

“Heritage Conservation of Pune City: Policies, Challenges, and Planning Strategies”

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Abstract - Heritage conservation plays a vital role in preserving the cultural identity, architectural legacy, and historical significance of urban settlements. Pune, known as the cultural capital of Maharashtra, possesses a rich heritage reflected through forts, Wada architecture, temples, colonial buildings, educational institutions, and traditional urban precincts. Rapid urbanization, infrastructure expansion, commercialization, and population growth have increasingly threatened these heritage assets.

This report examines the evolution of heritage conservation practices in Pune city and analyses the legal, administrative, and planning frameworks adopted for protecting its cultural heritage. The study highlights the role of government agencies, development control regulations, heritage committees, and citizen participation in safeguarding historic structures and precincts. The report also discusses major heritage sites, conservation initiatives, challenges faced during implementation, and future planning strategies for sustainable urban heritage management.

The report concludes that effective heritage conservation requires integrated urban planning, public awareness, adaptive reuse strategies, financial incentives, and strong legislative support to ensure the preservation of Pune's historical identity for future generations.

INTRODUCTION

Heritage conservation is the strategic framework used to protect, preserve, restore, and adaptively reuse historical assets. These assets include individual buildings, ancient monuments, historic urban precincts, and regional cultural landscapes that hold deep archaeological, architectural, or artistic value. In modern urban planning, conservation is no longer viewed merely as the passive preservation of old structures. Instead, it serves as a critical component of dynamic urban development.

Preserving physical heritage directly retains a city's tangible social memory and cultural identity. Beyond its cultural value, heritage conservation functions as a potent driver for economic development. Well-managed historic cores attract global tourism, stimulate local commerce, and provide unique spaces for community education and artistic expression.

Historical Evolution and Architectural Character of Pune

Pune is universally recognized as the cultural capital of Maharashtra, a status anchored by its prominent role as a major political and administrative center during the Maratha

Empire and the subsequent rule of the Peshwas. This rich history has endowed the city with a complex, multi-layered architectural fabric that charts its historical evolution:

- **The Maratha and Peshwa Eras:** This period established the iconic architectural typology known as the *Wada*—large, multi-courtyard residential mansions featuring intricate woodwork, stone plinths, and internal open-to-sky courtyards. Iconic structures like **Shaniwar Wada** (the fortified seat of the Peshwas) and **Lal Mahal** define the historic core of the city.
- **Traditional Commercial Precincts:** The historic core is structured around traditional commercial markets known as *Alis* (such as Tambat Ali and Bohri Ali). These vibrant markets blend residential and specialized mercantile functions, preserving centuries-old craftsmanship and urban layout patterns.
- **The Colonial and Institutional Phase:** The arrival of the British brought a distinct shift toward Gothic, Neo-Classical, and Indo-Saracenic architectural styles. This era contributed expansive institutional buildings, cantonment zones, and sprawling monuments like the **Aga Khan Palace** and the iconic main building of Savitribai Phule Pune University.

Urban Pressures and Conservation Challenges

In recent decades, Pune has transformed into a massive industrial, educational, and information technology hub. This rapid growth has created severe development pressures that directly threaten the city's historic urban core:

- **Infrastructure-Driven Displacement:** Large-scale mass transit projects, such as the Pune Metro, along with extensive road widenings, are regularly prioritized over the conservation of the traditional urban fabric.

- **Structural Decay and Demolition:** High land values in the central business districts have caused widespread neglect and the deliberate demolition of privately owned *Wadas*. These historic properties are increasingly being replaced by high-density commercial complexes.
- **Regulatory Gaps:** While the State Government and the Pune Municipal Corporation (PMC) established a dedicated **Heritage Cell** in 2003, early protection lists omitted many vulnerable structures. Conflicting interests between private property owners and rigid zoning restrictions have also historically slowed the implementation of effective building bylaws.

However, increasing urban development pressures have caused deterioration, demolition, and neglect of many heritage buildings. To address these issues, heritage conservation policies and planning regulations have been introduced by urban local bodies and planning authorities.

