

Historical Museum Complex at Biratnagar: *Tales of the city*

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Abstract

The adage, "To discover something new, we must study the old. To invent the future, we must understand the past," resonates deeply when we contemplate history. History, in essence, is a journey through the chronological timeline of events that talks about who we once were, and what we've become i.e. our origins and the distance we've covered on this collective journey. These foundational ideas gave rise to the concept of the Historical Museum—a place for self-discovery that weaves together the threads of diverse events, each carrying its own unique story, contributing to the formation of *Biratnagar* as we know it today, from its very inception. This paper explores strategies to present the Historical Museum Complex serving as a storyteller for *Biratnagar* orchestrated as a cinematic narrative, guiding visitors through time narrating its evolution, past experiences, current progress, and future aspirations imparting knowledge and insights to even a general audience, including children. Furthermore, the proposition of a museum is even visualized as a breathing space for the city that addresses environmental, economic, and historical cravings of the human psyche, and serves as an educational hub showcasing various historical artifacts. This paper delves into the study of the museum, exploring its various phases, research methodologies composed of literature reviews, case studies, site analysis, and programs required by the grounds of the site. What makes this proposition rational and reasonable is its spatial hierarchy serving as a public realm that channels people's emotions and life experiences, acting as a social condenser, an information hub for scholars, a research center for the curious, and a convention center for the general public. The subsequent design phase involves conceptualization, planning, development, and translation of research findings into design strategies culminating in a comprehensive conclusion as a tangible design solution.

Keywords

Historical site, Identity, Museum Architecture, Sense of Place

1. Introduction

When the name "Biratnagar" is mentioned, thoughts of an industrial city, the economic epicenter, a political hub, or an educational center arise. This mental imagery results from two visits: first in the mind through imagination, based on preconceived knowledge, and then in reality, where similar elements are encountered. Consider Egypt, a place familiar to many due to symbolic landmarks like the Pyramids, even without a physical visit as Egypt's history, encapsulated by these historical structures, narrates the story of its evolution and journey. Our perception of a place is shaped by a dual process of mental exploration and real-world observation, intertwining imagination with tangible experiences. Biratnagar also possesses similar evidence of a historical site at Bhediary, known as Birat Durbar Complex.

1.1 History of Biratnagar

Speaking of history, not many people still know *Biratnagar* was known as *Gograha Bazar* initially. It was just a small, satellite city to the larger economic and administrative hub of *Rangeli*. But everything changed in 1919 AD when a padlock weighing 100 kg of around 3,100 years old engraved with the word "*Birat*" was found during highway construction. This led to the discovery of a historical site now known as *Birat Durbar Complex* which has underground temple ruins with different idols, coins, and other artifacts dating back 5,000 years. After its discovery, the town underwent a transformation and was officially named Biratnagar. [1]

