



## "Tracing Colonial Footprints: A Study of Jyotir Bosu's Heritage Houses in Barodi, Narayanganj"

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### ARTICLE INFO ABSTRACT

The historical houses of Jyotir Bosu in Barodi, Narayanganj, are significant remnants of the colonial past that reflect the socio-political landscape of Bengal during British rule. This research paper delves into the architectural marvels and cultural legacy of these homes, which stand as witnesses to the evolving political ideologies and social transformations of the time. Jyotir Bosu, a prominent political figure and revolutionary, played a key role in Bengal's political history, and his residences have become symbols of resistance and intellectual discourse. Through fieldwork, archival research, and interviews with local historians, this study seeks to unravel the hidden narratives embedded in the colonial architecture of Barodi. The paper explores the intricate fusion of European and local design elements in the houses, highlighting how the architecture reflects the tensions between colonial influence and indigenous identity. It also examines the role these structures played in the socio-political movements of the early 20<sup>th</sup> century, with a special focus on their connection to the anti-colonial struggle and the birth of Bengali nationalism. By offering a glimpse into the life and legacy of Jyotir Bosu, this research not only celebrates a rich cultural heritage but also underscores the importance of preserving such historical landmarks. The study contributes to broader discourses on colonial history, heritage conservation, and the intersection of politics and architecture in Bengal.

**Keywords:** Colonial Buildings, Built Heritage, Ancient Capital, Morphological Development, Historical Jyotir Bosu House.

### 01. Introduction

Barodi is a remote village belonging to the city of Narayanganj, the princess of fairy tales known as the dandy of the East. This region belongs to the then capital Sonargaon. The structures still stand proudly in this place

with many living witnesses of the colonial period. A case in point, a notable asset of Bengal is Jyoti Bose's house. Jyoti Bose is one of the proverbial men of Indian political history. Although an important part of his life was spent in other Bengal, his roots are rooted in this Bengal. **His family also retained ancestral lands in Barudi where Jyoti Basu is described to have spent part of his childhood.** [01] The architectural techniques and political narratives of his Basat Vita are intertwined in a way that shapes the cultural and socio-political fabric of the Bardi region. This paper primarily explores the colonial legacy of this establishment and uncovers the stories and lifestyles behind its creation. It is like a rearranged Halkhata. By examining ancient architectural styles, architectural elements and practices (which exist in some houses), the study sheds light on how the colonial power left an indelible mark on Bardi's landscape. Furthermore, the research will highlight the ways in which these houses stand as symbols of resistance, tradition and transformation, offering invaluable insights into the history of Bengal's colonial experience and its lasting impact on the region's modern-day identity. **The builder of the house is said to be Karta PanchuOstagar.** [02]



Figure Shows::Present Conditions of Jyoti Basu House. Photography by, Authors

#### A. Appellation of Colonial House

**The art and architectural style of Bengal has been rich and magnificent long before the British came to rule.** [03] The period of 190 years from 1757AD to 1947AD [04] is the colonial period of Bengal. During this period, a different style and trend of architecture was introduced which is called colonial houses. This architectural style was primarily influenced by European settlers in the Americas and other colonial territories. At that time this contains a milestone outline. Compared to other structures of the Sultanate and Mughal period, the architecture of the colonial period has undergone a lot of changes and development. These are just expressions of European aesthetics. **The famine devastated the region as well as the economy of the East India Company, forcing them to rely on subsidies from the British government, an act which would contribute to the American Revolution.** [05] Which together with Bengal's own architecture composes a new chapter? This architecture has become permanent for a while. This represents the legacy of European permanent architecture. **Thereby, a new hybrid style emerged known as the Indo-British or the Colonial style.** [06]

#### B. Peculiarity of Colonial House In This Bengal



Figure Shows:: Features of Colonial House In This Bengal, 3D Development by, 4<sup>th</sup> Authors

Several architectural and aesthetic features are prominent in the colonial buildings of Bengal. Colonial Kuthibaris are mainly square or rectangular in area. **Colonial period by the middle of the eighteenth**



century the British east India Company had established a dominant influence in Bengal. [07]Symmetry, the most common feature of architecture, can be seen in this structure which is not seen anywhere else. Its defining features include an equally numerous set of doors and windows, the use of balconies, the addition of decorative cast iron railings on balconies and porches, the recurrence of wooden shutters on the lintels, the appearance of numerous decorated columns and pillars, gable roofs, geometric designs on the parapets. The architectural material is often made of bricks. This structure is covered with red brick. So that apart from brick, wood and cast iron exist. Inside the building, the stories of the house are quite fascinating. It can be seen in the yard of each house. That keeps the surrounding masses organized. A central hallway bisects the interior, which in turn has rooms on either side. The use and application of high ceilings, wood floors, and detailed moldings are typical features inside. The interior and exterior of the structure reflect a mix of European and local architectural influences. Its timeless grandeur, welcome and aesthetics are connected.



Figure Shows:: Documentation of Jyotir Bosu House:: 3D Visualization.

Innumerable colonial establishments are scattered in this Bengal and West Bengal. 200 years of the colonial period have passed. Yet for so long its depth and richness have not faded. The city of Kolkata in India is a vast enclave of colonial architecture. Our Dhaka city is not far behind in this regard. Narayanganj and Nawabganj belonging to Dhaka are a collection of colonial architecture. **Panam comprises 52 buildings, consisting of two- and three-storey structures facing one another. Of these, 31 are situated on the northern side of the street, whilst 21 are on the southern side.** [08] [09] In Munshiganj's Mirkadim town, there are 24 houses with colonial flavor in every corner. Many such structures can be seen in ancient Vikramপুর. **Nagar Kashba is one of the 37 Kashbas in Bangladesh, though there are hardly any visible remains of the Muslim period now.** [10] These Kasabs are surrounded by historical structures and appreciated. Most of which are colonial mansions. Colonial houses, characterized by their elegant symmetry and traditional designs, are the architectural gems of the colonial era. Many such establishments are scattered all over the country. Various Kuthibaris, Rajbari, Governor's House, Grand House, Neoclassical design, Zamindar Bari are all included in the colonial architecture. In that direction, the two Bengals are rich in precious gems.