This report aims to study the heritage conservation framework of Pune city and evaluate the effectiveness of conservation efforts in maintaining the city's historical and cultural legacy.

1. Aim and Scope of the study

To systematically evaluate the heritage management ecosystem of Pune and formulate an actionable roadmap for its preservation, this study is structured around the following six formal research objectives:

- **To Conceptualize Heritage Value:** Establish a comprehensive theoretical baseline regarding the mechanics of heritage conservation. This involves defining its direct contribution to urban identity, collective social memory, localized tourism economies, and contemporary urban resilience.
- **To Trace Historical Urban Evolution:** Document the historical and morphological development of Pune city. This objective focuses on analysing the distinct spatial transitions and architectural typologies established during the Maratha, Peshwa, and British Colonial administrations.
- **To Appraise Regulatory Frameworks:** Conduct a rigorous policy analysis of the statutory conservation mechanisms active in Pune. This includes evaluating

the efficacy of the Unified Development Control and Promotion Regulations (UDCPR) and the operational frameworks of the Pune Municipal Corporation (PMC) Heritage Cell.

- **To Inventory Critical Heritage Assets:** Identify, catalogue, and map the key heritage structures, traditional residential *Wadas*, and historic market precincts (*Alis*) that define the city's historic core.
- **To Diagnose Systemic Vulnerabilities:** Investigate the primary structural, financial, legal, and developmental bottlenecks that cause the decay, unauthorized modification, or demolition of historic fabric under modern urbanization pressures.
- **To Formulate Sustainable Planning Interventions:** Propose a suite of sustainable urban planning strategies, including viable adaptive reuse models, public-private partnership (PPP) frameworks, Transfer of Development Rights (TDR) incentives, and community-driven management policies.

2. Literature Review

This section establishes the academic and regulatory foundation of the study, drawing from global preservation charters and localized statutory frameworks.

Global Paradigm of Urban Heritage Conservation

- **The Venice Charter (1964):** Establishes the baseline for structural authenticity, emphasizing that historic monuments must be preserved in their exact architectural context [1].
- **The Washington Charter (1987):** Defines principles for preserving historic towns and urban areas, integrating heritage management directly into broader urban planning policies [2].
- **The Burra Charter (1999/2013):** Introduces the concept of "cultural significance" and provides guidelines for the **adaptive reuse** of historic spaces without diminishing their cultural value [3].

The Indian Legislative Landscape

- **The AMASR Act (1958/2010):** The Ancient Monuments and Archaeological Sites and Remains

Act provide structural protection zones (100m prohibited, 200m regulated) around national monuments [4].

- **The 74th Constitutional Amendment Act (1992):** Empowers Urban Local Bodies (ULBs) like the Pune Municipal Corporation (PMC) to take administrative control of local heritage planning [5].
- **Unified Development Control and Promotion Regulations (UDCPR):** Establishes the current standardized building bylaws, floor space index (FSI) relaxations, and heritage listing criteria across Maharashtra [6].

Heritage Grading Matrix

Per standard Indian urban planning bylaws, heritage assets are categorized into three operational tiers:

Table- Heritage Grading Matrix

Heritage Grade	Definition & Significance	Permissible Interventions
Grade I	National or regional importance; unique architectural excellence; irreplaceable identity.	No structural alterations allowed; strict interior and exterior restoration only.
Grade II	Local architectural, historic, or cultural significance; key townscape landmarks.	Internal adaptive reuse permitted; external facades must be completely preserved.
Grade III	Evocative of a neighborhood's character; important for townscape harmony.	External modifications and extensions allowed under strict Heritage Committee guidelines.

3. Historical Background of Pune

Geographical Setting and Early Origins

Pune is strategically situated on the western margin of the Deccan Plateau, positioned at the confluence of the Mula and Mutha rivers. This unique geographical setting, nestled leeward of the Sahyadri mountain range, historically provided the settlement with natural defense barriers, a stable water supply, and control over vital trade routes connecting the coastal Konkan region with the inland plateau. Archaeological records trace Pune's origins back to the 8th century Rashtrakuta dynasty, when it was known as *Punya-Vishaya*

(holy territory) or *Puna wadi*. During the Yadava and subsequent early Islamic periods, it transitioned into a fortified agricultural and military outpost. The construction of the Kille Shahi (later known as the Fort of Pune) during the Tughlaq and Nizam Shahi eras laid the foundation for the nucleated settlement pattern that would eventually grow into a regional power center.

