Centre of Excellence for Sustainable Development Goals

SDG Goal 11

A Case Study
on

A Case Study on Community-Driven Transformation of Seth Chuhimal Ki Chatri And Talab

Nuh Rural Haryana

Under the '**CREAT'** initiative
*(**C**ommunity-Driven **R**evitalization for **E**ducation **a**nd **T**ransformation)*
by

School of Architecture and Design
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1. Executive Summary:

This initiative centres on the adaptive reuse of the historic Seth Chuhimal Ki Chhatri and Talab in Nuh, Haryana, transforming the neglected heritage site into a vibrant multifunctional cultural precinct. Guided by the CREAT (Community-Driven Revitalization for Education and Transformation) framework, the project proposes the integration of nature-inspired interventions to develop performance spaces, dining areas, storytelling water features, and a heritage interpretation museum. These revitalizations are designed to celebrate local history, foster cultural engagement, and promote sustainable tourism—while retaining the site's architectural integrity.

This case study explores the community-led adaptive reuse of Seth Chuhimal Ki Chhatri and Talab in Nuh, Haryana, under the CREAT Initiative (Community-Driven Revitalization for Education and Transformation). Once a vibrant estate reflecting Indo-Islamic architectural sensibilities, the site played a central role in the region's social and spiritual life, particularly through its water-centric design. Over time, however, it has suffered significant structural deterioration and socio-cultural disconnection due to urban expansion, neglect, and a lack of conservation awareness.

The CREAT model addresses this decline through a participatory design approach, where local communities act as stakeholders in the revitalization process. Inspired by successful national and international precedents—including Neemrana Fort (Rajasthan), Rajon Ki Baoli (Delhi), and Westergasfabriek (Amsterdam)—the project reimagines the site as a multifunctional public destination. Proposed interventions include acoustically designed performance arenas, interactive storytelling fountains,

nature-inspired exhibition galleries, dining areas under restored chhatris, and locally curated souvenir spaces.

India's architectural heritage has long been intertwined with water—symbolically and practically. Structures like stepwells, kunds, ponds, and chhatris are not merely utilitarian; they represent a deep relationship between nature, spirituality, and communal life. In the rural and semi-urban fabric of North India, such elements were historically central to civic identity and cultural expression.

However, decades of inadequate preservation, lack of funding, and modernization pressures have rendered many of these sites obsolete. In this context, the Chhatri and Talab at Nuh stand not only as architectural relics but as underutilized assets with untapped socio-cultural and economic potential.

The CREAT initiative introduces an adaptive reuse strategy that balances heritage conservation with community development. Through sensitive interior and spatial interventions, the project aims to restore the historical and ecological narrative of the site. By transforming it into an inclusive space for performance, storytelling, leisure, and education, the project seeks to reconnect the community with its heritage while fostering sustainable tourism, cultural pride, and economic upliftment.

2. Rationale: Why the Project Matters

- **Heritage Preservation**: Prevents the irreversible loss of an architecturally and historically significant Indo-Islamic heritage ensemble.
- **Cultural Reconnections**: Restores community linkages to water-centric public architecture once integral to social and ritual life.
- **Experiential Engagement**: Offers contemporary cultural experiences—such as performances, exhibitions, and curated leisure spaces—in a heritage setting.
- **Community-Driven Tourism**: Encourages local pride and livelihood through sustainable tourism, craft revival, and inclusive economic opportunities.

3. Strategic Design Approach: How the Project Will Be Implemented

- **Sensitive Restoration**: Stabilization of deteriorated elements including domes, jalis, and chhatri columns using traditional materials and ASI-approved methods.
- **Nature-Inspired Design**: Introduction of lotus-inspired amphitheatres, sculptural swan installations, and organically contoured pathways to echo the region's ecological character.
- **Water-Based Storytelling**: Integration of interactive musical fountains and narrative installations that reflect local history and myths.

- **Seamless Landscape Connectivity**: Linking architectural elements through soft-scaped paths and rainwater-fed water features that mimic natural topography and ecosystem behavior.

4. Project Objectives

1. **Heritage Conservation & Adaptive Reuse**
   To **conserve and adaptively reuse Seth Chuhimal Ki Chhatri and Talab** as a multifunctional, community-centered cultural and educational hub that honors its historical, architectural, and spiritual significance.
2. **Community Participation & Ownership**
   To **foster participatory planning and implementation**, enabling inclusive decision-making and ensuring **local ownership** of the revitalization process.
3. **Contextual & Nature-Inspired Design**
   To explore **nature-inspired, context-sensitive interior and spatial design interventions** that are respectful of traditional typologies while introducing functional modern programs.
4. **Architectural Integrity & Spiritual Value**
   To maintain and reinforce the **architectural identity and symbolic value** of the original heritage ensemble, ensuring design interventions remain **non-invasive and reversible**, in compliance with **ASI Grade II guidelines**.
5. **Integration of Contemporary Functions**
   To **integrate modern uses** such as dining spaces, open-air performances, exhibitions, and community gatherings into the heritage context without compromising its authenticity.
6. **Eco-Sensitive and Sustainable Design**
   To adopt **eco-sensitive strategies** including water-sensitive urban design, sustainable materials, and microclimate-responsive planning, aligned with both heritage and environmental standards.
7. **Visitor Experience & Spatial Storytelling**
   To enhance **visitor engagement** through **immersive storytelling**, interactive interpretive features, and spatial sequencing that narrates the historical evolution and cultural relevance of the site.
8. **Universal Accessibility & Inclusivity**
   To ensure **universal access**, inclusive design practices, and **seamless transitions** between historic and newly introduced elements—making the site usable for people of all ages and abilities.

5. Methodology

1. Site Analysis & Documentation

- Historical timeline reconstruction of Seth Chuhimal's estate.

- Climatic profiling: *Composite climate zone*, peak summer temperatures > 40°C, annual rainfall ~450 mm.
- Architectural mapping: Detailing structural elements like red/buff sandstone masonry, lime plaster, jali panels, stepwell geometry, and deteriorated zones.

