace is in Odisha's Dhenkanal district. The palace is surrounded by beautiful views of the city line and mountains because it is perched on a hill. For the past sixty to seventy years, the site has been abandoned. Situated 200 feet above the earth's surface. King Narasingha Pratap Singh Deo, the brother of Raja Sankar Pratap Singh Deo, constructed it. The palace was built with thirty rooms specifically designed to accommodate the King's leisure needs. The closest train station is located 6 km away from the location, and the closest bus stop is only 5 km away. The location is 70 kilometers from the closest airport.

- **Photo Documentation**



Interview Description

Interviewee Description – A. K. Dalai (Care-taker at Satya Sagar Water Park, Dhenkanal)

Mobile – 7609884471

Udyalin Mishra (Local Resident of Dhenkanal)

Mobile – 7815000257

Minal Kumari Singh Deo (Spouse to the Prince)

Mobile – 9437000005

Interview Question

- Your Name?
- Occupation?
- Historical background of Jatan Nagar palace.
- Current owner of the property.
- Current condition.
- Daily Visitors.
- Significance of the palace with respect to the current political influence.
- Myth and Facts about the Palace.

- Reason for abandonment of the Palace.
- Contact Details.

Data Analysis

The structure of Jatan Nagar Palace needs a revival or revitalization as the area has potential to attract tourists and contribute to the moving economy of Dhenkanal. All the data retrieved from conducting site visits and interviewing the locals led to a conclusion that the Palace has been abandoned from a long time and the space can be used for a greater purpose since the locals do visit the place time to time as it serves the most scenic view of the province.

Finding and Answers to Research Questions

1) Why are historical documents important?

Heritage buildings are old buildings that have endured disasters and the test of time to convey the tales of this city's architectural facts, tales, and beautiful past.

Historic structures are always fascinating and can provide valuable insights into the past. A heritage is something that has historical or cultural value, something that can be passed down through the generations, and something you wish to acquire or restore. Cultural legacy is defined as "things" or sections of real estate, structures, or places that are able to be owned and "traversed." It is crucial to define heritage using this historicity-based method. Heritage not only has sociological and cultural implications, but it also clearly reflects history. For a number of reasons, it is pertinent to the current afterlife repackaging and should be regarded as a deviation from record keeping.

These days, architecture is highly significant. In order to protect legacy, UNESCO World Heritage has identified a number of ancient monuments that require the highest care and expertise to restore. Regarding the preservation of these historic buildings and structures, there are differing views. Some people think that because it takes a lot of time and effort to restore old buildings, it makes perfect sense to restore the same structure while adding fresh features.

2) How do you document historical buildings?

"The historical background, historical context, and alterations to a building's shape and function over time are the main subjects of the Historical and Archaeological Documentation data category. This aids in the comprehension of the building's history and its surrounding environment by archaeologists and historians, as well as the improvement of their knowledge of the architectural philosophies and styles, construction methods, building materials, and structural systems of the building's time. materialise and establish a connection. It also demonstrates the various roles the building had during its existence and how it operated".

(Springeropen, n.d.)

3) What do you mean by historical documentation?

"The first step in resolving any issue pertaining to architectural heritage is the documentation of architectural monuments. In order to provide a precise digital representation of the building, the documentation process necessitates the gathering and analysis of a wide range of data, both quantitative and qualitative. This type of data gathering and interpretation is frequently carried out independently by several stakeholders for various goals, which leads to a lack of communication, duplication of effort, and inconsistencies across various data types".

(ScienceDirect, n.d.)

4) Why do historic buildings need to be restored?

"While architectural innovation is certainly vital, maintaining and restoring older structures is also crucial because these historic monuments provide as a window into our past. They aid in our ability to comprehend and appreciate others who have lived in various eras and with various cultures and traditions. The reason why cities, civilizations, and even customs have evolved into what they are today can also be attributed to the existence of ancient ruins. It enables us to see societal shifts and gain a deeper understanding of how the city has changed over time. Old buildings serve as the city's face, mirroring social progress, wars, and conflicts among other things, as well as changing economic circumstances.

Although it is simpler and less expensive to build new structures than to preserve existing ones, there are numerous benefits to keeping our cities' historic structures intact. It draws tourists, particularly those who are interested in witnessing the city's "soul" embodied in its architectural design.