The Maratha and Peshwa Era: Spatial and Architectural Metamorphosis

The true transformation of Pune from an agrarian outpost into a major political metropolis occurred under the Maratha Empire, peaking during the rule of the Peshwas (Prime Ministers) in the 18th century.

The Evolution of the Peth System

The Peshwas expanded Pune's urban footprint by establishing an organized, grid-like system of residential and commercial neighborhoods known as **Peths**. Each Peth was named after a day of the week or its respective founder, functioning as a self-contained urban ward dedicated to specific administrative, caste, or mercantile communities.

Table- Evolution of the Peth system

Evolution of Pune's Peths	
Kasba Peth	The oldest settlement core; center of early civic life, trade, and the historic Gram devata temples.
Shaniwar Peth	The elite administrative nucleus; developed directly around the Peshwa's fortified palace.
Raviwar & Budhwar Peths	Dedicated commercial hubs; organized into <i>*Alis*</i> (specialized trade lanes) for wholesale merchants.
Somwar, Mangalwar & Shukrawar Peths	Residential expansions catering to state artisans, military personnel, and labor communities.

The Wada Architectural Typology

The defining architectural breakthrough of this era was the **Wada**, a magnificent residential mansion typology designed to accommodate joint families, administrative staff, and security contingents. Wadas were inward-looking, climate-responsive structures built using high-quality timber frame systems (*Sagwani*) resting on massive stone plinths.

Key structural and spatial components of the classic Wada included:

- **The Chowk (Courtyard):** Open-to-sky internal courtyards that acted as the focus of light, ventilation, and social interaction. Large Wadas possessed multiple, consecutive chowks (e.g., *Sadaracha Chowk* for public administration, *Majgharacha Chowk* for private family life).
- **Woodwork and Carvings:** Heavy structural timber columns with cypress-shaped profiles (*Suru* columns), continuous carved brackets, and ornate wooden ceilings reflecting native Maratha craftsmanship.
- **The Osari:** Shaded, semi-open verandas running along the perimeter of the courtyards, serving as transitional spaces between the outdoors and indoor rooms.

The Colonial and Institutional Phase

Following the fall of the Peshwas in 1818, the British East India Company assumed control of Pune, initiating a dual-city spatial structure that separated the historic native city from new British military and administrative zones.

Spatial Separation: City vs. Cantonment

The British established the **Pune Cantonment** and **Kirkee Cantonment** to the east and north of the old Peths. These new zones featured wide, linear tree-lined avenues, low-density residential bungalows, and expansive open parade grounds. This layout formed a stark visual and structural contrast to the high-density, organic, and tightly packed traditional core.

Architectural Shift and Civic Infrastructure

The British administration introduced Western architectural typologies, superimposing Gothic, Neo-Classical, Victorian, and Indo-Saracenic styles onto Pune's landscape.

- **Institutional Landmarks:** Buildings like the Council Hall, the Mahatma Phule Mandai (Crawford Market), and the main administrative building of Savitribai Phule Pune University (formerly the Governor's Monsoon Residence) introduced new materials like stone masonry, iron trusses, and stained glass.

- **Public Infrastructure:** The introduction of the railway network, piped water systems via the Khadakwasla Dam, and centralized administrative offices redefined Pune as an institutional and educational hub, earning it the title "Oxford of the East."

Morphological Transition: From Peshwa Capital to Modern Metropolis

The post-independence era brought massive rapid industrialization and population growth to Pune, changing its landscape from a quiet institutional town into a sprawling IT and automobile manufacturing powerhouse.

This rapid outward expansion shifted economic focus away from the historic center. The old Peths, once the primary centers of governance and elite residence, transformed into dense, congested commercial wholesale markets. This shift left the historic wooden *Wadas* highly vulnerable to structural decay, fragmentation of ownership, and redevelopment pressure from the modern real estate market.