2. Community Participation

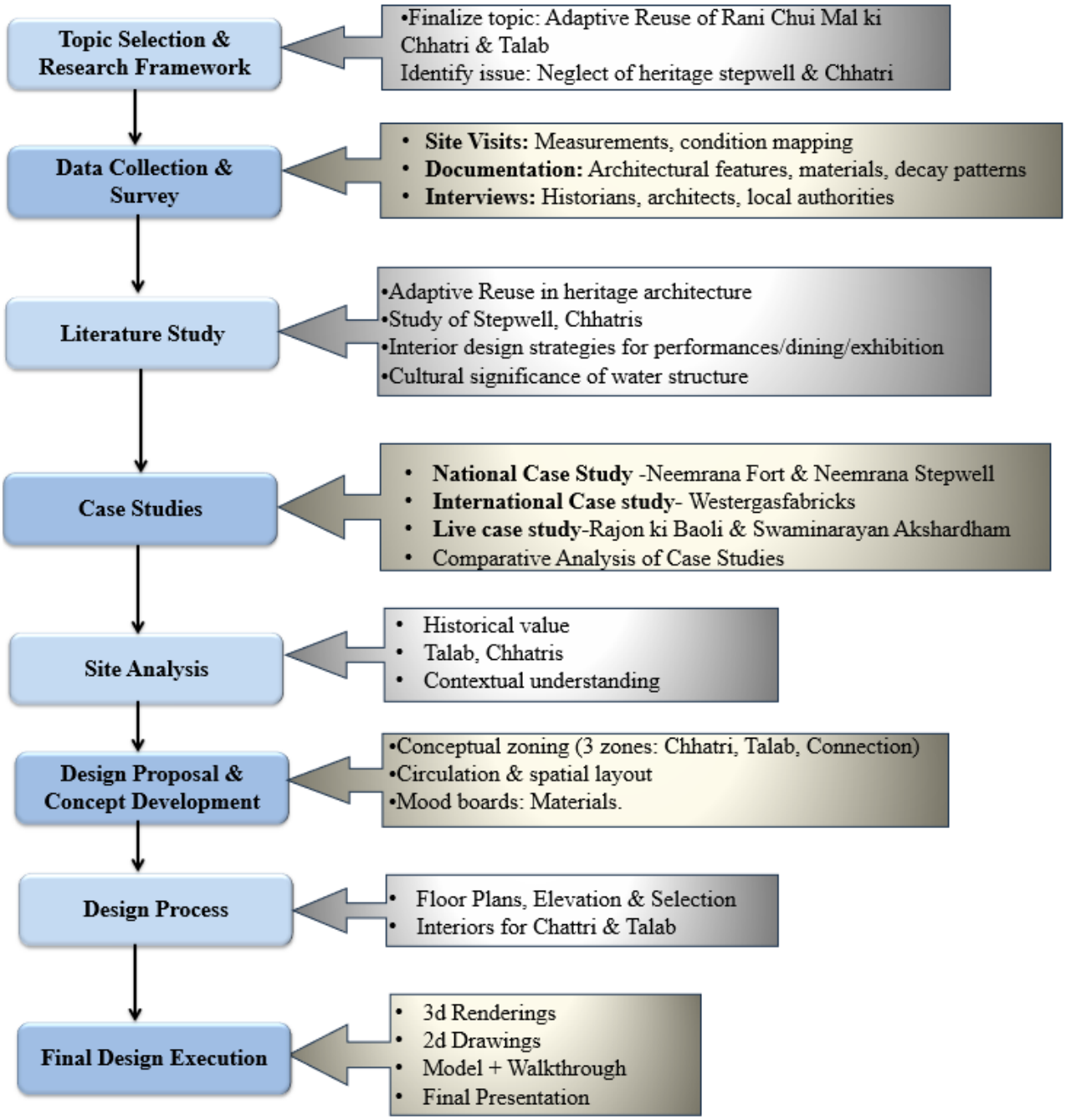
- Focus group discussions with **residents**, artisans, and local vendors.
- Structured interviews with **religious leaders, educators**, and community elders.
- Skill-mapping workshops and storytelling sessions to **embed intangible cultural heritage** in the design process.

3. Literature & Precedent Review

- Conservation principles based on **INTACH Charters**, **ASI norms**, and **ICOMOS guidelines**.
- National case references: **Neemrana Step well**, **Rajon Ki Baoli**, and step well-based revitalizations in semi-urban India.
- Global inspiration: **Westergasfabriek**, Amsterdam—transformation of industrial ruins into a creative-cultural precinct.

4. Design Development

- Masterplan with spatial zoning:
    - *Sacred core*: Revived Talab and water rituals.
    - *Ceremonial shell*: Chhatris for dining, exhibitions, and storytelling.
    - *Public edges*: Functional support zones including rest areas, souvenir kiosks, and landscape buffers.



6. Scope:

- Adaptive reuse of heritage spaces while preserving the original fabric of the monument.
- Designing performance and exhibition interiors with culturally themed lighting, seating, and spatial flow, while integrating dining spaces under Chhatris that harmonize heritage aesthetics with modern functionality.
- Developing a souvenir shop with local art and traditional design elements.
- Enhancing visitor flow and ambiance through interior-led landscape planning.

7. Thematic Analysis

a. Community Leadership and Heritage Management

• Central role of community leadership: Community leadership is reported as a central theme in studies examining both economic and heritage revitalization.
• Self-help groups and local leaders: In Nizamuddin (2014) and Kapoor (2019), self-help groups (SHGs) and local women leaders (such as pradhan [village head], federation members) are described as pivotal in organizing, decision-making, and mobilizing community resources.
• Stakeholder engagement in heritage management: Raotole and Garg (2024) report the importance of stakeholder engagement, including local communities, government bodies, and non-governmental organizations (NGOs), in heritage management. Formal mechanisms such as consultations, workshops, and public hearings are described, as well as informal strategies like community-led initiatives and cultural events.
• Barriers to participation: Yadav (2024) notes that political power can limit genuine community participation, and community nonparticipation remains a challenge in some contexts.
Cultural Identity and Social Transformation
• Erosion and transformation of identity: Yadav (2024) documents the erosion of community identity and intangible heritage due to urbanization, with traditional crafts and water heritage structures under threat.
• Empowerment and social change: Kapoor (2019) finds that participation in self-help groups enhances women's self-confidence, independence, and social participation, contributing to shifts in community norms and identity.
• Heritage-led regeneration: Raotole and Garg (2024) report that heritage-led regeneration strengthens social networks and preserves cultural identity, but also note risks of gentrification and displacement.
• Conceptual overview: Loulanski (2006) provides a conceptual overview of how heritage can serve as a tool for social cohesion and revitalization, though without empirical detail.