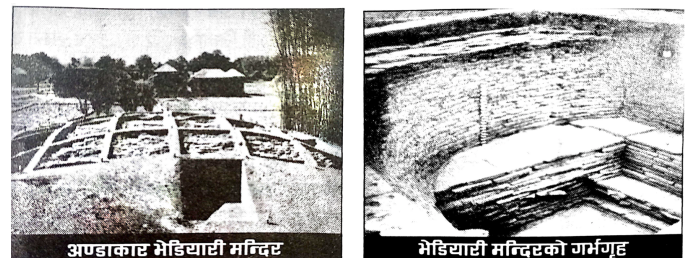


Figure 1: Archaeological ruins of historical site

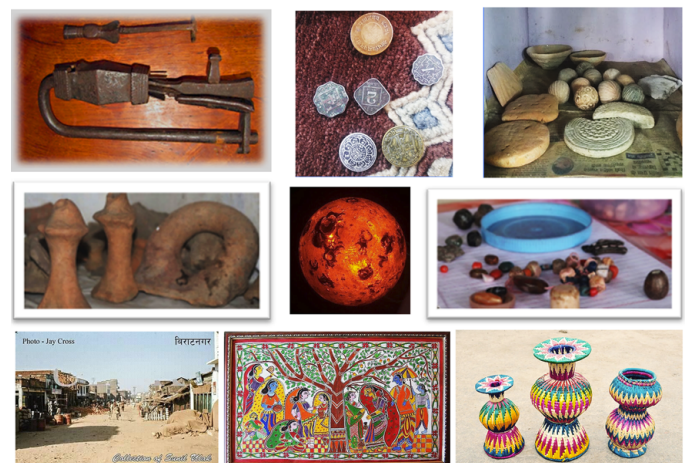


Figure 2: Artifacts from the historical site of Biratnagar

Administrative offices previously located in *Rangeli*, were subsequently relocated to *Biratnagar* for improved accessibility. This shift marked the beginning of *Biratnagar*'s rise to prominence. Local elders in *Biratnagar* often recall that during World War II, the city hosted a notable chain of Jute Mills stretching from Bangladesh to West Bengal in India, earning it the unofficial title of the world's seventh-largest industry maintaining its reputation as the "industrial capital" of Nepal. The Department of Archaeology confirmed the site's significance, and the city was renamed *Biratnagar* in honor of its discovery which not only changed the name of the city but also its fate and developed it drastically. [1]

1.2 Research Problem

The historical site of Birat Durbar Complex occupies an expansive 2.5 sq km area consisting of various historical elements. As per the survey of the local residents and site observations, the main problems were of lack of dedicated spaces for the found ancient artifacts that show identity and history along with the land encroachment of historical sites, vandalism to its landmark spaces, and depletion of ancient lacks. According to the metropolitan officials, possible ways for its preservation and promotion with the establishment of an information center and the construction of a compound wall on the excavation site premises were attempted. Despite these efforts, valuable archaeological remains remain neglected and its historical site is still buried, unrevealed, and unprotected with no respect to its place value. Moreover, the lack of awareness of general people about the city's history is a big issue that has diminished an important historical subject of national interest for the eastern region which has as similar potential as the Lumbini Development Area in the western region.

1.3 Objectives

To study the history and chronological development of Biratnagar city to analyze and conclude suggestions for the preservation of the historical site, including its important landmark elements and spaces.

To propose a historical museum as a 'genius loci' that preserves and exhibits the findings along with a research center and convention services for an approach to holistic design solution.

1.4 Research Questions

How can a museum be a place in *Biratnagar* that demonstrates the **timeline of the city's evolution and phases of development** while also connecting people socially, emotionally, and intellectually with a sense of belonging to the historical site?

2. Methodology

Through interviews with historians and researchers, social surveys, literature review, case studies, site analysis, design strategies, etc., a comprehensive understanding of the historical and socio-cultural context of *Biratnagar* was acquired. This contributed to a clear understanding of the

project's context and requirements to give a conclusive meaning to the research.

Topic Selection, Interviews, and Surveys: An overview of current issues of the historical site of Bhediyari area at Biratnagar city gave rise to a topic for exploration and research about its history. The interviews revealed that the city has great tourism potential but lacks adequate tourist spots. Social surveys revealed that there is a need for programmatic built spaces that could preserve the findings of the *Birat Durbar Complex* and

Literature review: Site observations and historians' research provided insights into the city's evolution. The literature review, initially based on secondary sources, included studies and interviews with historians and officials. It explored architectural approaches to preserve and exhibit the findings of the Birat Durbar Complex and revive the ancient Birat Pokhari, contributing to plans for historical sites as museum design.

Case Studies: Diverse case studies, spanning national, international, and regional contexts, provided a nuanced exploration of museum design. National examples, such as the Lumbini Museum and the National Museum at Chhauni, shed light on historical projects and exhibition methods in Nepal. International museums like the New Acropolis Museum showcased distinctive contemporary forms while also preserving archaeological ruins and the Jewish Museum gave a sense of narrative-driven designs, offering insights into storytelling. The Zhuhai City Museum emphasized themed approaches aligned with city evolution, while the regional Bihar Museum in Patna offered a modern historical museum design perspective, blending abstract forms with traditional architectural elements and showcasing a sensitive approach to preserving historical objects.

Site study and analysis and program formulation: The site analysis evaluated the funneling of the most potential chunk of the area that would be suitable. The selected site factors like climatic, geographical, historical, socio-cultural, legal, etc. context were analyzed and programs required by the ground were proposed.

Conceptualization, Planning, and Design: This phase involved understanding previous research, developing strategies implementing design approaches conceptualizing and planning as per the site's context, geometry, and requirements.