Bringing tourists to the historic structures will undoubtedly boost employment opportunities for residents and advance the city's economy. Therefore, the preservation of historic structures creates jobs for county specialists as well as locals. and promotes honouring the lives of the deceased and other customs- Preserving ancient monuments plays an important cultural role in fostering our heritage and pride in our past, which makes us unique in the world.

In terms of the environment, it's crucial to create new, energy-efficient, green buildings, but it's also simple and environmentally beneficial to renovate existing structures. Additionally, maintaining historic structures can be seen of as a type of recycling that lowers trash generated during construction and conserves energy required to produce and ship tools, equipment, and building materials".

(Karwaan, n.d.)

5) Why was the historic building abandoned?

"Jatan Nagar Palace was built with the purpose to fulfil the King's recreational needs. Although somehow when the building was in the process of erection, the King lost his interest towards the process. Therefore, he cancelled the project mid production and since then the Palace has remained abandoned for almost about 70 years".

(OrissaPost, n.d.)

6) How are old historic buildings damaged?

"There are many possible reasons. For security or economic reasons, there may be structural problems that cannot be resolved or are practically impossible to restore. Structural defects may have existed from the beginning, or they may be the result of damage or neglect (earthquakes, in particular, have caused buildings to move on their foundations and become truly irreparable and demolished). famously must). Not all buildings can be completely rebuilt".

(ScienceDirect, n.d.)

7) What role does the state play in maintaining old structures?

"The government imposes stringent regulations on what may and cannot be done with historic structures in order to conserve them. Buildings have a lengthy history, might have multiple owners, and sometimes owners want to rebuild or rehabilitate a building rather than demolish it. There should always be precautions made to keep the building safe.

First, a list of significant or significant structures is compiled by the state or provincial organisation in charge of protecting a location's structures. Strong laws and punishments are required to safeguard and enforce this list. This guarantees that because the property is fixed, this kind of building won't be bought or destroyed. Secondly, it is necessary to choose an organisation to oversee the upkeep and repair of these structures. An expert in historic building architecture can be hired to create a "guide" outlining what can and cannot be done.

This manual functions as a check list for suggested future research. You can provide guidelines like "use certain bricks to repair damage" or "don't modify existing ceilings." You should include this in the application procedure for your building permit. Violations should result in harsh punishment".

(Adaptive Reuse of Historic Buildings towards a Resilient Heritage)

8) Why a certain structure should be renovated or redeveloped?

Any structure which has turned old or has lost its eminent presence over time must be revived so that it could convey the true story of the location it is situated in. It could also play a vital role in the economic boost of a region which is remotely reachable.

9) How can the old structures be utilised to serve as a centre of information for the locals & and increase the economic growth through tourism?

The Old Structures or Heritage Structures hold a certain cultural value which is passively connected with the stakeholders and people involved with the structure in some way or the other. In order to keep the cultural significance alive this historical structure must also actively adapt with the context of the site. Therefore, the structure could be considered to be remade as a public interactive space, a museum or simply revival of it as it was earlier through various conservation methods.

10) How important is the redevelopment for adaptive re-use of an old historic structure with respect to the site context?

The redevelopment for adaptive re-use of an old historic structure is highly important, and considering the site context is a crucial aspect of this process. Here are several reasons why site context matters in the adaptive re-use of historic structures:

•Cultural and Historical Significance:

Historical and cultural significance can often be found in the site setting, which should be honoured and incorporated into the reconstruction. Determining how to conserve and present the site's legacy might be aided by knowledge about its past.

•Architectural Harmony:

Architectural harmony is ensured by integrating the historic structure with its surroundings. The site's and the building's original characteristics should be preserved while the new usage blends in with the current setting.

•Zoning and Regulations:

Zoning laws, construction codes, and other legal considerations are also part of the site environment. For a redevelopment project to be successful, compliance with these standards is necessary, and knowing the site context facilitates negotiating these requirements.

•Environmental Impact:

Consideration should be given to the environmental context, which includes elements like climate, topography, and neighbouring natural areas. The integration of sustainable design principles can effectively mitigate the environmental consequences of the renovation.

•Community Engagement:

The local community is a part of the site setting. Participating the local community in the reconstruction process guarantees that the project satisfies the demands and preferences of the local workforce as well as fostering a sense of ownership.

•Economic Viability:

It's essential to comprehend the site's economic background. To ensure the project's long-term viability, factors like the local economy, market demand, and possible economic benefits of the reconstruction should be taken into account.

•Infrastructure and Accessibility:

Two crucial factors to take into account are the site's accessibility and current infrastructure. The success and effectiveness of the renovated structure are enhanced by making sure it is easily accessible and well-connected.