8. Impact of Adaptive Reuse on Surrounding

Reusable and adoptable structures ought to have a bigger effect on the environment. Rather from being considered greenfield, these locations are referred to as brownfields because the structures must be cleared of any potential chemical pollution before they may be demolished or used for typical residential or commercial purposes. A well-executed adaptive reuse project can revitalize a neighborhood, promote growth, and attract historical tourists to the city.

9. What is ASI?

The Archaeological Survey of India (ASI), under the Ministry of Culture, is the premier organization for the archaeological research and protection of the cultural heritage of the nation. Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI. Besides, it regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also regulates the Antiquities and Art Treasure Act, 1972. For the maintenance of ancient monuments and archaeological sites and remains of national importance the entire country is divided into 24 Circles. The organization has a large work force of trained archaeologists, conservators, epigraphist, architects and scientists for conducting archaeological research projects through its Circles, Museums, Excavation Branches, Prehistory Branch, Epigraphy Branches, Science Branch, Horticulture Branch, Building Survey Project, Temple Survey Projects and Underwater Archaeology Wing.

Table 1: Grading for Heritage Buildings

S.NO		GRADE 1	GRADE 2	GRADE 3
1.	Definition	Heritage Grade-I comprises buildings and precincts of national or historic importance, embodying excellence in architectural style, design, technology and material usage and/or aesthetics they may be associated with a great historical event, personality, movement or institution. They have been and are the prime landmarks of the natural sites that shall fall within Grade-I	Heritage Grade-II (A&B) comprises of buildings and precincts of regional or local importance possessing special architectural or aesthetic merit, or cultural or historical significance though of a lower scale than Heritage Grade-I. They are local landmarks, which contribute to the image and identity of the region.	Heritage Grade-III comprises building and precincts of importance for townscape. These contribute to determining character of the locality and can be representative of lifestyle of a particular community or region
2.	Objective	Deserves careful preservation	Deserves intelligent conservation.	Deserves intelligent conservation

3.	Scope of change	No interventions be permitted either on exterior or interior of the heritage building or natural features unless it is necessary in the interest of strengthening and prolonging the life of the buildings/or precincts or any part or features thereof. For this purpose, absolutely essential and minimum changes would	Grade-II(A): Internal changes and adaptive re-use may by and large be allowed but subject to strict scrutiny. Care would be taken to ensure the conservation of all special aspects for which it is included in Heritage GradeII. Grade-II(B): In addition to above, extension or additional building in	Internal changes and adaptive reuse may by and large be allowed. Changes can include extensions and additional buildings in the same plot or compound. However, any changes should be such that they are

10. Applicable Design Standards and Guidelines:

When designing performance spaces, adherence to specific standards and guidelines ensures structural integrity, functionality, accessibility, and sustainability. Below is a detailed explanation of the relevant standards and their application in performance space design.

1. **National Building Code (NBC) of India 2016**
   The National Building Code (NBC), formulated by the Bureau of Indian Standards (BIS), provides comprehensive guidelines for building construction across various categories, including public spaces like performance venues.
   a. **Key Provisions:**
      i. **Outdoor Public Spaces**: NBC mandates adequate open spaces around buildings for ventilation, safety, and accessibility. For assembly buildings like auditoriums, a minimum front open space of 12 meters and side spaces of 6 meters are required.
      ii. **Ramps and Exits**: Performance spaces must include ramps with appropriate slopes for accessibility and multiple exits to ensure safe evacuation during emergencies.
      iii. **Fire Safety**: NBC emphasizes fire-resistant materials, fire alarms, sprinklers, and evacuation protocols tailored for high-occupancy assembly buildings (*NBC 2016 Volume-1* , n.d.).
   b. Application:

i. Ensures compliance with safety standards for large gatherings.
ii. Facilitates smooth movement of audiences through well-designed exits and ramps.

2. **Universal Accessibility Guidelines**

Universal Accessibility Guidelines prioritize inclusivity by ensuring that buildings are accessible to differently abled individuals.

a. **Key Provisions:**
   i. **Differently Abled Access**: Ramps with non-slip surfaces, elevators with braille buttons, and designated seating areas are mandatory.
   ii. **Signage**: Clear signage in multiple formats (visual, tactile) to guide users effectively.
   iii. **Restrooms**: Accessible restrooms designed with grab bars and adequate turning space.

b. **Application:**
   i. Promotes inclusivity by accommodating diverse audience needs.
   ii. Enhances usability for performers and crew members with disabilities.

3. **Performance Space Standards**

Performance spaces require specific design standards to optimize functionality and audience experience.

a. **Key Provisions:**
   i. **Minimum Dimensions**: Defined dimensions for stages, backstage areas, seating arrangements, and aisles ensure comfort and efficiency.
   ii. **Sightlines**: Tiered seating layouts minimize obstructions and provide clear views of the stage.
   iii. **Acoustic Treatments**: Use of sound-diffusing panels, absorptive materials, and adaptable acoustics tailored to different types of performances.

b. **Application in Performance Spaces:**
   i. Enhances audience engagement through superior visibility and sound quality.
   ii. Supports diverse performance types by providing adaptable infrastructure.

4. **Landscape Guidelines**

Landscape design complements performance spaces by creating aesthetically pleasing environments while addressing ecological concerns.

a. **Key Provisions:**

i. **Pond Restoration**: Incorporating water features like ponds or fountains enhances visual appeal while promoting rainwater harvesting.

ii. **Softscape Elements**: Use of trees, shrubs, and grass improves microclimate conditions around the venue.

iii. **Hardscape Elements**: Paved pathways and outdoor seating areas ensure ease of movement13.

b. **Application in Performance Spaces:**

i. Elevates the aesthetic value of outdoor areas surrounding performance venues.

ii. Contributes to sustainability through eco-friendly landscaping practices.

5. **Heritage Guidelines (ASI/UNESCO)**

For performance spaces located in heritage sites or historical buildings, adherence to conservation norms is critical.

a. **Key Provisions:**

i. **Structural Conservation**: Preservation of architectural integrity while integrating modern facilities.

ii. **Material Usage**: Use of materials compatible with the original structure to maintain authenticity.

iii. **Cultural Sensitivity**: Designs should respect the historical significance of the site12.

b. **Application in Performance Spaces:**

i. Ensures harmonious integration of modern performance facilities within heritage contexts.

ii. Protects cultural heritage while enabling contemporary use.