## 02. A Historical Background of Jyotir Basu & His Houses at Bengal

Jyotir Basu, a prominent Bengali industrialist and landowner, played a significant role in shaping the socio-economic landscape of Bengal during the British colonial period. **Born in the late 19th century** into a wealthy zamindar family, he inherited vast lands and estates, primarily located in Barodi, Narayanganj. [11] Basu's influence extended beyond land ownership; he invested in local industries and fostered educational initiatives, establishing himself as a progressive figure in the region. He was deeply influenced by the socio-political currents of the time, including the nationalist movements emerging in response to colonial oppression. Through his economic ventures, Basu contributed to the development of infrastructure and trade within his locality, which helped cultivate a growing consciousness of self-reliance among the Bengali population. His legacy remains imprinted in Barodi through heritage buildings, which serve as enduring symbols of a transitional period in Bengal's history under colonial rule. **His family also retained ancestral lands in Barudi where Jyoti Basu is described to have spent part of his childhood.** [12] Jyoti Basu was an Indian Marxist theorist, communist activist, and politician. [13] The

family's ancestral homes, known for their distinctive architectural style, stand as a testament to the opulence and cultural blending of the period. Barodi, a historically significant region in Bengal, was influenced by the British colonial administration, which introduced new architectural trends.



**Figure Shows:: Documentation of Jyotir Bosu House:: Realistic Visions vs 3D Visualization.**

The houses of Jyotir Bosu were built following a fusion of traditional Bengali elements and European neoclassical styles, reflecting the colonial ambition to impose Western values while maintaining local influences. These homes, adorned with intricate woodwork, wide verandas, tall columns, and ornate windows, exemplify a style that was prevalent among the affluent Bengali families of the time. The grandeur of these houses symbolized not only wealth but also the social status of the families residing in them. The socio-political environment during the British Raj played a pivotal role in shaping the legacy of these houses. As a Zamindar, Jyotir Bosu's family collected revenue from local tenants, which allowed them to build magnificent homes that were used for various purposes, including administrative activities, social gatherings, and the celebration of local festivals. The houses were also cultural hubs, where intellectuals, artists, and political leaders gathered to discuss the changing dynamics of society, politics, and the freedom movement. Following India's independence in 1947, the role and significance of such Zamindari estates diminished as land reforms and political changes transformed the socio-economic landscape of Bengal. Many of these historic homes have since fallen into disrepair, though some remain preserved as cultural heritage sites, offering visitors a chance to connect with the past. Today, the houses of Jyotir Bosu in Barodi stand as silent witnesses to an era of colonial power, cultural exchange, and the socio-political complexities of early 20th-century Bengal. Their architectural beauty and historical importance make them valuable not only as heritage structures but also as symbols of the region's rich cultural history. **The Barudi home of Basu was later turned into a library after his death, reportedly on his wishes. [14]**

### 03. Research Methodology

The research methodology for this study focuses on exploring the architectural and historical significance of the houses of Jyotir Bosu in Barodi, Narayanganj, as a colonial legacy. A qualitative approach has been employed, relying on both primary and secondary data. Primary data were gathered through – (01) Site Survey, (02) Documentation, (03) Photographic Documentation, (04) RS Analysis and (05) Interviews (Local People). Local People teams included historians, residents, and architectural experts. The interviews provided insight into the social, cultural, and political contexts surrounding these colonial-era structures. Secondary data were collected from historical archives, literature, and previous studies related to colonial architecture in Bangladesh. A comparative analysis was conducted to examine the unique features of Jyotir Bosu's houses in contrast with other colonial buildings in the region. This methodology enabled a comprehensive understanding of the architectural heritage, its preservation status, and the legacy it represents in post-colonial Bangladesh. Ethical considerations were followed, ensuring informed consent from all participants.

**A. Study, Survey & Documentation:** The site survey, along with the literature review, was predicated on finding the activities that actually constitute the most important physical attributes. Such information can be found in books, journals, historical magazines, encyclopedias, as well as through credible online resources sought to establish information about the research. This is probably true compared to the photo-documentation and easy physical identification of the surviving structures. In the case of Jyoti Bose's house the authors have captured photographic documentation and in addition made some selected drawings/drawings modeling the required three-dimensional perspective of the building based on field studies conducted in 2006, 2009, 2018 and 2024.

**B. Comparison and Analysis:** An intend of this research study is to provide relevant insights for the preservation of the exterior and interior design, aesthetics, quality assessment, conservation and restoration of the oriental architecture. The main steps of methodology of studies are as follows:

- Observe the elements and architectural features of Existing Jyotir Basu House.

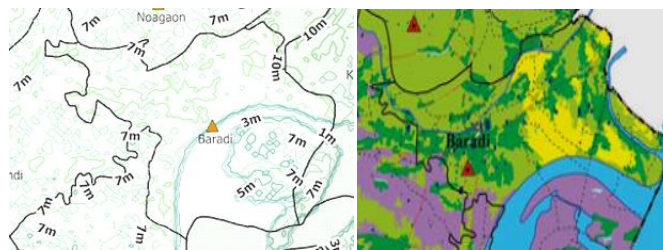
- Analyzes the existing plan with reference to image, function and construction detail and find the original layout.
- Compare those elements according to colonial Architecture

**C. Limitations of the Study:** There are several limitations to this study. These include reliance on a limited amount of historical records, gaps in oral histories, and limited access to particular property.

#### 04. Colonial Footprints and Their Socio-Cultural Impacts

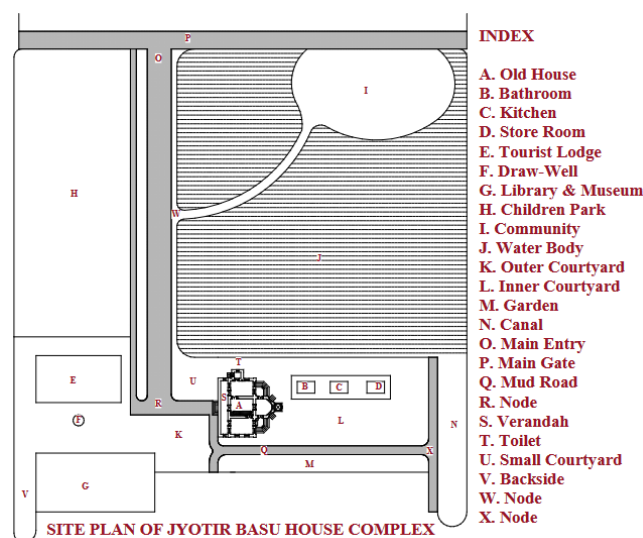
A Colonial Legacy at Barodi in the Narayanganj district of Bangladesh holds a unique position in the country's colonial history, with its rich architectural heritage offering glimpses into an era gone by. Among these treasures, the houses of Jyotir Bosu stand as remarkable specimens of colonial-era architecture that blend European styles with local influences. These houses, located in the tranquil countryside, are not just remnants of a bygone era but are also repositories of historical, cultural, and architectural significance. This article explores the distinct architectural features of the houses of Jyotir Bosu, shedding light on their colonial legacy. **Colonists frequently built houses and buildings in a style that was familiar to them but with local characteristics more suited to their new climate. [15]**

**A. Location of Jyotir Basu House:** Jyotir Bosu's house, a significant colonial legacy, is located in Barodi, a small village in the Narayanganj district of Bangladesh. It is located just 25 km north-east from the capital city of Dhaka.