4. Inventory of Key Heritage Structures

Categorization and Spatial Distribution of Heritage Assets

The historic core of Pune retains a dense concentration of heritage structures that reflect its political and cultural evolution. Under the guidelines of the Pune Municipal Corporation (PMC) Heritage Cell and the Unified Development Control and Promotion Regulations (UDCPR), these assets are categorized by typologies based on their historical functions, structural materials, and architectural styles.

Table- typological Classification of Pune's Heritage

Typological Classification of Pune's Heritage	
Maratha Fortified & Civic Palaces	High stone plinths, heavy timber frames, defensive masonry, and multiple internal courtyards (Chowks).
Domestic Wadas	Mixed timber-and-brick residential configurations flanking narrow streets within the historic Peths.
Public & Civic Markets	British Colonial engineering featuring ashlar stone masonry, iron structural trusses, and clock towers.
Religious Ensembles	Traditional stone temples (Shikhara style) and historic riverside ghat layouts.

The spatial distribution of these structures is concentrated within the old Peth areas, radiating outward from the original nucleus of Kasba Peth and Shaniwar Peth toward the eastern and southern wards.

Detailed Case Studies of Primary Heritage Sites

Shaniwar Wada (Grade I)

- **Historical Profile:** Built in 1732 by Peshwa Baji Rao I, Shaniwar Wada served as the fortified seat of power for the Peshwas of the Maratha Empire. It represents the pinnacle of Maratha defensive and palatial planning.
- **Architectural Attributes:** The complex is renowned for its massive granite rampart walls, five monumental gates (most notably the north-facing Delhi Darwaja equipped with anti-elephant steel spikes), nine bastion structures, and the foundations of multi-story residential palaces. The gardens follow a symmetrical layout, incorporating water fountains like the famous lotus-shaped Hazari Karanje (Thousand Fountains).
- **Current Conservation Status:** Managed by the Archaeological Survey of India (ASI). While the stone fortifications and foundations are well-preserved, the timber superstructure was entirely destroyed by a major fire in 1828. Current issues include high tourist foot traffic management, chemical weathering of the exposed stone foundations, and urban encroachment along the perimeter buffer zone.

Vishram Baug Wada (Grade I)

- **Historical Profile:** Built in 1807 during the reign of Peshwa Baji Rao II, this structure served as a luxurious private residence away from the administrative intensity of Shaniwar Wada.
- **Architectural Attributes:** Vishram Baug Wada features an ornate three-story wooden facade facing a busy thoroughfare. It is a classic showcase of late-Maratha woodwork, featuring cypress-shaped *Suru* columns, beautifully carved wooden brackets, and a spacious upper-floor assembly hall (*Diwankhana*) with decorated ceilings.

- **Current Conservation Status:** Under the ownership of the Pune Municipal Corporation (PMC). Portions of the Wada have been structurally restored using traditional lime-plaster techniques and timber structural sistering. It serves as a semi-public building, housing a small museum, a post office, and cultural exhibition spaces. This acts as a functional example of institutional **adaptive reuse**.

Mahatma Phule Mandai / Crawford Market (Grade I)

- **Historical Profile:** Built by the British Poona Municipality and opened in 1886, this structure was designed to centralize the retail marketing of fresh produce, moving commerce away from the open streets of the old Peths.
- **Architectural Attributes:** Designed in the Gothic Revival style using locally quarried grey basalt stone, the building features a striking 80-foot central octagonal clock tower. Eight radial indoor market wings extend from this central core, creating an efficient structure ventilated by large iron trusses and slatted wooden windows.
- **Current Conservation Status:** Active commercial market operated by the PMC. The building faces severe modern urban pressures, including dense vehicular congestion, structural modifications by individual stall tenants, and moisture penetration within the stone masonry due to inadequate stormwater drainage.