Table-2: Standards for Area Requirements:

S.No.	Space	Recommended Area / Dimension	Sources / References
1.	Entrance Lobby / Foyer	Area: 6–10 m^2 Min width: 1.5 m	NBC 2016 Part 3 (Section 4.1.2) Universal Accessibility Guidelines – CPWD 2016
2.	Reception	Area: 6–12 m^2 Counter height:	NBC 2016 Part 9, Section 2.2

	Area	Max 800 mm Turning radius: 1500 mm	CPWD Guidelines 2016 – Accessible Counter Design
3.	Waiting Area	1.5–2 m^2 per person Total: 9–12 m^2 for 6 people	Neufert, Building Design Data 39th Ed. (Page 216) NBC 2016 Part 9
4.	Exhibition Area	3–5 m^2 per visitor Ceiling Height: Min 3 m Circulation: Min 1.5 m	Neufert (Page 226) NBC 2016 Part 3 & Part 4 – Museums/Assembly Buildings
5.	Art Gallery	30–100 m^2 Wall Display Height: 1000–1500 mm Wall length: 8–15 m	Neufert (Pages 222–226), NBC 2016 Part 4
6.	Storeroom (General)	10–20 m^2 Height: 2.4–3 m	NBC 2016 Part 4 – Storage & Services Neufert (Page 190–192)
7.	Fig Booth (Chhatri)	4–6 m^2 per booth Front clearance: 1.2 m	Neufert – Kiosk standards Universal Accessibility Guidelines – CPWD 2016
8.	Souvenir Shop	20–40 m^2 Aisle width: 1.2–1.5 m Display height: 400–1200 mm	Neufert (Page 243) – Retail Shops NBC 2016 Part 9 CPWD Accessibility Guidelines
9.	Dining Area (Chhatri Café)	1.4–1.8 m^2 per person incl. circulation 8–12 m^2 per Chhatri (4–6 people) Table clearance: 900 mm	Neufert – Restaurants (Page 236) NBC 2016 Part 9 Accessibility Guidelines – Dining Standards
10.	Performance Stage	Stage: 60–100 m^2 Width: 10–12 m Depth: 6–10 m Ramp: 1:12 slope, 900 mm width	NBC 2016 Part 4 – Assembly Buildings Neufert (Page 254) – Auditorium Stage Standards CPWD Accessibility Guidelines
11.	Kitchen + Cold/Hot Storage	Kitchen: 15–25 m^2 Cold storage: 8–12 m^2 Hot holding: 4–6 m^2	NBC 2016 Part 8, Section 3 Neufert (Page 238) – Commercial Kitchen Standards
12.	Mechanical/Plant Room	10–15 m^2 Height: 2.8–3 m Ventilation required	NBC 2016 Part 4 – Mechanical Services
13.	Public Toilets (Universal)	Male/Female: 12–15 m^2 combined Accessible WC: 4.5–6 m^2 Door width: 900 mm Turning radius: 1500 mm	NBC 2016 Part 3 & Part 9 CPWD Universal Accessibility Guidelines 2016 (Govt of India)

14.	ASI Considerations	No anchoring or drilling in heritage walls No plumbing inside protected monument Only reversible structures allowed within 100 m radius	ASI (Archaeological Survey of India) Guidelines for Protected Monuments & Sites

11. About Nuh

Nuh, presently the administrative headquarters of **Nuh District** (formerly Mewat), is located in **southern Haryana**, approximately 70 km south of Delhi. Geographically situated within the **Aravalli foothills**, the region forms a critical ecological and cultural corridor between Delhi, Alwar, and Bharatpur. Historically part of the **Mewat region**, Nuh has long been a center of **Meo Muslim culture**, blending **Rajput**, **Islamic**, and **vernacular traditions**.

The region has a layered past dating back to ancient and medieval periods, enriched by influences from the **Delhi Sultanate**, **Mughals**, and **local Rajput chieftains**. While not widely known in mainstream historical narratives, Nuh holds significant archaeological and architectural value.

12. Heritage Significance of Nuh

1. Indo-Islamic Architectural Legacy

Nuh's architectural heritage reflects a fusion of **Persian-Islamic** and **Rajput-Haryanvi** traditions. Typical features include:

- Domed **chhatris** (pavilions) supported by stone columns.
- **Stepwells (baolis)** and **talabs (ponds)** for water harvesting and ritual bathing.
- **Jali work**, **cusped arches**, and **ornamental niches** signifying Mughal influences.

These structures were typically integrated with **spiritual**, **social**, and **hydrological functions**, particularly in areas like **Seth Chuhimal Ki Chhatri and Talab**, which served as community hubs for ritual, leisure, and gathering.

2. Historical Landmarks

- **Shaking Minarets of Ferozepur Jhirka**: An example of architectural engineering using resonance principles.
- **Kotla Fort Ruins**: A medieval hilltop citadel that once served as a watchtower over Mewat's plains.
- **Sheikh Musa Complex**: Known for its dome and underground chambers, this site is significant for its spiritual heritage and unique acoustics.

3. Seth Chuhimal Ki Chhatri and Talab

This site, the focus of the present case study, exemplifies **syncretic Indo-Islamic architecture**. The chhatri complex—constructed in red and buff sandstone—features:

- Multiple domes supported on **finely carved stone columns**.
- **Perforated jalis** enabling cross-ventilation.
- A **Talab (pond)** designed in the traditional water-harvesting typology with descending steps and retaining walls.

Together, these elements reflect a sophisticated understanding of **climatic adaptability**, **water conservation**, and **aesthetic harmony**—hallmarks of northern Indian heritage design.

Nuh's cultural identity is closely tied to the **Meo Muslim community**, a syncretic group with Rajput ancestry and Islamic religious practices. Their oral traditions, folk music, and seasonal festivals often center around heritage sites—though much of this intangible heritage is at risk due to **urban migration**, **loss of interest among youth**, and **physical decay of cultural spaces**.

Current Challenges at heritage sites

- **Neglect and encroachment** on historical sites due to lack of formal protection.
- **Absence of tourism infrastructure**, resulting in under-recognition.
- **Environmental degradation**, including siltation of water structures and structural collapse from unchecked weathering.
- **Limited documentation and research** on the heritage assets of Nuh, except for some scattered mentions in ASI reports and local gazetteers.