**Figure Shows:: Contour Map, Land-Use Map and Location Map of Baradi**

The house stands proudly as a reminder of the rich history of the region. Here, surrounded by greenery and reflecting the elegance of the colonial era architecture, one is repeatedly lost in the sight. The area is accessible by road, and the house remains an attraction for those interested in historical heritage and the life of influential figures from Bangladesh's past, such as Jyotir Bose, a prominent political leader. **Especially after Basus death in 2010, the place has being highlighted. Bangladesh government willingly made a memorial library which is maintained under District Administration. The seminar hall can be rent by the local people paying a small fee on daily basis. [16]**

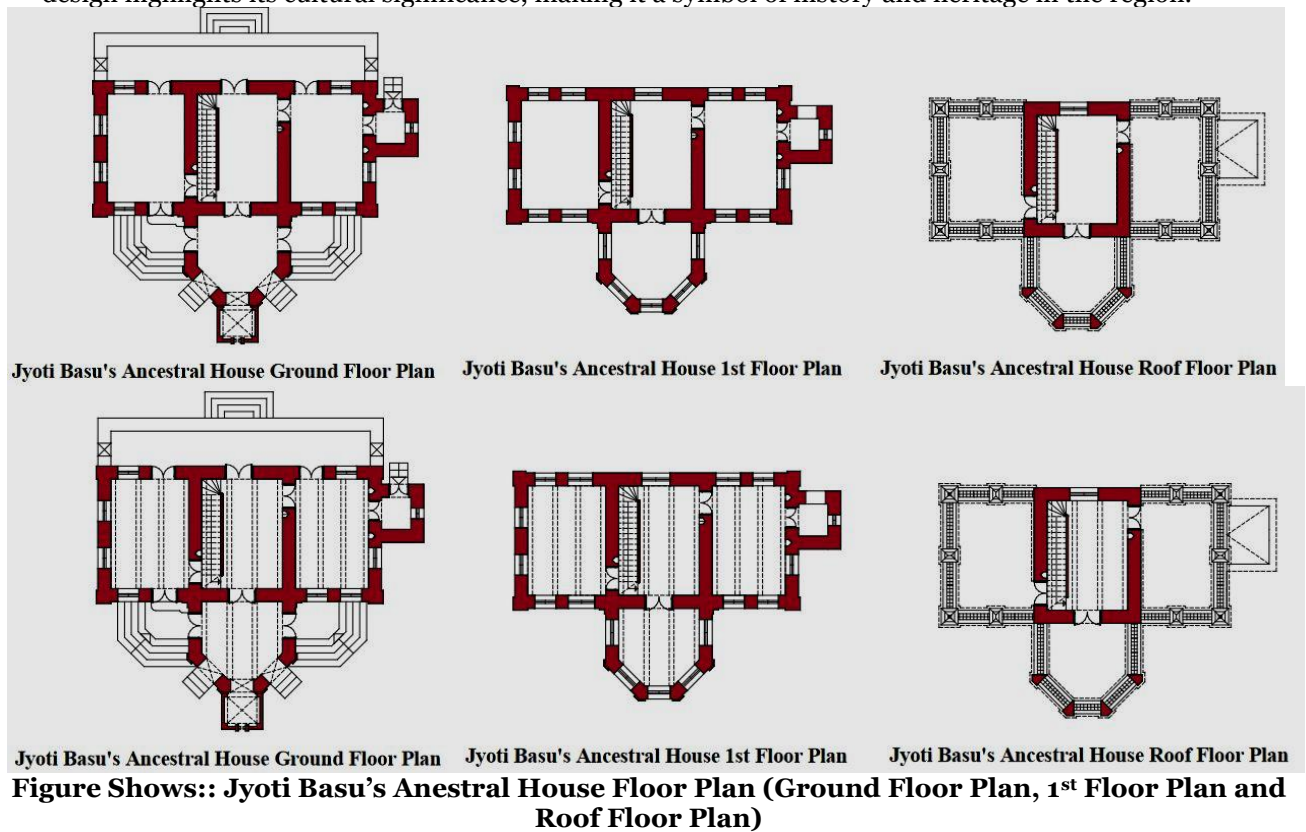


**Figure Shows: Site Plan of Jyotir Basu House Complex**

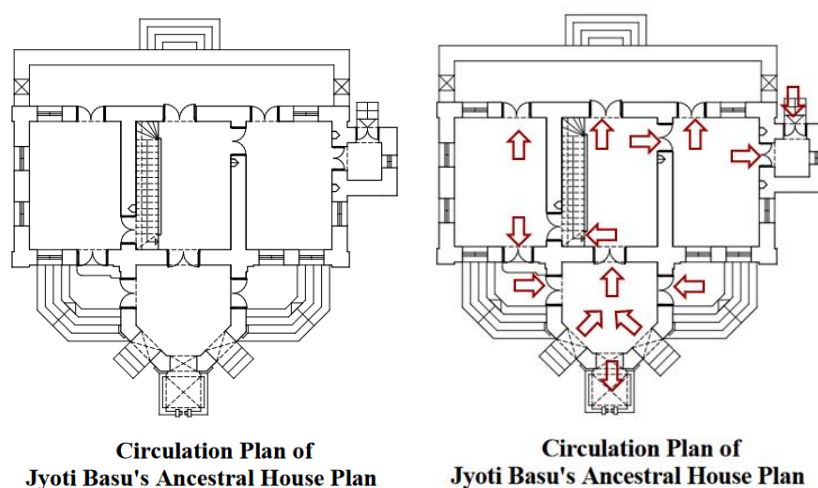
**B. Plan:** Colonial house plans combine classic architectural design with modern amenities. [17] The house of Jyotir Basu is a colonial-era relic that reflects the architectural grandeur of the British period. The symmetrical layout, with its expansive verandas, arched doorways, and high ceilings, was designed to offer both comfort and a statement of status. The central hall, often used for social gatherings, is flanked by rooms on either side, ensuring privacy for residents. Wide windows allow



cross-ventilation, adapting to the tropical climate. The blend of European and local influences in the design highlights its cultural significance, making it a symbol of history and heritage in the region.