Mapping the Traditional Commercial Precincts (Alis)

Beyond individual monuments, Pune's tangible heritage is anchored in its historic streetscapes, known as **Alis**. These linear commercial precincts are organized around traditional trade guilds:

- **Tambat Ali (Kasba Peth):** The traditional lane of copper and brass coppersmiths. The architecture features zero-lot-line live-work units where ground-floor workshops open directly onto the street, while upper floors serve as residences.
- **Bohri Ali (Raviwar Peth):** A dense commercial precinct specializing in hardware, paint, and wholesale merchandise, characterized by high-density, multi-use historical building fabrics.

Summary of Structural Integrity across Key Precincts

To analyses field data gathered across the old city core, the following matrix outlines the current structural state of Pune's historical building typologies:

Table-Summary of Structural Integrity across Key Precincts.

Asset Typology	Core Locations	Primary Structural Materials	Dominant Degradation Factors
Institutional Monolithic	Civil Lines, Cantonment	Basalt stone, lime mortar, steel trusses	Superficial black algae growth, localized water seepage, stone joint weathering.
Domestic Wadas	Shaniwar Peth, Nana Peth	Timber frame framing, burnt clay bricks	Structural wood rot, sagging floors, unauthorized structural concrete replacements.
Precinct Streetscapes	Kasba Peth, Raviwar Peth	Mixed load-bearing masonry, timber	High vibration damage from traffic, heavy commercial signage overlay, unorganized wiring grids.

5. Regulatory and Institutional Frameworks

Statutory Legal Frameworks

The protection, listing, and management of heritage assets in Pune are governed by a multi-layered legal matrix operating at national, state, and local government levels.

- **National Level:** The Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958 (amended in 2010), provides the overarching statutory backbone [4]. Administered by the Archaeological Survey of India (ASI), it mandates strict **prohibited zones (within 100 meters)** and **regulated zones (within an additional 200 meters)** around centrally protected monuments like Shaniwar Wada [4], restricting any unauthorized construction or modern infrastructure development.

- **State Level:** The Maharashtra Regional and Town Planning (MRTP) Act, 1966, empowers local planning authorities to formulate regional development plans and insert specific regulations for heritage preservation.
- **Unified Development Control and Promotion Regulations (UDCPR):** Enacted by the Government of Maharashtra, the UDCPR standardizes building bylaws across the state. **Regulation 11.2** of the UDCPR deals explicitly with the conservation of buildings, artifacts, structures, areas, and precincts of historic, architectural, aesthetic, or cultural significance, establishing uniform guidelines for listing and grading.

Institutional Setup and Governance Mechanics

The operational execution of heritage conservation within Pune is divided between state advisory bodies and localized municipal departments.

The Pune Municipal Corporation (PMC) Heritage Cell

Established as a dedicated wing within the PMC, the Heritage Cell is responsible for field-level enforcement, structural monitoring, maintaining the official municipal heritage inventory, and executing public restoration projects (such as the structural stabilization of Vishrambaug Wada).

The Heritage Conservation Committee (MHCC)

The Municipal Heritage Conservation Committee (MHCC) is an independent advisory body constituted by the State Government. It comprises structural engineers, conservation architects, historians, environmentalists, and municipal town planners.

The MHCC acts as a regulatory gatekeeper; the PMC cannot grant building permissions, modifications, or demolition permits for any listed heritage structure or within a notified heritage precinct without a formal **No Objection Certificate (NOC)** from the MHCC.

Financial Incentives and Planning Tools

To balance urban development pressures with conservation needs, the regulatory framework incorporates specialized town planning tools designed to compensate private property owners for the restrictions placed on their historic estates.

Transfer of Development Rights (TDR) for Heritage

Since heritage regulations prohibit private owners of listed structures (especially Grade I and Grade II) from redeveloping their properties into high-rise commercial

complexes, the UDCPR provides financial relief through **Heritage TDR**.

- **The Mechanism:** The unutilized development potential (Floor Space Index or FSI) of a heritage plot is calculated and issued to the owner in the form of a transferable Development Rights Certificate (DRC).
- **The Benefit:** The owner can sell this TDR to developers for use in designated receiving zones (usually growing suburbs outside the historic core), allowing them to monetize their property values without demolishing or altering the historic fabric.