Significance for Conservation

Given its untapped heritage potential, **Nuh presents an opportunity for low-impact, community-driven conservation models**. Initiatives like **CREAT** aim to revive both tangible and intangible heritage through **adaptive reuse**, **participatory planning**, and **culturally sensitive design**—re-establishing Nuh as a regional nucleus of historical and cultural vitality.

13. About Site:

a. **Location-**Old Nallah Road, Hamid Colony, Nuh, Haryana – 122107, India
b. **Historical Period-**Late 18th to 19th Century

c. **Ownership and Jurisdiction-**Owned and maintained by the Department of Archaeology and Museum, Government of Haryana
d. **Site Category-**Heritage Monument (Water Architecture and Residential Complex)
e. **Total Site Area-**Approximately 10 Acres

Fig 1: Seth Chuhimal ka Talab
Source: Author

14. Location and Accessibility

Fig 2: Location of the site, Seth Chuhimal ka Talab
Source: Author

Fig 3: Site area, Seth Chuhimal ka Talab
Source: Author

15. Accessibility

Bus Station-	Nuh Bus Station (2.4 km) – Direct access to Sohna, Palwal, and Gurgaon
RailwayStation-	Palwal Railway Station (36.3 km) – Nearest mainline connectivity
Metro Station-	Millennium City Centre, Gurgaon (49.6 km) – Via SH-13A
Airport-	Indira Gandhi International Airport, Delhi (61.7 km) – 2-hour drive

Fig 4: Accessibility of Site
Source- Google map

15.1 Nearby Landmarks and Institutions:

- Modern Mothers Pride School – 350 meters
- Pandurang Dham Temple – 400 meters
- Government Senior Secondary Girls School – 420 meters
- Yasin Meo Degree College – 700 meters
-

16. Site Survey:

The Seth Chuhimal Ki Chhatri and Talab complex in Nuh, Haryana, was systematically inspected to assess its structural integrity, historical relevance, and potential for adaptive reuse. The inspection focused on the condition of architectural elements such as the domed chhatris, haveli structure, and the stepped water tank. The team documented weather-induced deterioration, blocked access routes, fading ornamentation, and vegetation overgrowth.

Photo 1: Team SOAD at the site

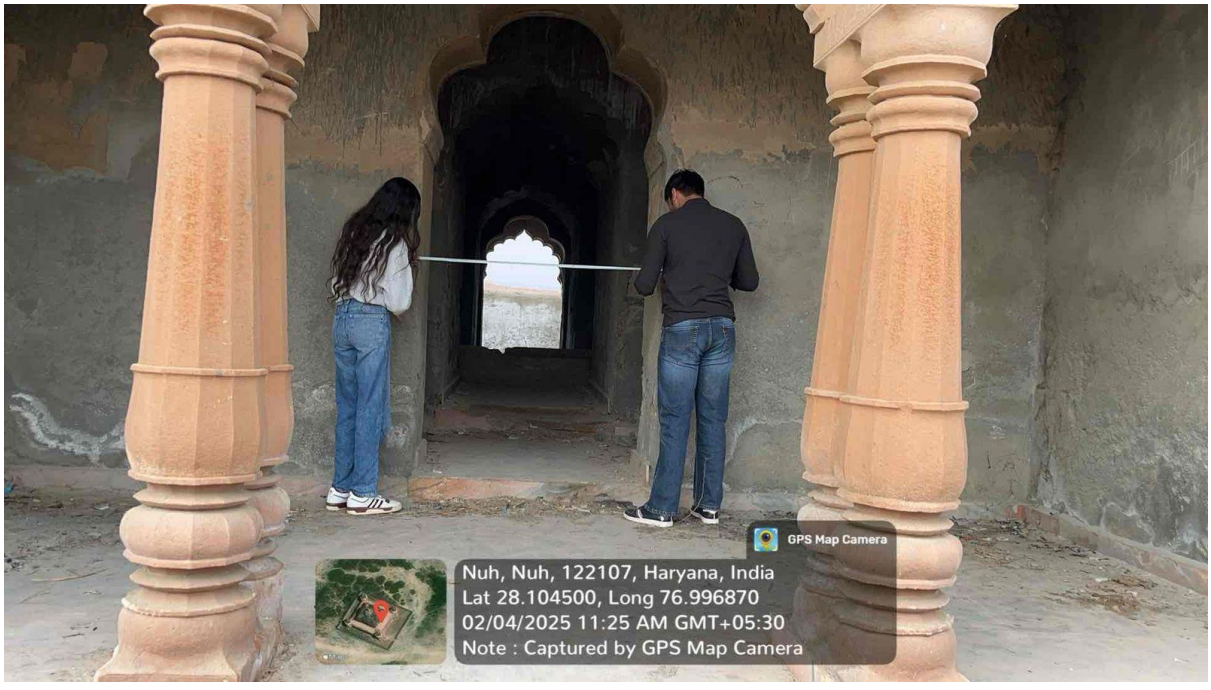


Photo 2: Team SOAD at the site taking audit data

The Seth Chuhimal ki Chattri & Talab was commissioned in the late 18th century by Seth Chuhimal, a wealthy trader and philanthropist from the region. The design reflects a refined understanding of Rajputana and Mughal architectural traditions, integrating aesthetic elegance with functional ingenuity. The complex includes:

- A step well-inspired Talab (pond), acting as a rainwater harvesting system.
- Eight symmetrical Chhatris surrounding the Talab for rest, prayer, and gatherings.
- A grand two-storied Haveli, signifying wealth and stature.

The Chhatris are strategically aligned, potentially in accordance with Vastu principles, ensuring harmony with cardinal directions. The water body acted as both a functional water storage tank and a visual anchor, providing scenic beauty and climatic comfort.

The site was not only a residence but also a social and cultural hub for hosting:

- Religious rituals and spiritual gatherings
- Musical performances and poetry recitals
- Seasonal fairs, including Holi, Basant Panchami, and other local festivities

The water-centric design symbolizes purity, regeneration, and the deep connection between nature and built form in Indian heritage.