3. Museum Design

Architecture influences every individual, whether they realize it or not. Museums, in particular, hold the power to create high-magnitude influence. Museum design, a multidisciplinary field, focuses on creating engaging and informative spaces for exhibiting artifacts, artworks, or historical items. Designers meticulously consider layout, lighting, display methods, and interactive elements to strike a balance between aesthetic appeal and functionality, ensuring exhibits convey the intended message. Modern designs often integrate technology and immersive environments, crafting a dynamic and educational atmosphere. [2]

Beyond aesthetics, a museum is a holistic experience evoking human emotions through carefully curated spatial elements aligned with its curatorial theme. Achieving this involves considering spatial scales, guided journeys, color schemes, lighting, and material choices. Thus, designing a museum entails a comprehensive approach to creating a space that effectively communicates the institution's mission, providing an engaging and educational experience for visitors while preserving and showcasing collections. [2]

A survey of museum visitors revealed five distinct types of expectations when it comes to the museum experience: **excitement; thrill and entertainment; cultural engagement and socialization; historical reflection; and escapism.** This showed visitors' preferences and demographic factors, highlighting the diverse demands and expectations users have for museum spaces. Initially, museum designs were overly formal and monotonous, causing people to lose interest in the subjects they presented but now, it longer align with the changing world's demand for openness, pragmatism, and collective involvement.

3.1 Historical Museum Design

Historical institutions are the hubs of knowledge, offering insights into history, facts, and various subjects. Traditionally, museums have focused on a city's history as its rulers, and notable battles, but they often overlook significant events that played a crucial role in the city's evolution, events that have been related to its development and progress. Historical museum design focuses on creating immersive and educational spaces dedicated to preserving and presenting historical artifacts, narratives, and cultural heritage. The exhibits are curated considering factors such as chronological layout, contextual storytelling, and the integration of interactive elements to engage visitors with the past. The goal is to transport individuals into different historical eras, fostering an understanding of the evolution of societies, events, and traditions. Incorporating thoughtful spatial planning, lighting, and display techniques, historical museum design aims to evoke a sense of connection and appreciation for the rich tapestry of human history. [3]

3.2 Elements of Museum Design

Mission and Theme: Defining the museum's purpose, mission, and the thematic focus of its exhibits guides all other design decisions. [4]

Architecture and Building Design: The architectural design complementing the museum's mission and theme as historical is not necessarily meant to be ornamented or traditional instead, contemporary forms with abstracts of historical elements and narrative planning denoting historical journey can be adopted. [4]

Exhibit Spaces Design: Planning the layout of exhibit spaces, including galleries, halls, and interactive areas creates a better flow and accessibility. The scheduling of exhibit designs effectively conveys the museum's message and the use of multimedia, signage, and interactive elements adds value to engage visitors. [5]

Lighting, Sound, and Acoustics: A combination of natural

and artificial lighting creates the right ambiance to showcase artifacts and exhibits and prevents damage to sensitive materials. Management of acoustics minimizes noise and ensures that audio exhibits can be heard clearly. [5]

Climate Control and Sustainability: Maintenance of stable temperature and humidity levels through the HVAC system preserves artifacts and artwork. Consideration of Eco-friendly design elements such as energy-efficient lighting, sustainable building materials, and water conservation measures creates sustainable design. [6]

Accessibility, Way-finding, and Signage: The accessibility museum to people of all abilities with the inclusion of ramps, elevators, and accommodations for visually and hearing-impaired visitors creates a socially inclusive design. Clear and intuitive way-finding systems help visitors navigate the museum. The use of signage provides information and context for exhibits. [7]

Interactive Elements as Visitor Amenities: The incorporation of interactive displays, touch screens, and multimedia presentations to enhance the visitor experience and provide additional context to exhibits and amenities like restrooms, cafes, gift shops, and seating areas enhance the visitor experience. [7]

Security, Storage, and Conservation: Implementation of robust security measures helps to protect valuable artifacts. This may include surveillance systems, alarm systems, and controlled access to certain areas. Design of secure storage areas and conservation labs protects and maintains the museum's collection. [8]

4. Study area Overview

4.1 Site selection and study

When choosing a museum site, thorough consideration of project requirements and location attributes is vital. Key factors include availability, accessibility, cost, security, visibility, and compatibility with neighboring facilities.