Restrictive Regulations and Building Bylaw Relaxations

To encourage the adaptive reuse and upkeep of listed buildings, the planning framework allows for specific relaxations in standard development regulations, subject to MHCC approval:

- Exemption from standard modern parking space requirements.
- Relaxations in mandatory boundary setbacks and marginal open spaces.
- Re-alignment of modern municipal utility connections (water, sewage, electricity grids) without compromising the load-bearing timber or stone structural baselines of traditional structures.

6. Challenges and Vulnerabilities in Pune's Heritage

Development and Infrastructure Pressures

The rapid transformation of Pune into a major economic, industrial, and technology hub has placed intense pressure on the spatial layout of its historic core.

- **Transit-Driven Displacement:** Large-scale public transit projects, specifically mass transit rail systems and major road-widening initiatives, frequently intersect with sensitive historic layouts. The insertion of modern concrete footings and elevated viaducts alters the visual continuity and structural safety of surrounding historical streetscapes.
- **Commercial Encroachment:** In areas like Raviwar Peth and Budhwar Peth, historical residential zones (*Wadas*) have been aggressively converted into

wholesale commercial warehouses. This conversion introduces heavy payload stresses onto aging timber floors that were originally engineered only for light residential use.

- **Skyline Vibrations:** The high density of heavy vehicular traffic on narrow historic lanes generates continuous, low-frequency ground vibrations. Over time, these vibrations destabilize traditional lime-mortar foundations and accelerate the cracking of load-bearing brick masonry.

Legal and Structural Issues

The execution of heritage policies in Pune is hindered by structural decay, complex property laws, and fragmented ownership.

- **Fragmented Property Ownership:** Many historic *Wadas* are co-owned by dozens of legal heirs following multiple generations of family fragmentation. This extreme fractional ownership creates legal standoffs, making it nearly impossible to gain the uniform consent required to initiate structural restorations or apply for Heritage TDR.
- **The Impact of the Rent Control Act:** Under long-standing rent control laws, tenants in historic properties pay frozen, decades-old nominal rents. Because these rental yields are negligible, landlords lack the financial incentive or cash flow to maintain the buildings, resulting in deliberate neglect so the structures will eventually be declared unsafe and cleared for demolition.
- **Structural Material Vulnerabilities:** Unlike monolithic stone monuments, the domestic heritage of Pune relies heavily on composite timber-and-brick framing. Without continuous roof waterproofing, water ingress causes rapid timber rot (*Sagwani* frame decay), which leads to sudden internal structural collapses during monsoon seasons.

Administrative and Financial Bottlenecks

While regulatory frameworks like the UDCPR and the PMC Heritage Cell exist on paper, their real-world application faces operational limits.

Market Realities of Heritage TDR

Although the Transfer of Development Rights (TDR) is designed to compensate property owners financially, its execution has run into several practical challenges:

1. Market Volatility
 - High suburb supply reduces TDR market prices
 - Cash-poor owners cannot afford structural architects.
2. Procedural Friction.
 - Processing certificates takes months or years.
 - Owners opt for quick, illicit commercial sales.

Institutional Capacity Limitations

The PMC Heritage Cell faces critical shortages in specialized manpower, lacking an adequate staff of dedicated conservation architects, material conservators, and structural engineers trained in historic preservation. Consequently, the department functions primarily as a reactive regulatory review body rather than an active coordinator of urban restoration initiatives.

Socio-Cultural Gaps

A fundamental challenge in preserving Pune's traditional urban fabric is the widening gap in public perception regarding the value of heritage spaces.

- **The Stigma of Old Structures:** To many property owners and residents, living in a traditional *Wada* is associated with structural risk, congested living conditions, and inadequate modern sanitation.
- **Loss of Traditional Craft Guilds:** The specialized craftsmanship required to restore historic buildings—such as processing traditional slaked-lime mortar or carving matching timber joints—is rapidly disappearing. As older artisans retire, they are replaced by modern construction laborers who rely on incompatible Portland cement patch-repairs, which lock in moisture and accelerate structural decay.

7. Sustainable Planning Strategies and Recommendations

Policy and Regulatory Reforms

To overcome the legal, financial, and administrative roadblocks identified in Chapter 5, Pune's planning frameworks must evolve from restrictive regulations to proactive, incentive-driven preservation models.