**C. BuildingCirculation:** The circulation within Jyoti Basu's heritage houses is designed with a focus on fluid movement and connection between indoor and outdoor spaces and relationships. This historic forms express always feature as a long corridors and open verandas that facilitate air flow and light penetration, essential for the tropical climate. The central courtyard, a common element, acts as a nucleus for movement and interaction, linking various rooms around it. Additionally, strategic placement of windows and doors promotes cross-ventilation, enhancing comfort. This layout not only reflects colonial architectural influences but also prioritizes functionality and social interactions, catering to large, extended family settings.



**Figure Shows:: Circulation of Jyoti Basu's Ancestral House. Drawing by, 2<sup>nd</sup> Author**

#### D. Evaluation of Existing Plan



Figure Shows:: Elevation of Jyoti Basu's Anestral House. Drawing by, 2<sup>nd</sup> Author

**E. The Colonial Influence on Design:** Colonial architecture in South Asia is a product of the amalgamation of Western architectural traditions with local construction techniques and materials. The houses of Jyotir Bosu are prime examples of this synthesis, reflecting the distinct colonial aesthetic while adapting to the region's climate and culture. Built during the British Raj, these houses exhibit influences of neo-classical, Victorian, and Palladian styles, commonly seen in the residences of the elite during that era.



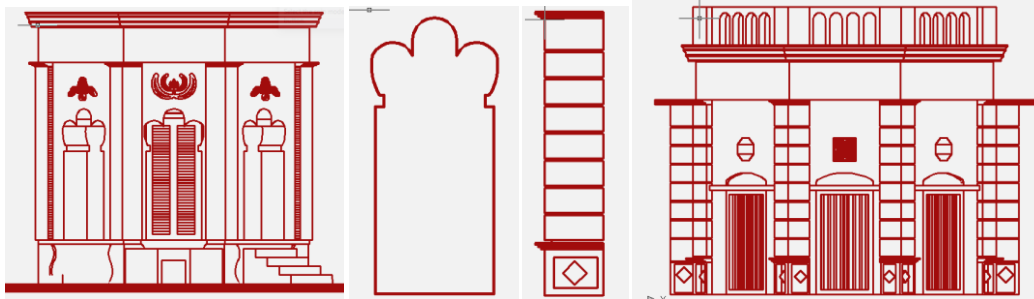
Figure Shows:: Three Dimensional Model View of Jyotir Basu House

**F. Facade and Symmetry:** One of the most striking features of the Jyotir Bosu houses is the symmetrical design of the facade. Colonial houses typically followed a strict geometrical balance, with the central entrance acting as a focal point. The main house usually consists of a rectangular or square plan with symmetrical wings on either side. The front facades of the houses often feature porticoes, supported by columns or pillars, giving them a sense of grandeur and formality. These porticoes serve both functional and aesthetic purposes, providing shade while adding to the visual appeal of the structure.



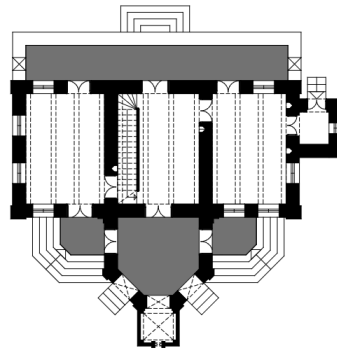
Figure Shows:: Three Dimensional Model View of Jyotir Basu House

**G. Pillars and Arches:** Another hallmark of colonial architecture is the extensive use of pillars and arches. In the houses of Jyotir Bosu, Doric columns can be seen supporting verandas and porticoes. These architectural elements are not just decorative but also provide structural support to the large verandas that surround the houses. The pillars often transition into semi-circular or pointed arches that connect different parts of the house, creating a flow between spaces while maintaining the sense of openness. **An arch is a curved vertical structure spanning an open space underneath it.[18]**



**Figure Shows:: The Pillars and Arches of Jyotir Basu House**

**H. Spatial Layout:** Spatial layouts included Verandahs, Courtyards, High Ceilings, Large Doors and Windows, Materials and Craftmanships. Courtyards and open verandahs are used and featured in colonial buildings.



**Jyoti Basu's Ancestral House Ground Floor Plan**

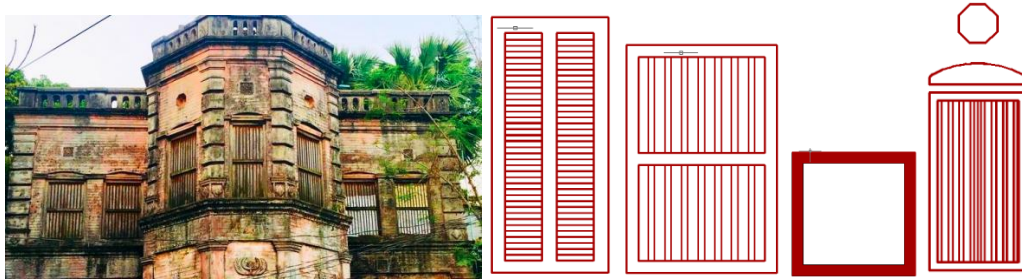
In this sign of Bardi, as there is a front courtyard, a huge courtyard is seen behind. An ancient well is located in this courtyard. Although the existence of water can still be seen in the well, the mouth of the well has been protected by a cage at the top of the well. In front of the well, two modern buildings have been constructed at both ends. The complex of these structures is called Jyoti Basur Houses Complex. In the earlier days, such outer and inner courtyards were seen. A reservoir is connected to the outer courtyard. This reservoir once had a wharf. This is no more. Courtyards are basically an excellent means of fresh air circulation. As the courtyard plays an effective role in cooling the temperature during the summer, the planting of trees throughout creates shaded areas.