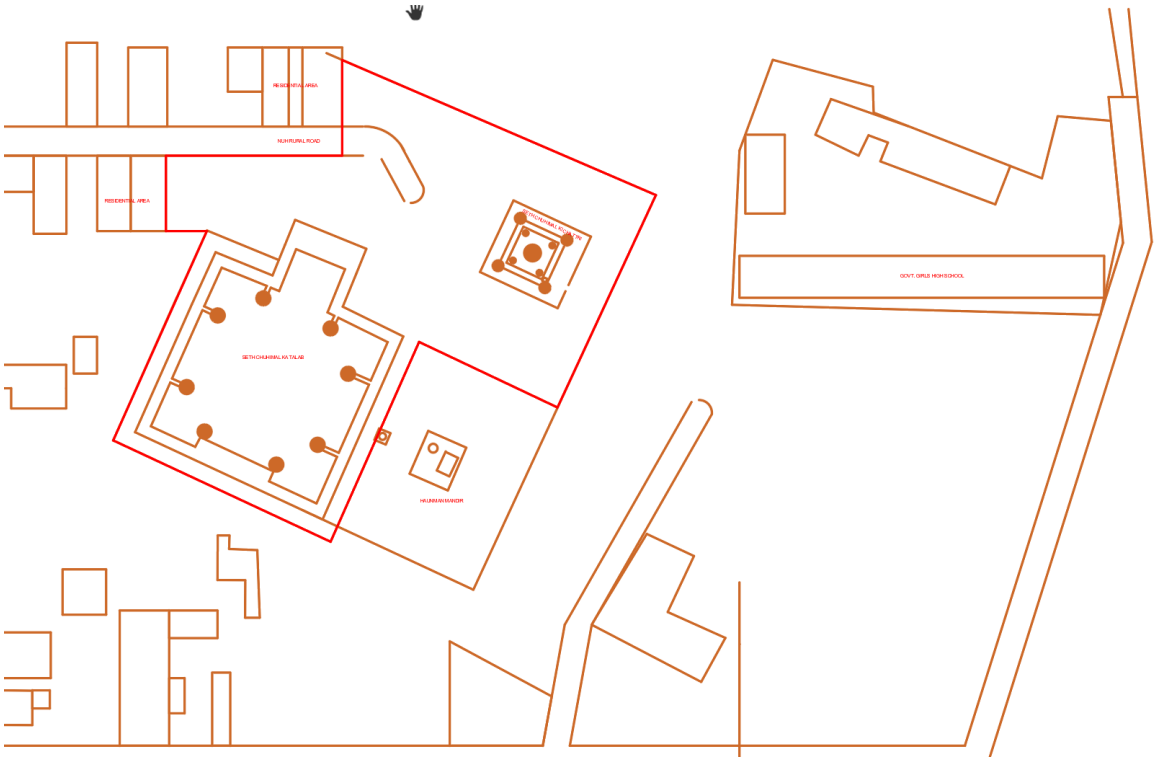


Fig 5: Site of Seth Chuhimal ki Chattri
Total Site Area: 12,421.79 m^2 (or approximately 1.24 hectares)
Source- Author

16.1 Timeline-

Late 18th & 19th Century- Seth Chuhimal built a private complex in Nuh, featuring a stepped water tank, eight octagonal chhatris, a grand two-storied red sandstone chhatri with floral designs, and two historic temples.

20th Century- The complex remained under the care of Seth Chuhimal's descendants, who maintained its structures and surroundings. The talaab was kept clean and was fed by a perennial canal,preserving its historical water management system.

21st Century- The talab is surrounded by dense vegetation, while the chhatri is locked to prevent misuse. Some repairs have been made, preserving the Chuhimal Talab and Chhatri Complex as a testament to Nuh's historical and architectural legacy.

16.2 Climatic and Environmental Context:

Climate Zone: Composite (extreme summers, moderate monsoon, cold winters)
Average Summer Temperature: 40–45°C
Average Winter Temperature: 6–15°C
Rainfall: ~450 mm annually (mostly July–September)

16.3 Architectural Elements:

A. Seth Chuhimal ki Chhatris

Architectural Style: Indo-Islamic (Rajput-Mughal synthesis)
Material: Red and buff sandstone, with intricate floral carvings

Fig 6- Seth ChuhiMal ki Chattri
Source-Author

Features:

Carved brackets and overhanging eaves (chhajjas)

Cusped arches and stone latticework (jali)

Elevated plinths to withstand monsoon water

Function:

Acted as shaded resting places for travelers

Hosted ceremonial and contemplative activities

Aesthetic elements adding verticality and rhythm to the landscape

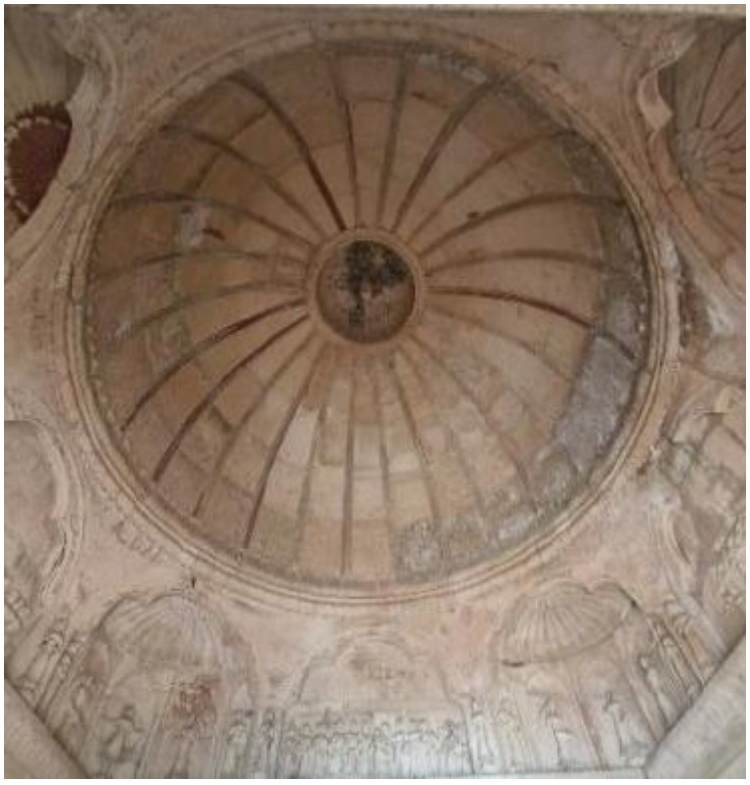


Fig.7: Domes supported by finely carved stone columns
Source- Author

Fig.8: Cusped arches and intricate basket

Fig.8: Perforated jali screens enabling cross-ventilation
Source- Author

Fig 9: The Façade detailed stone carvings and pattern brickworks, reflecting craftsmanship
Source- Author