•Adaptive Re-use Challenges:

Every historic building has different issues depending on the site setting. Comprehending these obstacles facilitates the development of adaptable solutions that maintain the structure's historic significance while fulfilling modern requirements.

•Aesthetic and Functional Integration:

When an adaptive reuse project is done well, the old building is both aesthetically and functionally seamlessly integrated into its surroundings. The best design and functionality must be chosen after a thorough examination of the site's environment.

In conclusion, the process of redeveloping an ancient historic structure for adaptive reuse needs to be careful and attentive to the surrounding circumstances. Architects, and planners can design projects that honour the site's past while also addressing the requirements of the present and the future by taking the site context into consideration.

Further Recommendation

•Preservation Guidelines and Policies:

Creating thorough rules and procedures for Dhenkanal-specific preservation can be a good starting point. These regulations ought to provide a clear foundation for upcoming adaptive reuse initiatives by striking a balance between the preservation of historic buildings and the changing needs of the local community.

•Capacity Building and Skill Development:

It is essential to support local skill development and capacity building in order to maintain cultural preservation initiatives. It is suggested that traditional construction methods be trained for, so that the surrounding communities are prepared to take an active role in the processes of preservation and adaptive reuse.

•Heritage Tourism Promotion:

Proposing methods to take advantage of historic tourism can help make adaptive reuse projects financially sustainable. This entails designing immersive experiences, explanatory areas, and guided tours to highlight the heritage structures' cultural and historical relevance.

•Public-Private Partnerships:

Promoting public-private collaborations has the potential to improve adaptive reuse project management and finances. Suggestions may include models of cooperation between public agencies, private businesses, and regional communities in order to guarantee a long-term and cooperative strategy for preserving cultural assets.

•Monitoring and Evaluation Framework:

A strong monitoring and evaluation system must be established in order to evaluate adaptive reuse initiatives' long-term effects and efficacy. Key performance indicators, regular assessments, and feedback systems are a few examples of recommendations that could be made to further develop and enhance the adaptive reuse process.

3.3. ETHICAL CONSIDERATIONS

Three prominent ethical paradigms for heritage conservation—paternalistic, multicultural, and patrimonial.

Ensuring responsible and sustainable methods in design requires careful consideration of ethical issues in heritage conservation structures. The most important thing is to adhere to the authenticity concept, which is to respect and preserve the structure's original materials, original design, and cultural value. Ethical architects aim for the least amount of intervention possible, choosing suitable and reversible restoration techniques over radical changes.

One very important ethical aspect is community engagement. Local communities must be included in the decision-making process, and architects must value their opinions and recognise the cultural narratives ingrained in historic buildings. A process of conservation that is inclusive and respectful of all viewpoints is guaranteed by equitable representation.

An additional ethical consideration is environmental sustainability. Eco-friendly methods should be incorporated into heritage conservation, encouraging energy conservation and reducing the negative effects of interventions on the environment. Architects are required to manage the conflict between preserving historical significance and modifying buildings for practical purposes.

Last but not least, ethical heritage conservation is aided by transparency in decision-making, compliance with regional and global conservation charters, and a dedication to long-term preservation. Architects contribute significantly to the preservation of cultural heritage and the promotion of a responsible and respectful link between the past and the present by following these principles.

4. DATA COLLECTION

The following are the data obtained by performing site visits and detailed research over the topic. All the data provided in this research paper are at their truest form collected from ground level.