**Figure Shows:: Front Sided and Back Sided Verandah's in Jyotir Bosu House**

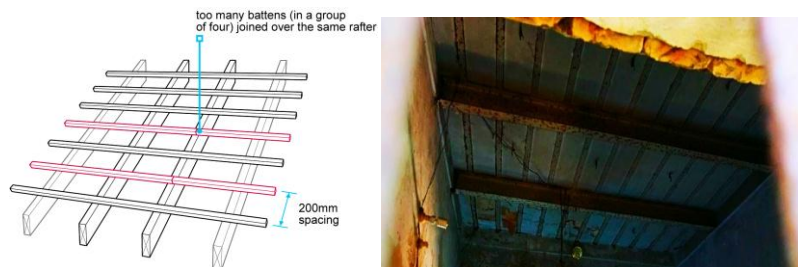
Both the front and back sides of Jyoti Bose's house have balconies. The porch at the front, flanked by ornate pillars and trefoil arches, completes the interior. Back porch is huge. It also serves as a good meeting room. But there is no decoration or railing work in this balcony. The bottom of the balcony i.e., below the plinth level is used as storage. It can also be called a chicken coop.





**Figure Shows:: Series of Doors, Windows, Pannels and Large Windows**

High ceilings and large open doors, windows Apart from the open verandah, Jyoti Bose's house has high ceilings and large windows. There are 18 large windows in the entire structure. These windows, often consisting of wooden shutters or wrought iron grills, play an important role in air circulation and cross ventilation. This attention to ventilation is a particularly important regulator in the humid climate of Bangladesh, where these design elements help to mitigate heat and provide comfort to occupants. Strategically placed high ceilings give the interior spaciousness and an art remark. That is eight to ten different from the other structures. This, in turn, helps maintain a cool indoor environment.



**Figure Shows:: High Ceiling with Gild Roof with Cast Iron Galvanized Work.**

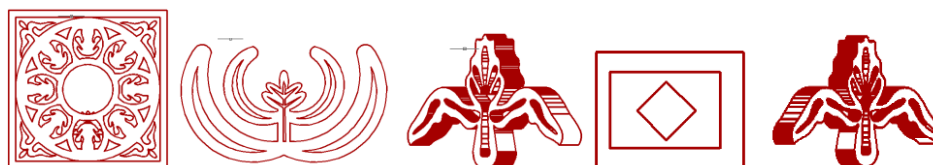
The availability of local materials has played a major role in the architectural construction of this colonial aesthetic. At the same time, there is an unmistakable influence of western architectural techniques. Extensive use of brick and lime-surki is seen in the construction. Moreover, the use of expensive materials like cast iron and teak wood can be seen in the guild. However, the occasional use of glass and gilded iron is a European aesthetic collar application.



**Figure Shows:: Parapet Wall of Colonial Building**

### **I. Building Ornamentation**

**Brick and Stucco Work:** Brick is the best material to withstand the tropical monsoon climate of this temperate region of Bengal. This red brick made of terracotta is the most readily available and cost effective material here. However, during the Sultanate period, the use of red brick was prominent. Extensive use and application of this red brick is seen in the colonial architecture. Sonargaon samples of Sultanate period are widespread. So the use of red brick in Jyoti Bose's house in Bardi is a common phenomenon. The use of stucco is seen in joining two bricks. The use of stucco over brick surfaces was also a common practice in colonial architecture, which added a smooth finish to the walls and allowed for decorative motifs.



**Figure Shows:: Stucco Work In Colonial Building**

**Wooden Detailing:** In Jyoti Bose's house, wood is used as roof, beams, floors, doors, windows and several decorative elements. It is basically teak wood which has survived for hundreds of years. The durability and natural beauty of this sturdy wood made it a desirable material for colonial architects. There is not the slightest deficiency in embellishment and embellishment. In particular, teak wood was widely used to construct balustrades, handrails and roof trusses. In this case, the local craftsmen have played a great role in the work of these establishments. They have made extensive use of western design along with local design. It was a blending system. This opened the doors to a new colonial era.

**Wrought Iron and Stained Glass:** The use of wrought iron in railings, parapets, lintels, gates and window grills add a European touch to the houses. Wrought iron work is often found on balconies and parapets and lintels. It serves both a decorative as well as a functional purpose. In some of the more elaborate houses, stained glass windows, imported from Europe, add a burst of color to the otherwise monochromatic facade. These stained glass panels, often featuring floral or geometric patterns, allow light to filter through the vibrant hues, creating a play of light and shadow within the interior.

#### J. Roof Structure



**Figure Shows:: Different Categories of Roof Structure in Old House**

Colonial houses in tropical climates often feature sloping roofs to allow rainwater to drain off easily. The houses of Jyotir Bosu are no exception, with their high-pitched, sloping roofs that often feature decorative gables. These gables, sometimes adorned with fretwork, are a distinctive feature of colonial architecture, adding both aesthetic value and practical function by providing additional ventilation to the attic space. The use of gable roofs also helps in protecting the walls from heavy rainfall, which is a common occurrence in Bangladesh's monsoon season. Terracotta roof tiles are a common sight in the houses of Jyotir Bosu, offering both durability and heat insulation. The roof trusses, made of wood, are often exposed, adding to the rustic charm of the interior spaces. In some instances, the roof structure includes skylights, allowing natural light to filter into the house and reducing the need for artificial lighting during the day.

#### Cultural Adaptations and Symbolism:



**Figure Shows:: Analysis of the Sections of Houses of Jyotir Basu, Baradi**

While the houses of Jyotir Bosu exhibit clear colonial influences, they are also deeply rooted in the local cultural context. This is evident in the decorative motifs, the use of certain spatial arrangements, and the overall functionality of the houses. For example, many of the houses feature intricately carved wooden doors that bear traditional Bengali patterns, symbolizing prosperity and protection. Similarly, the central courtyards serve not just as spaces for ventilation but also as areas for performing rituals or celebrating cultural festivals, integrating the everyday life of the residents with the architectural design. The houses of Jyotir Bosu in Barodi, Narayanganj, are more than just architectural structures; they are testimonies to a unique period in history when colonial and local cultures intersected to create something distinctly beautiful. From their symmetrical facades and grand porticoes to the use of local materials and craftsmanship, these houses reflect the architectural brilliance of their time. They stand today as reminders of a colonial past while continuing to serve as functional spaces adapted to the local environment and culture. The architectural features of these houses, with their blend of Western and Eastern influences, make them an important part of Bangladesh's architectural heritage.

