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Conservation of Dhulikhel

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Abstract— This paper outlines a comprehensive conservation project addressing historical and natural heritage in Dhulikhel, an endangered settlement in Kavrepalanchowk. Undertaken in two phases, the initiative began with inventory and documentation conducted by the 2075 batch of architecture students of Kathmandu Engineering College. The final phase involved identifying existing issues by our team and proposing solutions to prevent further deterioration. The primary objective is the conservation of Dhulikhel, focusing on reviving the settlement by discouraging out-migration and creating diverse employment opportunities centered on its five main celebratory nodes (Chowk).

Keywords— Conservation, Dhulikhel, Heritage preservation, Community engagement, Economic revitalization

Introduction

Preserving memories through architectural heritage conservation is crucial as the world changes. This involves restoring and managing heritage sites to maintain their significance.

Dhulikhel, in Kavrepalanchok District, was a key trading center linking Nepal to Tibet and eastern Nepal. Now a tourist destination for Himalayan views, it is the district's administrative center. Historically, Dhulikhel ("Dhali-khela" or "yogurt field") was part of Nepal Mandala and resisted King Prithvi Narayan Shah's conquest. Documented since 1402 B.S. as "Dharikshal," it remains a cultural and historical hub.

Present Condition

To conserve the Dhulikhel settlement, it is essential to understand its current condition. Therefore, we have conducted inventories of monuments, carried out thorough

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documentation, and created basemaps to capture the present scenario of the settlement. These efforts help identify and address the problems in Dhulikhel, paving the way for effective solutions.

A. Major Monuments

Dhulikhel features diverse festivals and temples like Narayan, Bhagwati, Lankhana Mai, and two Ganesh Temples, each showcasing unique architectural styles. Taleju Temple stands out with its distinctive wing-like roof and gold-plated elements. The Old Town's Newari-style residences boast terracotta walls and intricate wood carvings. Historic sites such as Dabali platforms and Chapalachhi Chowk's temples preserve ancient traditions, while 'Pore Bunga' springs and old wells serve practical and religious purposes. Despite modern influences, Lagan Dabali and Harisiddhi Dabali remain central to Navadurga rituals, and Sorhakhutte Patti reflects craftsmanship dating back to the 12th century.

1. Ganesh temples: -

At the beginning of each tole in Dhulikhel, a Ganesh Temple symbolizes safety, prosperity, and auspicious beginnings for travelers and new endeavors; with four toles, there are four Ganesh Temples in total.

2. Harisiddhi Trishakti Bhawani Temple: -

Founded by Jog Narayan Bahadur Sidhi in 1846 AD, this three-story brick temple is renowned for its East-West orientation and intricate architectural details, including a copper torana and deity figure-struts. It is dedicated to the goddess Harisiddhi.

3. Shesh Narayan Temple: -

This Vishnu temple, featuring traditional Newari architecture with wood carvings, pagoda roofs, and bronze elements, faces

challenges in preserving its original ambiance due to security measures like iron bars, despite renovations including one in 1995-96.

4. Chandra Ghanteswari Bhagwati Temple: -

This three-tiered temple showcases traditional Newari architecture with intricate wood carvings and a gold-plated roof. The temple, believed to have developed from the goddess Bhagwati's desire for a new home, features statues of various deities, a Shiva-linga, and a roaring lion statue on a stone column.



Fig 1 : Chandra Ghanteswari Bhagwati temple

B. Basemap:

The basemap outlines Dhulikhel's traditional town pattern, bordered by the BP highway to the northwest and the Araniko highway to the northeast. It is divided into a core traditional zone and a developing zone, with agricultural lands to the south.