Revamping the Heritage TDR Framework

The current Transfer of Development Rights (TDR) model under the Unified Development Control and Promotion Regulations (UDCPR) requires structural changes to remain attractive to property owners:

- **Indexed Valuation:** TDR calculation factors should be tied directly to the real estate market value of the generating zone, ensuring owners in the historic core receive competitive compensation.
- **Fast-Track Processing:** Establish a specialized single-window clearance cell within the Pune Municipal Corporation (PMC) to reduce the issuance timeline for Development Rights Certificates (DRCs) from months to weeks.
- **TDR Banking:** Create a municipal "TDR Bank" where the PMC can purchase heritage rights directly from cash-poor owners, providing immediate liquidity for urgent structural stabilizations.

Reforming Rent Control for Heritage Assets

A targeted amendment is required for properties listed on the municipal heritage register:

- **Maintenance-Linked Rent Graduation:** Allow landlords to incrementally adjust long-frozen rents, provided the recovered revenue is legally funneled into verified, periodic structural restorations.
- **Tax Rebates:** Offer complete exemptions from municipal property taxes for owners who maintain their historic properties in accordance with the Municipal Heritage Conservation Committee (MHCC) guidelines.

Spatial Planning and Urban Design Strategies

Preserving individual monuments is insufficient; urban planning must protect the overall character of historic neighborhoods through active spatial planning.

- **Pedestrianization of Historic Commercial Precincts:** Core market channels like Tambat Ali and Raviwar Peth should be designated as low-emission, pedestrian-priority zones during business peak hours. Restricting heavy commercial vehicles protects fragile timber-framed structures from traffic vibrations.
- **Architectural Control and Buffer Zones:** Enforce strict building height restrictions (e.g., maximum 15 meters or matching the original street skyline) within a 100-meter radius of listed Grade II and Grade III structures to protect the visual harmony of historic streetscapes.
- **Underground Utility Upgrades:** Transition exposed electrical wiring and overhead telecommunication grids into underground conduits to reduce fire hazards and clear visual clutter from historic facades.

Financial and Operational Models

Urban heritage management cannot rely solely on limited municipal budgets; it requires innovative financial architectures.

Public-Private Partnerships (PPP) for Adaptive Reuse

The PMC should lease underutilized, public-owned historical assets to private developers under strict conservation covenants:

- **The Revenue Model:** Private partners fund the entire structural restoration in exchange for long-term operational leases (e.g., 20–30 years).
- **Permissible Commercial Reuses:** Convert properties into boutique heritage hotels, cultural centers, artisanal cafes, or co-working spaces that generate sustainable revenue while preserving the structural fabric.

Establishing a Revolving Heritage Fund

Create a dedicated, self-sustaining financial fund funded via a minor "Heritage Cess" levied on new luxury high-rise developments in developing suburbs. This capital should provide low-interest micro-loans to private *Wada* owners for emergency structural repairs, such as roof waterproofing or timber sistering.

Community Engagement and Skill Revival

Sustainable conservation relies heavily on local communities and a skilled workforce to maintain historic structures.

- **Institutionalizing Craft Guilds:** Establish a dedicated *School of Architectural Conservation Crafts* in Pune to train young construction workers in traditional skills like slaked-lime plastering, structural timber joinery, and historic stone masonry.
- **Community-Led Precinct Committees:** Form local neighborhood preservation boards composed of residents, traders, and historians. These committees will act as first responders to monitor, log, and report unauthorized demolitions or damaging modifications within their respective Peths.

8. Conclusion

Overview of the Study

This report provides a comprehensive evaluation of the urban heritage conservation ecosystem in Pune, India. Known as the cultural capital of Maharashtra, Pune possesses a rich architectural and cultural legacy [1]. This history spans across the Maratha, Peshwa, and British Colonial eras, leaving behind a unique built fabric composed of fortified palaces, traditional residential *Wadas*, historic market precincts (*Alis*), and colonial institutional landmarks.