## Form and Expression

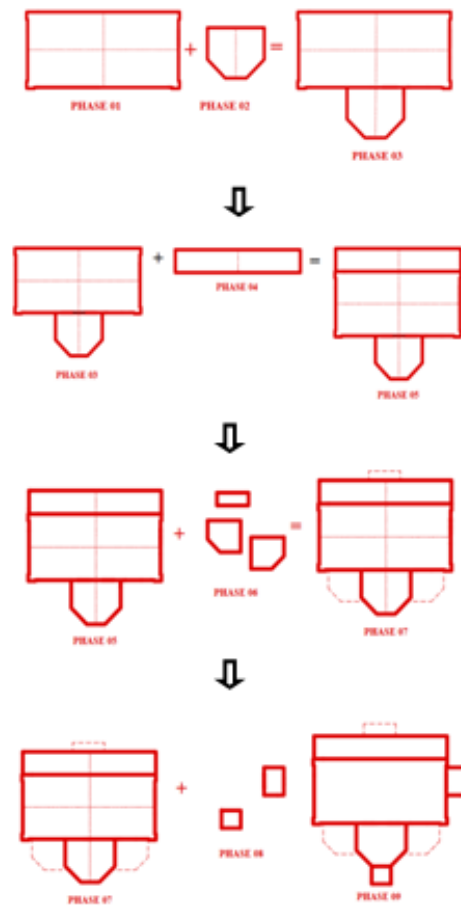


Figure Shows: Chronological Development of Form in Jyotir Basu House Plan

### 05. Prominent Features and Structural Detailings of Colonial House

**Identifying Houses of Jyotir Bosu As A Colonial House:** The Basu family was originally from Dhaka district of British Bengal province in Bardi village of Sonargaon upazila of Narayanganj district in present-day Bangladesh state.[19] The architectural and structural features of Jyoti Bose's house at Bardi mainly represent the colonial legacy. This establishment has strong political significance. That reflects the features of British Raj and Lat houses on this house. There is no place in architecture without colonial outlines. Built during the colonial period, these structures embody a combination of European design elements with traditional local aesthetics.

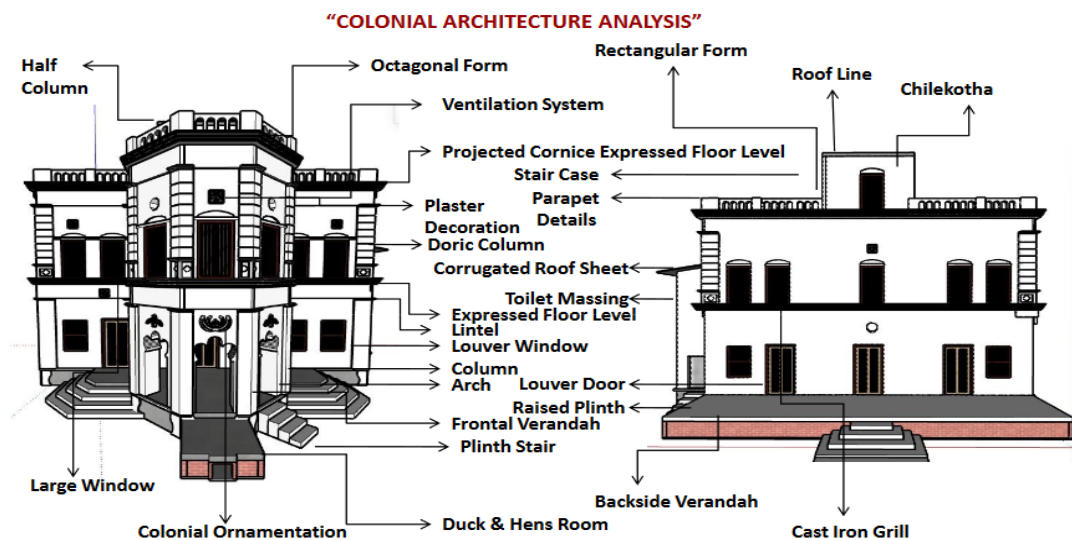


Figure Shows:: Architectural Identification of Colonial House of Jyotir Basu



## 06. Conservation Techniques

The historical legacy of the Jyotir Bosu House in Barodi, Narayanganj, holds deep cultural and architectural significance, representing a piece of colonial history and the personal heritage of one of Bengal's most prominent figures. Preserving such structures requires thoughtful conservation techniques that honor the original aesthetics while ensuring the building's sustainability. Below are 12 key conservation techniques for the Jyotir Bosu House.

**A. Structural Integrity Assessment:** Any work involving restoration should be preceded by a structural evaluation of the building. This makes it possible to notice signs of deterioration, including bent beams, cracked walls, or even compromised foundations. To support the existing structure without making it worse, other non-destructive testing methods such as GPR and structural health assessment can be employed.

**B. Historical Documentation:** Accurate documentation is essential for preserving the historical context of the Jyotir Bosu House. This includes compiling historical photographs, original building plans, and oral histories from local residents or descendants. These records serve as references for restoration and ensure that conservation work aligns with the building's original form and design.



Figure Shows: Amalgamation of Jyotir Basu House

**C. Material Conservation:** One of the most critical aspects of preserving historical buildings is maintaining the authenticity of materials used in the original construction. The Jyotir Bosu House likely contains brick, lime plaster, and wooden beams, all of which should be preserved. Using modern alternatives would undermine the heritage value, so it's essential to repair or replace materials with like-for-like alternatives.