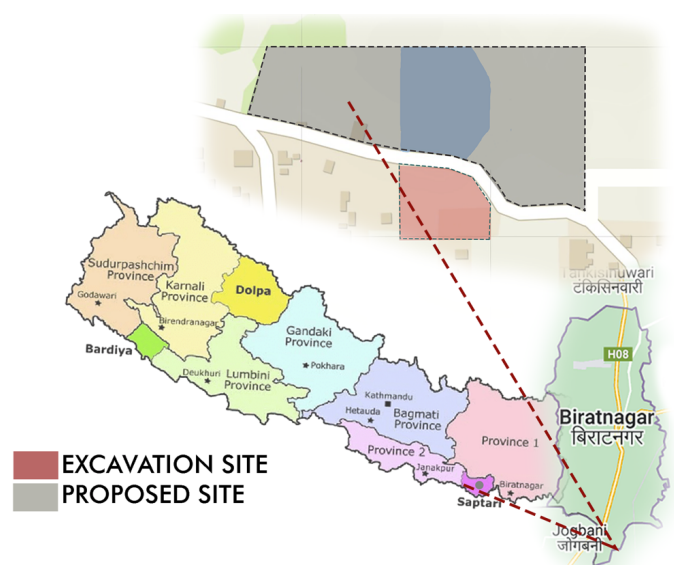


Figure 3: Site location

Favorable sites often serve as visitor magnets, such as traffic hubs, central areas, parks, squares, etc. Historical or archaeological sites are prime choices for historical museums due to their inherent visitor attraction potential.

In the case of *Biratnagar*, the selected site is positioned adjacent to the excavation site, strategically allocating one portion for new development and another for heritage preservation. The selected site also has the ability to provide optimal conditions for the museum's functions, proximity to universities, and capacity to attract both established and potential visitors. The envisioned development, including museum galleries, research centers, convention services, and public realm spaces, is poised to transform the site into a vibrant cultural and educational hub.



Figure 4: Site's relation with historical elements

4.2 Prime Issues:

The historical site is lacking its place value along with the declination of lakes. On an observation of google maps from 2010 to 2022, the *Birat Pokhari* has declined. The site's surrounding is of haphazard settlement that is growing and creating land encroachment of the excavation site, and landfill of lakes and ponds. The site conditions come with the challenges of being located in proximity to the railway lines on the north and a sensitive excavation site on the south. The site geometry also challenges the connectivity issue with the presence of *Birat Pokhari* at the center dividing it into two halves and the separation created by road with the excavation site. The site surroundings come with diverse squatter low-scale settlements.



Figure 5: Depletion of Biratpokhari over the time



Figure 6: Architectural styles in site's surrounding

4.3 Site Strengths:

The site also offers a bunch of strengths regarding its vital position and strong connection to other important landmarks. The presence of *Birat Pokhari* as a water body makes it alluring and a tool to defend the hot climate and provides opportunities for recreational activities. The proximity to the India Border makes it accessible not just to Nepalese visitors but also the Indian tourists.

5. Strategies and Approaches

The following design strategies justify the city's heritage, offer an immersive experience, and promote its historical narrative and sustainable future.

Architectural Evolution and Time Travel: Incorporation of diverse architectural styles reflects the city's historical evolution, connecting visitors with its past and present. Depiction of the city's transformation using various architectural expressions and materials to highlight its evolving fabric.

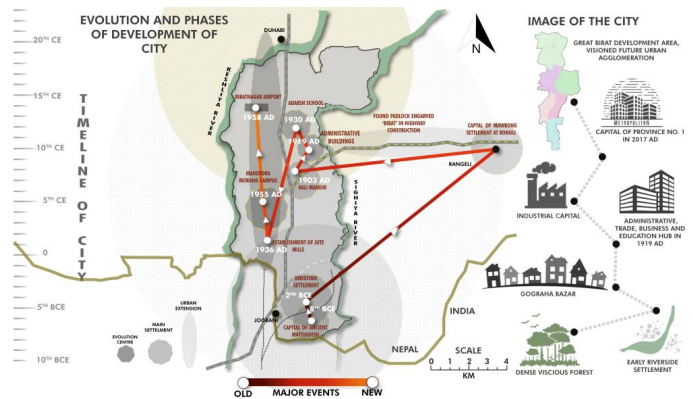


Figure 7: Evolution map of Biratnagar

Seamless Archaeological Integration: Integration of the museum into the excavation site to showcase archaeological treasures, could bridge history with contemporary exhibits.

Architectural Evolution Showcase: The depiction of the city's transformation over time could be done using various architectural expressions and materials of the city's urban fabric to highlight its evolution.

INITIAL SCRATCH SKETCHES FOR FACADE

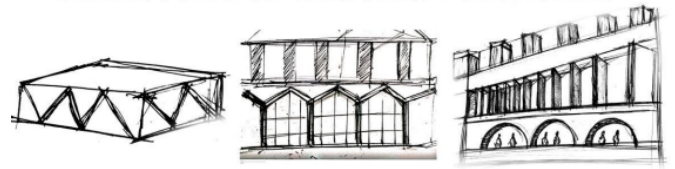


Figure 8: Abstracts from the traditional architectural expression

Engaging Exhibition Narrative: The creation of a narrative museum setting that immerses visitors in the city's history, fostering emotional connections and a deeper understanding could justify the curatorial message.