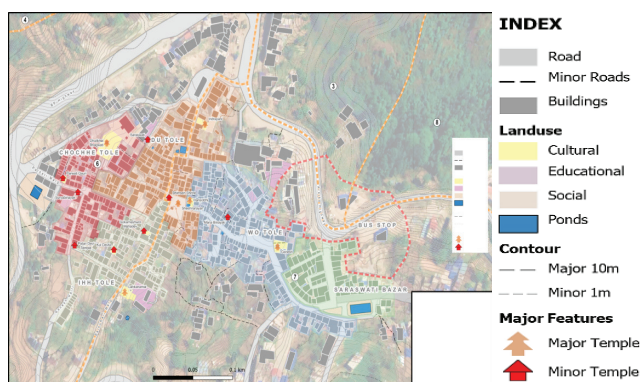


Fig 2 : Overall Basemap of Dhulikhel

Dhulikhel is divided into five toles: Wo Tole (26%), Ihh Tole (28%), Du Tole (22%), Chochhen Tole (15%), and Saraswati Bazar (9%). The southern area, with narrow earthen roads, is ideal for expansion. Main vehicle access is from the north, east (bus park), and west. The primary road covers 45%, secondary roads 32%, galls 12%, and local roads 11%. Built forms occupy 34-36%, vegetation 19-21%, and roads 18-20%. The surveyed buildings, 582 in total, are mostly residential (417), with mixed-use (106) and commercial (21) structures, clustered mainly in the core. Traditional buildings are often abandoned, while mixed-use and commercial buildings are more common near the roads.

Waterspouts in Dhulikhel evolved through four phases—Medieval Hiti, Rana Period Juddha Dhara, Indian-funded water supply, and the transformative GTZ project.

C. Documentation

Documentation in conservation is the process of recording and preserving information about cultural heritage objects, sites, or natural resources. Involves creating detailed and accurate records of the condition, history, and significance of the items or areas being conserved. Instruments like measuring tape, folding scale and laser light were used for the measurement while conducting documentation. Following processes were involved while performing the documentation of significant buildings:

- Documentation Plan
- Inventory and Assessment
- Research and Historical Documentation
- Documentation Formats
- Maintenance and Monitoring Plan

i. Residence

Documentation of eight traditional residences in Dhulikhel reflects architectural influences from the Malla and Rana periods. Each residence showcases unique features, such as sa-jhya and tiki jhya at Residence 1 (Kwachha Marg, Wo Tol), Rana-style architecture at Residence 2 (Wo Tol), a unique floor plan at Residence 3 (Do-Tole), and a traditional slope roof at Residence 4 (Wo Tol), highlighting the area's rich cultural heritage.

Residences 5 to 8 in Dhulikhel feature unique architectural elements and historical significance. Residence 5 (Do-Tole) has traditional windows and a unique balcony, Residence 6 (Du Tole) includes a Tasbir Jhya and a traditional shopfront. Residence 7 (Chochhen Tole) has a distinctive alley and mixed materials, while Residence 8 (Chochhen Tole) retains Malla-style windows near the Bhairab temple.

These residences use traditional materials like mud, brick, and timber, with sloped roofs designed for the local climate, yet many have modern upper-level modifications, reflecting Kathmandu's evolving architectural landscape.




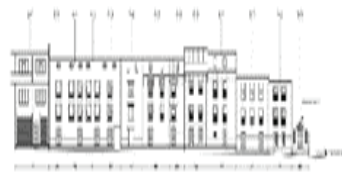


ii. Temple

Chandra Ghanteswari Bhagwati Temple in Chochole, Ward No. 04, built in the 19th century, features a three-stepped pagoda style with lion statues at the entrance. Renovated in 1934, it hosts Asvina-Sukhlaekadasi festivals and is tended by an Achaju priest. The Ganesh Temple in Wo: tole, Ward No. 02, dating to 1832 A.D., showcases a three-tiered structure with intricate wood carvings and a Ganesh torana. It was renovated in 1936 and is celebrated during Indra Jatra. Lankhanamai Temple in Ihh-tole, Ward No. 06, established in 1679 A.D., is renowned for its woodwork and houses a Mukhalinga and a hitti waterspout, although it lacks an entry torana.

iii. *Stretch elevations*

The documentation of the stretches that hold high significance of the culture and traditions of Dhulikhel reveals various architectural influences of different periods and showcases unique features. Study of the stretch highlights the changes and interventions throughout the different period.