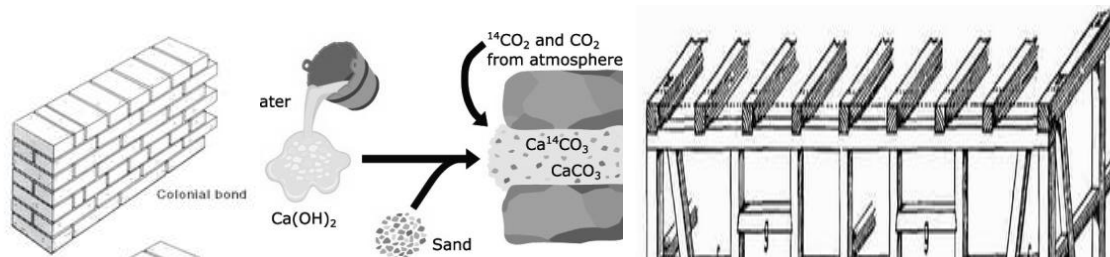


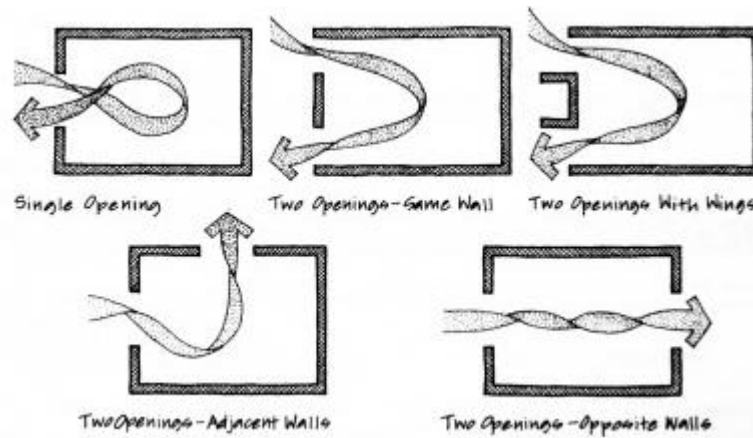
Figure Shows: Building Material for Builing Conservation

**D. Reinforcement of Foundations:** If the structural assessment reveals weaknesses in the foundations, it's crucial to reinforce those using techniques that don't compromise the original foundation materials. Grouting, underpinning, or soil nailing might be employed to strengthen the base while maintaining historical accuracy.

**E. Climate Control and Ventilation:** Historic buildings like the Jyotir Bosu House often lack modern climate control systems, making them vulnerable to humidity, mold, and decay. Installing a climate control system that regulates temperature and humidity can prevent deterioration. Care must be taken to ensure that vents and ducts do not detract from the building's historical features.

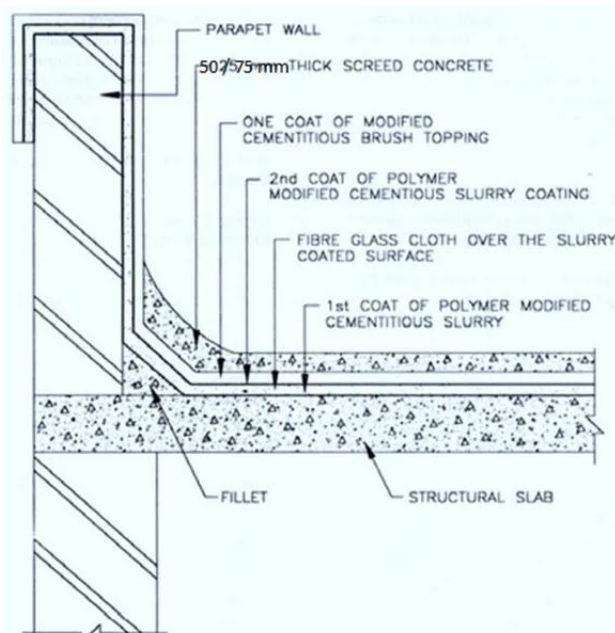


Figure Shows:: Analysis of Ventilation Process in Heritage Buildings



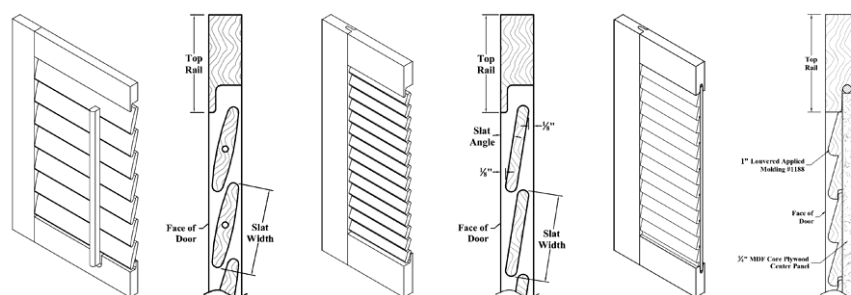
**Figure Shows:: Different Categories of Cross Ventilation That Shows in Colonial House**

**F. Waterproofing and Drainage:** Given Bangladesh's monsoon climate, ensuring that the house is properly waterproofed and has an effective drainage system is crucial. Restoring the roofing and gutters, adding downspouts, and ensuring the proper sloping of surrounding soil will help prevent water damage and maintain the building's structural integrity over time.

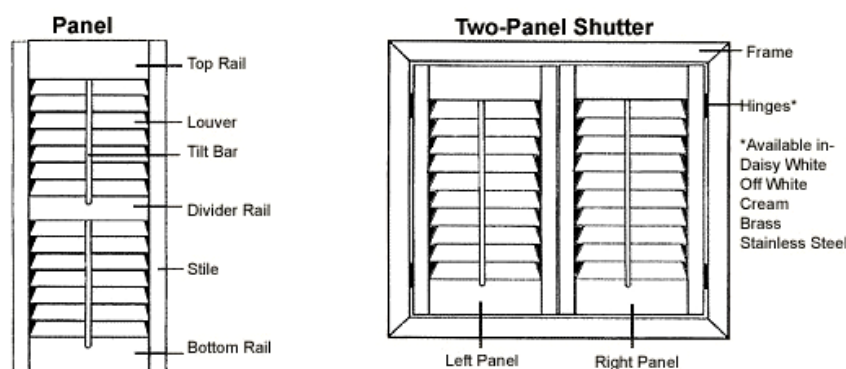


**Figure Shows: Water Roofing Treatment of Roof Slab, Sketch by, CivilBlog.Org**

- G. Pest Control:** Wooden structures are often vulnerable to termites and other pests, especially in tropical regions. Implementing eco-friendly pest control measures such as borate treatments can prevent further damage to wooden beams, windows, and doors, thus preserving the house's original features.
- H. Restoration of Architectural Details:** The Jyotir Bosu House likely features intricate colonial-era architectural details, such as decorative cornices, columns, and archways. These details must be painstakingly restored to their former glory. Craftspeople with specialized skills should be involved to recreate the original craftsmanship using traditional techniques.
- I. Conservation of Windows and Doors:** Windows and doors often provide much of a building's historical charm. Rather than replacing old wooden doors or windows, they should be carefully repaired, restored, or re-glazed if necessary. Any replacement should respect the original design, ensuring compatibility with the house's architectural integrity.