Efficient Circulation: The establishment of easy connections across the site's divisions, would ensure smooth movement for users, visitors, and staff for universal accessibility.

Sustainable Design: Implementation of green technologies like green roofs, walls, rainwater harvesting, and solar energy in the museum design could align with the city's monsoon-influenced hot and humid climatic conditions justifying its environmental concerns.

6. Planning and Concept

The Historical Museum Complex at *Biratnagar* is conceived as an iconic symbol that leaves a lasting impression on visitors. It maximizes the elongated site using a **"Chained Group Form"** approach of aligning programmatic functional spaces one after another chained together in terms of planning, connecting various architectural elements via outdoor spaces and corridors like courtyards and plazas. This design provides a structured framework for exhibits and guides visitors on an immersive learning journey, connecting them to the city's history and deeper symbolism. The complex's landscaped areas are intricately designed, blending hardscape and softscape elements harmoniously to create a dynamic yet modest profile that complements the existing site conditions.

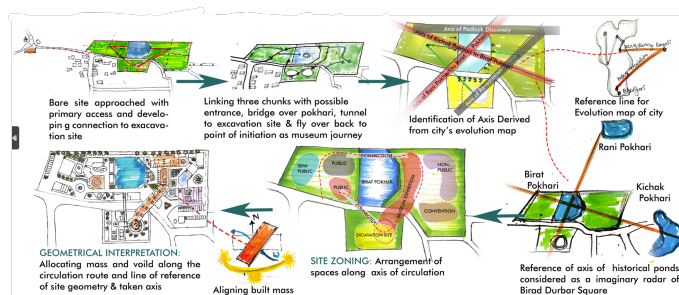


Figure 9: Planning strategy for site development

The architecture of a museum significantly influences our experience of its exhibits. The arrangement of exhibits interacts with the museum's layout to achieve specific effects, convey intended messages, and create a more enriched spatial experience. Modern museums, departing from traditional forms, embrace diversity and distinctive character. This historical museum is a unique expression of the relationship between the building and its role as a vessel for art and purpose. The project's experimental nature is evident in its built forms, exhibit design, and circulation, combining architectural and curatorial concepts. The museum tour becomes akin to a narrative script, allowing visitors to construct a mental image and knowledge map through spatial engagement. Circulation within the museum serves as a meaningful narrative, employing storytelling in a format that enlightens visitors, departing from didactic displays in favor of dioramas and interactive spatial experiences. The layout embodies aesthetics and cultural values through spatial interactivity, resembling a **"cabinet of curiosities"** to enlighten and engage visitors.

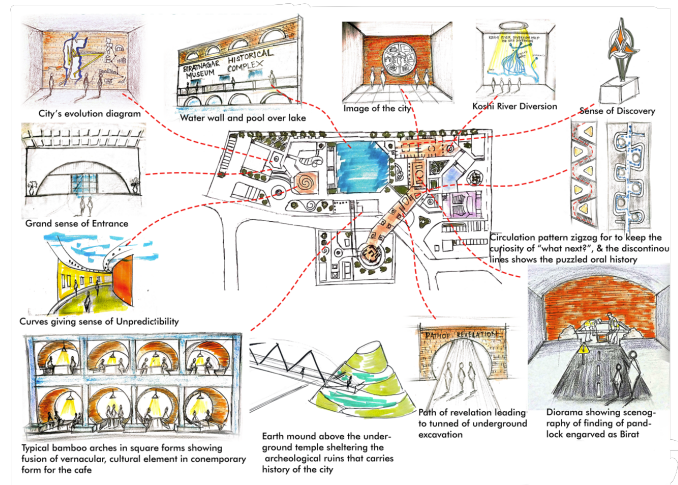


Figure 10: Scratch sketches of visitor's experience

To organize the museum complex effectively, the site is divided into distinct functional zones. Based on visitor psychology and needs, programs from the entrance hall for the overall orientation of the museum to the layered experiential-themed spaces of curiosity delving into deep down to the history are strategically positioned upon site connection. The museum environment is conceived as an educational landscape that fosters a serene atmosphere conducive to learning. Independent wings are interconnected through open-to-sky courtyards, ensuring a connection to the surrounding landscape while providing shelter and comfort year-round. Each courtyard features a unique theme, configuration, and spatial character. These blocks are linked by covered walkways characterized by deeply recessed openings and modern Jaali screens, allowing natural light while shielding spaces from heat and providing respite from vast exhibition areas.