However, rapid urbanization, modern infrastructure expansion, complex property laws, and intense real estate pressures have placed these non-renewable assets under active threat of deterioration, neglect, and unauthorized demolition. This study analyzes the legal, administrative, and spatial frameworks governing heritage preservation in Pune, identifies systemic bottlenecks, and proposes actionable planning strategies to achieve sustainable urban heritage management.

Key Findings and Systemic Challenges

The investigation reveals that while regulatory structures and statutory mechanisms exist on paper, their field-level execution faces major operational challenges:

- **Legal and Ownership Gridlocks:** The Rent Control Act has frozen rental yields at nominal, decades-old rates. This leaves landlords without the financial capacity or incentive to maintain historic structures, leading to deliberate neglect. Furthermore, multi-

generational fractional ownership of private *Wadas* creates legal Stal offs that prevent necessary restorations.

- **Structural Vulnerabilities:** Unlike stone monuments, Pune's domestic heritage relies heavily on composite timber-and-brick framing. Inadequate roof waterproofing causes rapid timber rot (*Sagwani* frame decay), making these structures highly susceptible to sudden collapse during monsoon seasons.
- **Financial and Regulatory Disincentives:** The current Transfer of Development Rights (TDR) mechanism under the Unified Development Control and Promotion Regulations (UDCPR) faces high market volatility and bureaucratic delays, reducing its financial appeal for cash-poor property owners.
- **Institutional Constraints:** The Pune Municipal Corporation (PMC) Heritage Cell operates primarily as a reactive regulatory review body rather than an active coordinator of restoration initiatives, largely due to severe shortages in specialized conservation staff.

Core Recommendations and Strategic Roadmap

To balance modern economic growth with the preservation of Pune's distinct urban identity, the report outlines a series of interconnected, sustainable planning interventions:

1. Policy and Regulatory Reforms

- **Index and Fast-Track Heritage TDR:** Adjust TDR values to match current suburban market rates and implement a single-window municipal clearance system to speed up certificate issuance.
- **Rent Control Adjustments:** Introduce a maintenance-linked rent graduation model allowing landlords to raise rents specifically to fund verified structural stabilization works.

2. Spatial and Urban Design Interventions

- **Pedestrian-Priority Precincts:** Transition high-density traditional lanes (like Tambat Ali) into pedestrian zones during business hours to shield fragile timber-framed structures from traffic vibrations.

- **Visual Buffer Controls:** Enforce strict height controls (maximum 15 meters) and facade harmony rules within a 100-meter radius of listed assets.

3. Financial and Operational Innovation

- **Public-Private Partnerships (PPP):** Lease underutilized, public-owned historic buildings to private developers for adaptive reuse (e.g., cultural spaces, boutique cafes) under strict conservation guidelines.
- **Revolving Heritage Fund:** Establish a self-sustaining municipal repair fund financed via a small "Heritage Cess" levied on luxury high-rise developments in expanding suburbs.

4. Community and Capacity Building

- **Skill Revival Programs:** Create an institutional training school for traditional conservation crafts (such as slaked-lime plastering and historic timber framing) to build a skilled modern workforce.

Heritage conservation is not a barrier to progressive urban growth; it is an essential component of sustainable development. By shifting from a defensive, restrictive approach to an incentive-driven model that integrates heritage management directly into the city's master plan, Pune can safeguard its historic urban core. This strategic framework ensures that Pune's rich historical identity is successfully preserved as a functional, revenue-generating, and culturally vibrant resource for future generations

Acknowledgement

I would like to express My deepest gratitude to all those who supported me throughout the completion of this research paper.

First and foremost, we extend our sincere thanks to Assistant Professor Mr. Hardik Sandish, my guide and mentor, for his constant encouragement, insightful feedback, and invaluable guidance throughout the research. His expertise and dedication have been instrumental in shaping the direction of this report.

I also acknowledge the Bhagwan Mahavir College of Design and Planning, Surat, and the Department of Planning for providing me with the platform and academic environment to undertake this study.

Finally, I would express my heartfelt gratitude to my family and friends for their continuous support, patience, and motivation throughout this academic journey.

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