**Figure Shows: Details of louver doors in old building, Figure by, WalzCraft**



**Figure Shows: Details of shutter windows in old building, Figure by, My Shutters Online**

- J. Electrical and Plumbing Modernization:** While maintaining historical accuracy is crucial, modern conveniences cannot be ignored. Updating electrical wiring and plumbing systems should be done with minimal intrusion to the building's fabric. Running new systems in concealed spaces or employing surface-mounted conduits that resemble the era's style can help preserve the historic character.
- K. Community Engagement:** Involving the local community in the conservation efforts fosters a sense of ownership and responsibility towards the Jyotir Bosu House. Public workshops and guided tours can generate interest in the project, raise awareness of its cultural importance, and secure ongoing support for maintenance efforts.
- L. Regular Maintenance Plan:** Once the restoration is complete, a long-term maintenance plan must be put in place. This should include regular inspections, cleaning, minor repairs, and pest control to ensure that the building remains in good condition. A well-maintained historical property will continue to stand as a testimony to the past for generations to come.

## 07. Discussion

Preserving colonial-era architecture, such as the Jyotir Basu House in Barodi, Narayanganj, is vital for several reasons. Firstly, these structures serve as tangible links to our history, offering insights into the socio-economic and political dynamics of the colonial period. They reflect the architectural styles and cultural influences of their time, contributing to the diversity of our heritage. Secondly, preserving such buildings fosters a sense of identity and continuity within the community. The Jyotir Basu House, with its unique design and historical significance, embodies the local narrative and enhances the cultural landscape, allowing future generations to connect with their roots. It can also serve as an educational resource, promoting awareness of the colonial past and its lasting impacts on contemporary society.

Moreover, colonial-era architecture can be a catalyst for tourism, attracting visitors interested in history and architecture. This can boost the local economy and encourage investment in conservation efforts. Ultimately, preserving the Jyotir Basu House is not just about maintaining a structure; it is about safeguarding a significant part of our collective memory, ensuring that the stories and experiences of those who came before us continue to resonate in the present.

## 08. Conclusion

The entire study is a glimpse into the past where Jyoti Bose's house at Bardi in Narayanganj is explored which still stands in glory. The grandeur of the past contains the features that characterize the colonial being and highlights the historical and architectural significance of the establishment. The ancient structure stands as a testament to Jyoti Bose's life philosophy and influence, colonial rule and British colonialism, a cultural and political landscape of the socio-political movement of the time. The research reveals how these houses are not only architectural landmarks but symbols of local identity, resilience and historical memory. The study emphasizes the importance of preserving these heritage sites as they provide a unique insight into the



colonial legacy and its impact on the region. By protecting these structures, future generations can continue to explore and understand the rich historical narratives embedded in Barodi's architectural and cultural fabric, ensuring that Jyoti Bose's legacy and colonial past are not forgotten.

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## 10. References

- [01] Sengupta, Ananya (19 August 2010). "Bangla to fulfil Basu wish - Barudi house to be turned into library and museum". Telegraph India.
- [02] Haque, AKM Muzzammil (2016). "Historic Sonargaon", Bangladesh Arts and Crafts Foundation, Sonargaon, Narayanganj, Bangladesh, Publisher – Rabindra Gope, ISBN: 978-984-34-0277-6
- [03] Afzal Farhat (2018, Feb.19), British Colonial Architecture in Bengal, The Daily Star, Bengal Institute for Architecture, Landscapes and Settlements.
- [04] Wikipedia contributors, "Bangladesh," in Wikipedia: the Free Encyclopedia, <https://en.wikipedia.org/wiki/Bangladesh>, accessed 10 April 2020.
- [05] Willem *van Schendel* (12 February 2009). *A History of Bangladesh*. Cambridge University Press. p. 57. ISBN 9780511997419
- [06] Mowla, Q.A. and Reza, M., 2000, Stylistic Evolution of Architecture in Bangladesh, Journal of the Asiatic Society of Bangladesh, Vol. 45, No. 1: 31-58.
- [07] Rahman, Mohammad Mahbubur, "Banglapedia: The Encyclopedia of Bangladesh", Architecture, Archived from the original on 17 June 2021 at 18:57.
- [08] Moniruzzaman (3 January 2021). "আদিরূপে ফিরছে পানামনগর" [Panam Nagar returning to its original glory]. Prothom Alo (in Bengali). Retrieved 3 July 2024.
- [09] Khanam, Mahmuda (2020). "Conservation Status of Panam City: Challenges and Prospects"(PDF). Jagannath University Journal of Arts. 10 (2): 184–191. ISSN 2519-5816
- [10] Nabila Ferdousi (2019), ARCHIVING 'NAGAR KASHBA', A study on the present condition and the architectural features of an evanescing historic settlement, FARU, An Unit of the Faculty of Architecture, University of Moratuwa, Sri Lanka, Published by Faculty of Architecture, University of Moratuwa, Moratuwa, Sri Lanka, December 2019, ISBN 978-955-9027-79-9
- [11] "Obituary: Jyoti Basu". 17 January 2010. Retrieved 17 January 2022
- [12] Sengupta, Ananya (19 August 2010). "Bangla to fulfil Basu wish - Barudi house to be turned into library and museum". Telegraph India.
- [13] Pandey, Samyak (8 July 2019). "Jyoti Basu, also known as Shalimar, the beacon of Indian Communism who almost became prime minister". The Print
- [14] "Basu's ancestral house in Bangladesh to be made a library". The Economic Times. 18 January 2010.
- [15] Guaita, Ovidio (1999). *On distant shores: colonial houses around the world*. Monacelli Press. ISBN 9781580930512. Retrieved January 26, 2014. World colonial architecture.
- [16] Nayem, 2017, Offroad Bangladesh, House of Jyotir Basu
- [17] Colonial House Plans, (31 October, 2024), 2024, Donald A. Gardner Interactive, LLC.
- [18] Gorse, Johnston & Pritchard 2020, arch.
- [19] "Last colossus of Bengal politics". Hindustan Times. 18 January 2010.
- [20] Haque, AKM Muzzammil (2016). "Historic Sonargaon", Bangladesh Arts and Crafts Foundation, Sonargaon, Narayanganj, Bangladesh, Publisher – Rabindra Gope, ISBN: 978-984-34-0277-6, Page – 152