7. Design Output and Discussion

In essence, the Historical Museum Complex in Biratnagar is a multifaceted architectural project, seeking to preserve and illuminate the city's past, drive academic research, and provide a platform for community cohesion.

Cultural Enrichment: The Historical Museum Complex in Biratnagar is dedicated to deepening our knowledge, fostering understanding, and nurturing appreciation for the pivotal events, people, and artifacts that have shaped the unique history and identity of the city.

Chronological Narration: This project is designed to curate and exhibit findings from the Birat Durbar Complex and a diverse array of objects representing the city's history and culture thoughtfully arranged to tell the compelling story of the city's chronological development while being bound by a unifying theme, offering visitors an engaging and enlightening experience.

Preservation and Awareness: Beyond the role of a traditional museum, this complex serves as a vital guardian of the city's ancient heritage, including archaeological ruins. Its mission extends to conserving history as a cornerstone of identity, generating awareness, and instilling a sense of stewardship in the community.

Research hub: Recognizing a void in research facilities within Province No. 1, especially concerning history, providing dedicated research spaces for the exploration of new archaeological findings, establishes itself as a focal point for historical studies.

Sustainability and Accessibility: Inclusion of sustainable building practices, energy-efficient systems of rainwater harvesting, solar panel installation, and eco-friendly materials. Additionally, the bridge connection over Pokhari and the tunnel to the underground temple ruins focus on accessibility to diverse audiences.

Community Integration: Situated in an industrial city with limited open spaces for public gatherings and conventions, the inclusion of an auditorium in the museum complex addresses the city's need for spaces conducive to community engagement and events.

8. Conclusion

The *Historical Museum Complex at Biratnagar* represents a significant evolution in museum architecture preserving historical collections while simultaneously creating dynamic educational exhibits, and transcending traditional artifact displays to embrace immersive storytelling through interactive engagement, functional research spaces, and communal recreational areas that resonate with diverse audiences in the contemporary era.

The extensive research is based on three aspects: **uncovering the truth behind historical accounts; strategies to transform verbal history into pictorial representations and design output with its adaptability to modern trends.** This included the incorporation of abstract elements from traditional architectural styles reflecting a harmonious fusion of heritage and innovation while also thoughtfully crafting the museum's circuit and exhibition areas to be inclusive, and accessible to individuals leading them into historical narratives, and creating a sense of immersive experience that not only imparts knowledge but also fosters a profound sense of identity and self-discovery. This way curatorial narrative seamlessly is intertwined with the architectural spaces effectively conveying the museum's purpose and educational mission.

In conclusion, the envisioned *Historical Museum Complex* is not only about the development of the historical site but also about the broader prospects of the city, benefiting people and instilling national pride. Thus, the research represents a proposition of museum design with a harmonious blend of heritage preservation, contemporary innovation through sustainable approaches, and community engagement through public realm spaces, poised to become a cultural cornerstone and a symbol of historical significance.

9. Recommendations and Suggestions

9.1 Short-Term Plans:

Land Acquisition and Protection: The initial step involves the acquisition of the 2.4 sq. km. area known as the *Birat*

Durbar Complex by the Metropolitan authorities, designating it as a protected historical site to safeguard the area from land encroachments.

Archaeological Ruin Preservation: Immediate actions should be taken to protect excavated archaeological ruins within the complex. This preservation effort is crucial to maintain the historical integrity of the site.

Revival of Historical Lakes and Ponds: Initiatives should be taken for the restoration and revitalization of historical lakes and ponds within the complex, including *Kichak Pokhari*, *Rani Pokhari*, *Mantha Pokhari*, etc. would enhance the aesthetics and historical significance of the site.

9.2 Long-Term Plans:

Public Realm Enhancement: In the long term, there is a need to create a vibrant and engaging public realm space around the lakes and ponds. This space should be designed to accommodate meaningful activities, cultural events, and gatherings, allowing visitors to fully immerse themselves in the historical and cultural ambiance of the site.

Development Projects: Proposition of new development projects like museums, research centers, convention services, and facilities designed for public use within the vicinity of the excavation site. Such additions will not only contribute to the educational and research aspects of the *historical site* but also provide value to the *Biratnagar*.

Acknowledgments

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