B. Seth Chuhimal ka Talab

Design: Rectangular stepped tank with descending stairs on all sides

Construction Technique: Lime plaster, dressed sandstone, interlocking masonry

Fig 10: Seth Chuhi Mal ka Talab
Source-Author

Ecological Role:

- Harvested rainwater from the surrounding catchment
- Supported microclimate regulation in arid summers
- Facilitated water-based religious rituals and ablutions

Condition:

- Currently overgrown with vegetation and algae
- Entry points blocked due to safety concerns

16.4 Past and Present Use

Historical Usage

- Functioned as a private estate and water retreat
- Served as a venue for cultural events, festivals, and ritual gatherings
- Supported religious practices and communal socialization

Present Condition

- Structures show visible damage from water seepage, blocked access points, vegetation overgrowth, and fading ornamentation
- No systematic conservation is currently implemented
- Site remains closed to the public, diminishing its tourism and educational value

Fig 11: Balanced layout for aesthetics and functions

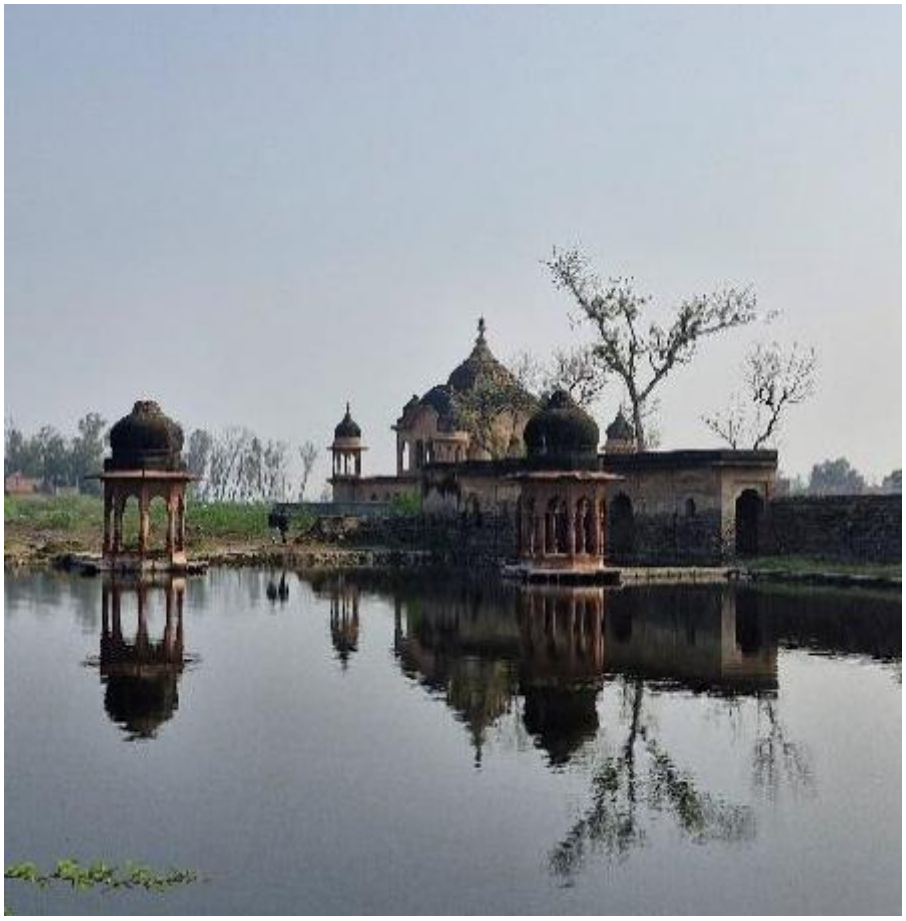


Fig12: Designed for rain harvesting
Source-Author

Fig13: Step well-style reserved with descending stone step.
Source-Author

Fig 14: Structural Deterioration
Source-Author

Fig 15: Blocked Entrances
Source-Author

Fig 16: Blocked Wall
Source-Author

Fig 17: Water Damage & stagnation
Source-Author

Fig 18: Structural Damage
Source-Author

Fig 19: Fading Ornamentation
Source-Author

Socio-Economic Context and Community Impact

- The site has strong ties with the local **Meo Muslim community** and **trading class heritage**.
- Served as a **symbol of prosperity and communal harmony**, reflecting coexistence through its Indo-Islamic design.
- Nearby schools and religious sites make it a potential **heritage education and outreach center**.
- Revival of the site could generate **local employment**, **cultural pride**, and **tourism-driven micro economy**.

SWOT ANALYSIS

Strengths	Weaknesses	Opportunities	Threats
Rich architectural language reflecting Rajput-Mughal fusion	Structural deterioration due to lack of regular maintenance	Adaptive reuse for performances, exhibitions, dining, and community events	Pollution, deforestation, and ecological damage in surrounding green zones
High cultural and historical significance	Lack of public awareness and limited tourism promotion	Integration into regional cultural tourism circuits	Climate change impacts (e.g., reduced water levels, increased thermal stress)
Unique landscape-integrated design with a functional Talab	Inadequate infrastructure and poor accessibility	Scope for educational programs, heritage walks, art residencies	Risk of irreversible architectural damage due to long-term neglect
Large site area (12,421.79 m^2) enabling flexible adaptive reuse	No dedicated conservation authority managing upkeep	Storytelling features and interpretive tourism modules	Bureaucratic delays in heritage restoration funding and approvals
Community connection potential for participatory revitalization	Absence of heritage interpretation tools and visitor amenities	Community-based preservation models involving local stakeholders	Urban encroachment and insensitive development in adjacent areas

Detailed Site Inspection and Revitalization Report

Project Title: Community-Driven Transformation of Seth Chuhimal Ki Chhatri and Talab, Nuh Rural Haryana
Initiative: CREAT (Community-Driven Revitalization for Education and Transformation)
Institution: School of Architecture and Design, K.R. Mangalam University
Academic Year: 2024-25

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1. Site Inspection

The inspection of the Seth Chuhimal Ki Chhatri and Talab complex was conducted with a focus on architectural integrity, structural health, accessibility, and adaptive reuse potential. The primary structures, including the domed chhatris, haveli, and rectangular talab, were physically surveyed and visually documented. The inspection revealed significant weather-induced deterioration, blocked access routes, vegetative overgrowth, and fading ornamentation. Historical and architectural features such as carved jaalis, cusped arches, and stone plinths were assessed for conservation feasibility.