TABLE I:
STRETCH DETAILS

	Stretch 1	Stretch 2	Stretch 3
Location	Chochetole, Ward No. 04	Wo: tole, Ward No. 02	Du-tole,
Building Typology	Mixed used and residential buildings.	Mixed used, shop fronts and residential buildings.	Mixed used and residential buildings.
Location On Key Map			
Selection	<ul style="list-style-type: none"> The stretch is selected due to its significance in the road being a funeral procession route. 	<ul style="list-style-type: none"> Jatra route. Leads to a major chowk More traditional buildings. 	<ul style="list-style-type: none"> Jatra Route for Harisiddhi jatra. One of the major active nodes with dabali on either side of road.
Drawings			

Problems and Issues Identified

The major problems and issues which are seen during the survey of Dhulikhel are listed below:

1. Haphazard Urban Growth
2. Unmanaged Parking
3. Influence of RCC Building
4. Temples and Monument



Fig 3 : Decaying of traditional Materials (on the left) Pukhus site used as dumping area (on the right)

Proposed Solution

This project transforms Dhulikhel's open spaces into vibrant hubs for community and tourism, revitalizing cultural legacy

through festivals, gatherings, and activities. It supports socio-cultural, religious, and economic sustainability by preserving Newari customs, hosting local food festivals, and cultural displays. Dhulikhel's green spaces will evolve into dynamic hubs, safeguarding the city's unique character and legacy.

A. Zoning

Dhulikhel is divided into three zones: the protected monument zone housing landmarks like Bhagwati Temple, Sheshnarayan Mandir, Harisiddhi Mandir, Lankhanamai Temple, and Ganesh Mandir. The core settlement features traditional buildings with courtyards, exposed brickwork, carved windows, narrow streets, and stone-paved areas, highlighting the region's cultural heritage. Surrounding this area is the Heritage Walk zone, spanning from Ganeshthan Mandir through Dup-chowk, Kwacha Marga, Du Tole Chowk, and the Bhagwati complex. Beyond lies the commercial/buffer zone, rapidly developing along the highway with hotels, spas, shops, workshops, and other businesses, contributing to Dhulikhel's urban growth.

B. The Masterplan

To preserve Dhulikhel's cultural heritage, a master plan

blends modern and traditional elements, creating spaces for events and festivals. This initiative revitalizes traditions, fostering community through hubs that showcase local culture. The plan preserves structures and cultural life, with zones supporting development while respecting regional dynamics. The Heritage Walk through areas like Saraswati Bazar and Ganesthan Mandir features galleries, parks, a bhajan mandali, and a cafe, with major highways enhancing accessibility in eastern Dhulikhel. Various interventions in the master plan include added functions and activities tailored to current needs for tourism and community purposes.

1. Reconstruction of Ganesh Mandir, Gallery Building and sattal in the Ganesthan (Wo-tole).
2. Redesign of demolished house to workshop (Proposed Dhup-chowk).
3. Redevelopment of Haka Pukhu and Ramnam Pukhu (As shown in above Masterplan).
4. Addition of Signage, seating space, streetlights, public toilets in public open space.
5. Replacement of CGI sheets by Jhingati tiles in the traditional core zone.
6. Design the Lachhi View Café and Information Center at Sheshnarayan Chowk by adding a new building on vacant land.
7. Adaptive Reuse of vacant house (bnb, cafe, gallery etc.).
8. Old traditional buildings in good condition are used as homestay.
9. Provision of Jharu hitti.
10. Preservation of the existing state of Bhagwati temple complex and Saraswati bazaar.
11. The proposed Heritage Walk in Dhulikhel offers two routes: the Long Route through preserved areas and temple complexes, showcasing cultural heritage, and the Short Route from Saraswati Bazar to Lachhi Chowk and Haka Pukhu, catering to diverse preferences and time constraints for exploring Dhulikhel's heritage.