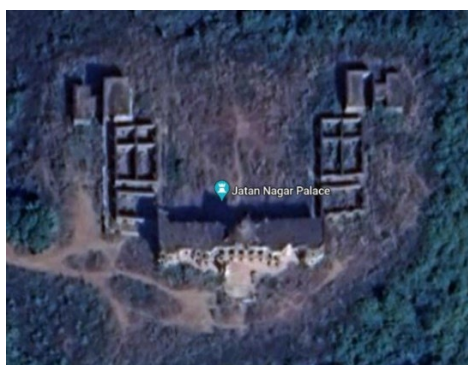


Figure 5 Satellite Image of Jatan Nagar Palce

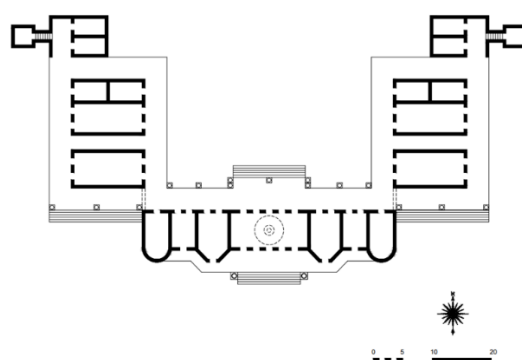


Figure 6 Plan of Jatan Nagar Palace

Interview of A.K Dalai

The essence of this interview focused on the historical background of JATAN NAGAR Palace. The Palace is believed to be abandoned from past 70 years. It was constructed for the king to somehow get a glimpse of his queen who was then residing in the main palace. He believed that with a series of strategically placed mirror might help him fulfill his desire. Somehow this was not possible due to the lack of proper technologies at the time. Since then the palace has been abandoned.

The palace has around 30 rooms to serve the royal family. It was made for the King to serve his recreational purpose. Currently the palace has been bought by some private entity who is willing to revive the essence of the palace by developing a tourist attraction there.

Interview of Minal Kumari Singh Deo

This interview was a brief yet a short one which brought upon the current financial condition of the powers looking after the palace. The reason for the royal family to sell the palace was to boost tourism in the province of Dhenkanal. The funds would later be invested for the welfare of the locals. The Government also plays an important role in providing aid with the legality of the process regarding the transaction of the property since all our working in unison for the betterment of the people.

Case Study

Jatan Nagar Palace

Address: - Jatan Nagar Palace, Dhenkanal, Odisha – 759013

The site is located at the Dhenkanal district in Odisha. Being situated at a hill top, the palace is surrounded by scenic views of the mountains and the city line. The Site has remained abandoned from last 60-70 years. It is situated 200 ft.

above the ground level. It was built by Raja Sankar Pratap Singh Deo's brother Pattaya Nrusingha Pratap Singh Deo. The palace consisted of 30 rooms and was constructed for the purpose to serve recreational activities for the King.

The nearest bus stop is just 5 kms away from the site and the nearest railway station is 6 kms away. The site is 70 kms away from Nearest Airport.

5. CONCLUSION

Overall, the research, questionnaires, and site surveys came to an end with the results that are attached to this survey. The entire procedure took a while, but it was fascinating. There were several obstacles I had to overcome while conducting my investigation. For instance, how to differentiate between myths and reality. Obtaining data from sources and using it like I intended was another matter. This research includes a quick overview of the historical background of Jatan Nagar Palace and factual corrections from the locals, summarizing the full report. Overall, the conclusion notes that the information in this paper is adequate to provide the reader with an overview of the Jatan Nagar Palace in Odisha and a summary of India's lost heritages and the reasons why it is crucial to conserve such buildings.

5.1. DESIGN PROPOSAL

The research also proposes to rebuilt the entire structure without losing its originality into a museum cum experience zone where the history of the Palace throughout the timeline is being displayed in context with Dhenkanal. A performance area to conduct cultural events and multiple viewpoints to provide a good view of the entire province. This in turn will generate revenue for the governing bodies of the province and shall contribute to the economy of Dhenkanal.

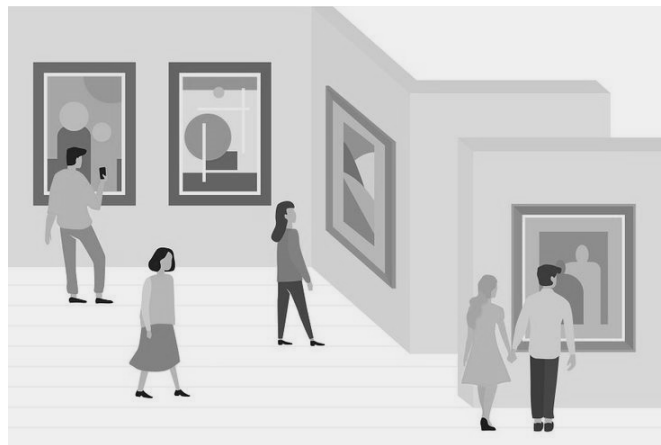


Figure 7 Illustrative representation of the walkway museum

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

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The source of this Research paper has been taken as bits and pieces from various Journals and Documentation from all across the Internet.

"World Heritage Site – Why Preserve, Conserve & Protect?"

by Economic Times INDIA.

"UNESCO World Heritage Sites of India – South & East INDIA"

blog by HOLXO

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journal by Shikha Jain & Rima Hooja

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