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2. Building Inspection

The building components exhibited various degrees of decay:

- **Chhatris**: Water seepage and biological growth were prevalent. Stone brackets and overhangs showed signs of erosion.
- **Haveli**: Displayed visible cracks, broken jaalis, and discolored stonework. Interiors were inaccessible due to debris and unsafe conditions.
- **Talab**: The traditional stepped tank was filled with stagnant water and overgrown with algae. Access points were barricaded for safety.

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3. Building Structure and Layout

The built ensemble follows a symmetrical and spatially cohesive layout:

- **Core Water Body**: Central stepped talab aligned with cardinal directions.
- **Eight Chhatris**: Octagonally arranged around the pond, possibly influenced by Vastu principles.
- **Two-Storied Haveli**: Anchors the site along a ceremonial axis.
- **Functional Design**: The complex allowed for water harvesting, social congregation, and spiritual rituals.

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4. Building Structure Audit

A structural audit confirmed multiple vulnerabilities:

- Cracked stone members and weakened joinery in chhatris.
- Foundation shifts and root damage in areas adjoining vegetation.
- Disintegration of lime plaster, exposing core materials.
- Failed rainwater channels and non-operational drainage systems.
- Blocked paths posing hazards for movement.

5. Recommendations for Building Restoration

Immediate Measures:

- Structural stabilization using ASI-compliant lime mortar techniques.
- Removal of invasive vegetation and cleaning of water channels.
- Temporary supports for damaged columns and domes.

Short-Term Interventions:

- Reinstallation of traditional jalis.
- Restoring carved elements and painted patterns using traditional methods.
- Controlled desilting and ecological remediation of the talab.

Long-Term Conservation:

- Adaptive reuse for cultural events, community dining, and exhibitions.
- Installation of non-invasive lighting and signage for wayfinding.
- Integration of accessibility features—ramps, tactile paths, and handrails.

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6. Survey

A multi-pronged survey strategy was employed:

- **Historical Documentation**: Timeline reconstruction based on archival sources.
- **Architectural Mapping**: Detailed drawings and material assessment.
- **Community Engagement**: Focus groups, interviews, and workshops with artisans, elders, youth, and religious leaders.
- **Ecological Profiling**: Assessment of rainfall patterns, plant cover, and soil health.

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7. Initiatives Undertaken by the School of Architecture and Design

- Conducted comprehensive site documentation using photogrammetry and hand-drawn techniques.
- Hosted participatory design workshops under the CREAT initiative.
- Developed a contextual master plan with zones for sacred, ceremonial, and public use.
- Integrated design precedents and national standards (NBC, CPWD, ASI guidelines).
- Proposed nature-inspired features like lotus amphitheatres and narrative fountains.

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8. Outcomes and Impact

- **Cultural Revival**: Renewed community connection with heritage spaces.
- **Tourism Enablement**: Foundation for integrating into local heritage circuits.
- **Skill Development**: Engagement with local craftspeople for restoration.
- **Academic Collaboration**: Created interdisciplinary learning modules for students.

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9. Key Findings

- Structural damage is significant but reversible.
- Strong local community interest exists, yet lacks capacity-building support.
- Lack of formal tourism or heritage infrastructure is a critical gap.
- Ecological functions of the talab can be revived with minimal intervention.

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10. Conclusion

The Chhatri and Talab complex in Nuh represents a rare Indo-Islamic water-heritage ensemble with untapped potential. Its strategic adaptive reuse can catalyze local development, foster pride, and serve as a living laboratory for heritage conservation. The CREAT model successfully demonstrates the synergy between academia, community, and cultural sustainability.

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11. Recommendations

- Create a Heritage Management Committee involving community stakeholders.
- Secure multi-source funding including government grants and CSR support.
- Develop phased implementation starting with one chhatri and pond edge.
- Introduce heritage education and storytelling programs in nearby schools.
- Establish an interpretation center for visitors and researchers.

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12. Future Measures

- Launch pilot restoration works as demonstration units.
- Form Self-Help Groups (SHGs) and Youth Clubs for site maintenance.
- Digitize oral history and architectural documentation.
- Expand partnerships with cultural institutions and tourism boards.
- Initiate bi-annual audits to monitor structural and ecological resilience.

TIMELINE OF CHUHI MAL KA TALAB & CHATTRI :

Late 18th Century

Seth Chuhimal built a private complex in Nuh, featuring a stepped water tank, eight octagonal chhatris, a grand two-storied red sandstone chhatri with floral designs, and two historic temples.

20th Century

The complex remained under the care of Seth Chuhimal's descendants, who maintained its structures and surroundings. The talaab was kept clean and was fed by a perennial canal,preserving its historical water management system.

19th Century

Architectural Significance:
The main chhatri showcased a blend of Rajput and Mughal architectural styles, featuring cusped and trefoil arches.

The talab is surrounded by dense vegetation, while the chhatri is locked to prevent misuse. Some repairs have been made, preserving the Chuhimal Talab and Chhatri Complex as a testament to Nuh's historical and architectural legacy.

21st Century

Chattri

The haveli showcases a blend of Rajput and Mughal styles, evident in its structural design and detailing.

CHUIHMAL KI CHATTRI

First floor room

Decorative arches and intricately carved jharokhas enhance the aesthetic appeal.

Small domed pavilions, supported by carved pillars, add to the grandeur and provide shade.

Dome

Courtyard

A traditional open courtyard ensures ventilation and natural light within the structure.

Stone craving on wall

The façade features detailed stone carvings and patterned brickwork, reflecting craftsmanship.

Balanced layout for aesthetics and function.

CHUIHMAL KA TALAB

Eight chhatris for resting and gatherings.

Site Inspection:
Building Inspection:
Building Structure and Layout:
Building Structure Audit:
Recommendations for building
Survey:
Initiatives Undertaken by the School of Architecture and Design
Outcomes and Impact
Key Findings
Conclusion
Recommendations
Future Measures

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