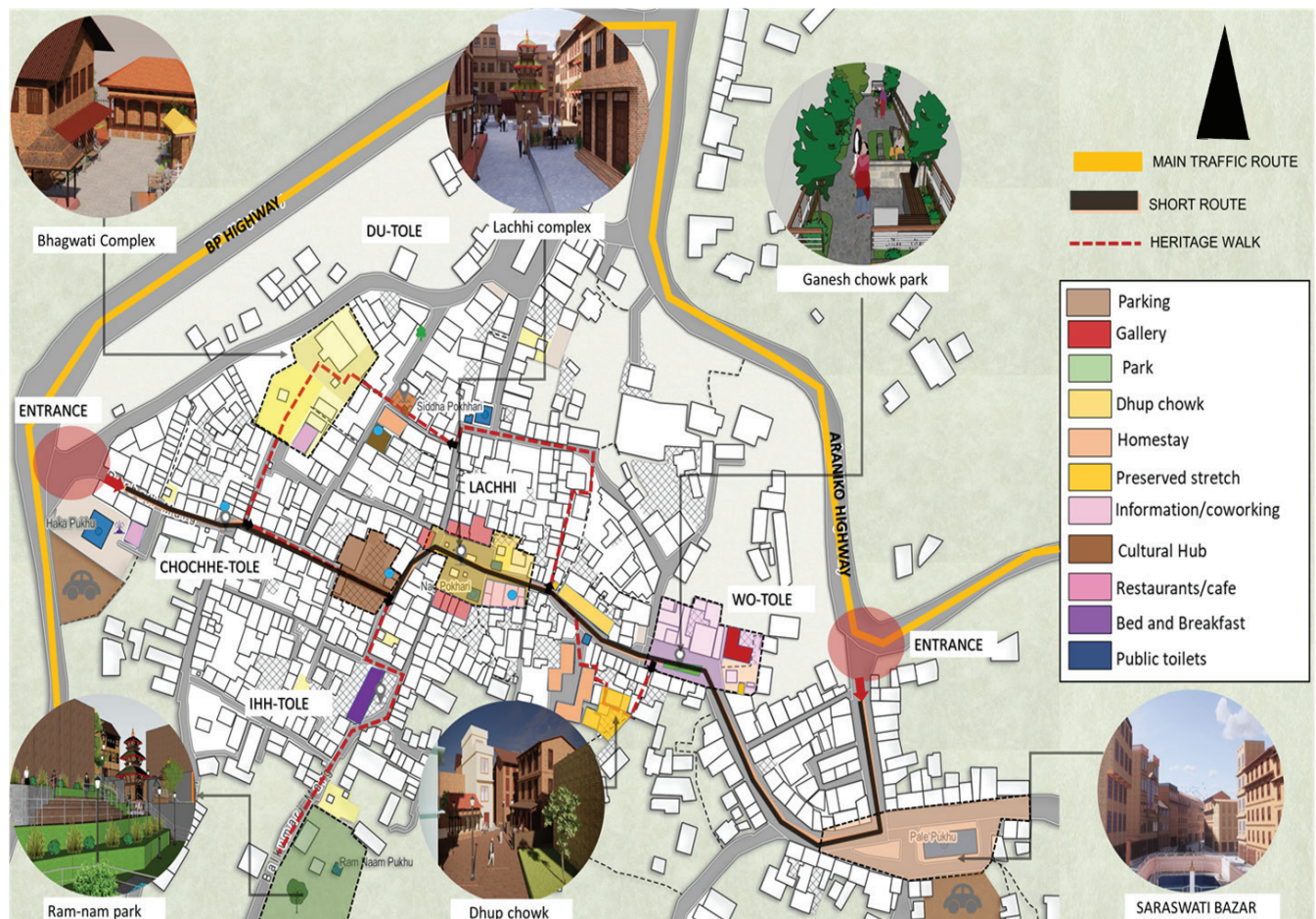


Fig.4 Proposed Master Plan and Conservation effortsv. Guidelines

D. Zone Wise standards and construction

The zoning guidelines for construction in different zones includes:

- In the core settlement, traditional buildings will be preserved using traditional construction methods. This includes recreating RCC building exteriors with brick and wooden windows to maintain the skyline. New constructions will comply with Dhulikhel bylaws and integrate traditional elements.
- In protected monument zones, traditional building façades will be preserved with exposed brick and traditional windows to maintain the skyline. Aging structures will be rebuilt to 3-4 stories, and new constructions will also feature brick façades and traditional windows to preserve the skyline.
- In commercial zones, preserve and restore traditional buildings with traditional methods. Use traditional materials for RCC buildings per bylaws, ensuring new constructions comply with height regulations and include local activity areas.

General rules require adherence to municipal regulations, historic preservation laws, master plans, heritage conservation efforts, community involvement, and building codes.

B. Action Plans and Vision

The action plans and vision include:

Physical Aspect: In the first year, focus on cleaning façades, adding public amenities (toilets, signage, parking, lighting, dustbins), and establishing an information center and gallery. Over the next five years, integrate Jhingati roofs, solar panels, renovate workshops, improve waste management, implement rainwater harvesting, and upgrade utilities. The ten-year plan aims to sustain these improvements.

Social Aspect: In the first year, focus on maintaining heritage structures, cleaning public areas, enforcing preservation bylaws, redeveloping Haka Pukhu, and preserving local crafts. Over the next five years, redesign parks, develop children's play areas, redevelop temple entrances, and preserve cultural heritage. The ten-year plan includes restoring temples, treating RCC façades, reconstructing Geeta Mandir, installing CCTV, and creating a traditional attire photo booth.

Economic Aspect: In the first year, boosting local foods with vocational training and a weekly farmers market. Over five years, repurposing abandoned houses as cafes or homestays, reconstructing Satal, and establishing a women's empowerment center. The ten-year plan includes setting up exhibitions, workshops, eateries, training classes, and revitalizing Haka Pukhu with a book café and souvenir shops.

Proposed pockets

Efforts in Dhulikhel focus on conserving cultural heritage and engaging the community. Plans include constructing the

Lachhi View Cafe and Information Center at Sheshnarayan Chowk for information, amenities, and residential units, with enhanced traditional architecture. Additional projects involve adding a bakery and tea shop to Building A009, expanding D002, and converting D017 into a gallery. Facades of C122, C016, C015a, and C015b will feature traditional jhingati roofs. In Lagan Dabali, a traditional-style building will host cultural events and photo sessions. Ganesh Temple will regain its original structure with a surrounding park. Saraswati Bazar will be restored with brick facades and public amenities. Dhup Chowk will promote local crafts and support community initiatives. Haka Pukhu and Ramnam Pukhu will gain parks and amenities. A satal structure with a book cafe will offer scenic views. Historic bed and breakfasts and homestays will provide cultural experiences and economic benefits. These efforts aim to preserve Dhulikhel's heritage, ensure economic sustainability, and foster community participation.



Fig 5: Entrance of Sesh Narayan Chowk

Conclusions

In summary, this paper proposes a conservation project for Dhulikhel's cultural and historical heritage. It addresses key issues through a master plan emphasizing community engagement, economic revitalization, and architectural preservation. By balancing modernization with traditional values and fostering collaboration among stakeholders, the project aims to secure Dhulikhel's unique heritage and ensure sustainable development for residents and visitors alike.

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