

Urban Memory and Morphological Evolution in Nagpur: A Narrative Approach to Reading Spatial Evolution in an Indian City

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Abstract: This paper presents both spatial morphology and narrative urbanism to analyze the development of Nagpur's urban fabric. Nagpur, a typical second-tier Indian city, exhibits intricate layers of sociopolitical, historical, and infrastructure change. The study pursues three goals: (1) to chart the morphological development of the city over time; (2) to assess how migration, religious beliefs, and historical events have shaped spatial identity; and (3) to identify important perceptual indicators incorporated into the urban landscape. Drawing on fieldwork and oral histories, the process combines historical analysis, qualitative narrative mapping, and GIS-based morphological mapping. According to the findings, Nagpur's built environment has seen several periods, each leaving its own spatial and symbolic marks, ranging from dense Gond settlements to colonial restructuring and post-independence sprawl. The paper presents a conceptual framework that integrates material and mnemonic elements, encouraging planners to consider both form and memory for a more culturally informed urban design.

Keywords: urban morphology, urban memory, spatial transformation, narrative urbanism, second-tier cities, Nagpur, India

1. Introduction

The urban landscape of second-tier Indian cities is rapidly changing due to infill construction, legislative changes, and socioeconomic transformations. As these cities experience layered spatial growth, various physical and temporal traces in the built environment become visible (Adhvaryu, 2011). In order to comprehend the larger dynamics of urban history and morphology, this study examines the stratified growth of Nagpur, a representative second-tier city. Urban morphology explains these processual changes by looking at building fabric, street patterns, lot layouts, and spatial hierarchies over time (Kotharkar & Bahadure, 2014). Furthermore, master plans and other planning tools have played a significant role in remaking Indian cities, frequently changing both the built and unbuilt surroundings (Shastri & Subrahmanian, 2021). A more comprehensive lens for analyzing how historical occurrences, socioeconomic changes, and spatial markers impact urban identity is provided by a morphological interpretation enhanced by narrative and historical layers. The objectives of this study are to:

- (a) Narrate the complex history woven throughout Nagpur's urban fabric;
- (b) Analyze how historical and sociopolitical events have shaped spatial arrangement;
- (c) Determine the perceptual cues in the built environment that influence identity and collective memory.

2. Literature Review

2.1 Urban Morphology and Typological Evolution

Morphological analysis of urban form has its roots in Conzen's (1960) town-plan analysis paradigm. This was extended by later researchers, such as Kropf (1996) and Oliveira (2016), to highlight dynamic spatial layering. The morphological reading of Nagpur in this study is based on the sociocultural and historical influences that produce indigenous urban typologies in India, as demonstrated by Rapoport (1982) and Kostof (1991).

2.2 Urban Memory and Spatial Identity

The idea of mental maps — paths, edges, districts, nodes, and landmarks — was first proposed by Kevin Lynch in 1960 as a means of ensuring spatial intelligibility. In 1980, Norberg-Schulz highlighted the *Genius Loci*, or mood, of locations. Scholars such as Hosagrahar (2001) and Nair (2005) have studied how modernization disturbs memory-rich urban landscapes in India.

2.3 Narrative Urbanism and Subjective Space

According to Sanderscock (2003) and Rendell (2006), narrative urbanism views cities as texts that may be understood through anecdotes, oral histories, and personal experiences. In under-recorded towns like Nagpur, where lived experiences

supplement official records, this is particularly pertinent.

2.4 Synthesis and Identified Gaps

Few studies, particularly in second-tier Indian towns, combine morphological and narrative methodologies despite the wealth of literature on form and perception. In order to close this knowledge gap and enhance comprehension of spatial change, this study suggests a hybrid framework. The development of urban environments necessitates a complex strategy that takes into account both experiential meaning and physical form, especially in Indian cultures. The conceptual and methodological underpinnings of the current study are informed by important literature in the fields of urban morphology, urban memory, and narrative urbanism.

3. Research Methodology

The study's methodological methodology combines narrative urbanism with spatial morphological analysis to capture the formal and experiential aspects of Nagpur's urban change. A thorough reading of the city's development through historical documentation, spatial mapping, and perceptual investigation is made possible by this mixed-method approach.

3.1 Historical Mapping and Periodization

To track Nagpur's spatial growth, historical maps, archival materials, and planning documents from colonial and post-colonial eras were examined. The development of the city was divided into significant stages according to changes in the political, infrastructure, and socioeconomic spheres. A diachronic perspective on urban form was made possible by periodization.

3.2 Morphological Analysis

The change in land-use distributions, building typologies, plot configurations, and street patterns was examined using morphological methods. GIS software was used to digitize georeferenced base maps so that spatial configurations from different eras could be compared.

3.3 Narrative Mapping and Urban Perception

To gather stories from local stakeholders and citizens, in-depth interviews, field observations, and photographic documentation were carried out. In order to comprehend how memory and identity are ingrained in common urban places, mental mapping exercises and oral histories were employed.

3.4 Identification of Urban Markers

Important physical markers that anchor urban memory were found by the study, including chowks, water features, religious buildings, and establishments from the colonial era. To determine their symbolic and spatial significance, these were mapped and examined.

3.5 Conceptual Framework Development

A conceptual framework was developed by combining the results from the morphological and narrative levels. This approach interprets the material and memory features of the evolution of cities such as Nagpur by combining spatial research with experiential readings. By offering an integrated perspective that is based on both spatial form and cultural meaning, this paradigm advances urban studies by examining the multi-layered change of Indian cities.

4. Urban Evolution of Nagpur

A Morphological and Narrative Perspective findings from the narrative and morphological levels were combined to create a conceptual framework. This method combines experiential readings with spatial research to analyze the material and memory aspects of the development of cities like Nagpur. This paradigm promotes urban studies by analyzing the multi-layered transformation of Indian cities and providing an integrated perspective based on both spatial form and cultural meaning.

4.1 Geographic Foundations and Early Settlement

Nagpur's early development was greatly aided by its location along the fertile banks of the Nag River. The flat terrain, water availability, and agrarian viability of the first colony, known as Nandwardhan (the modern Mahal region), led to its emergence. Indigenous groups that lived in forests, known as the Gonds, created scattered but connected hamlets that eventually came together to form a more organized urban form. A dense, organic structure of habitation influenced by water networks and the natural topography is evident in this phase.

4.2 Migration and the Making of a Composite City

Dispersed rurality gave way to organized urbanism in 1702 when Bakht Buland Shah formally merged 12 hamlets into the town of Rajapur Barsa. In order to revitalize the economy and culture, migrants from nearby areas were invited. The city's transition into a hub of commerce and government was marked by the planning of streets, the construction of water tanks, and the definition of public areas. The perception of Nagpur as "a city of migrants" still shapes the city's spatial variety and demographic structure.

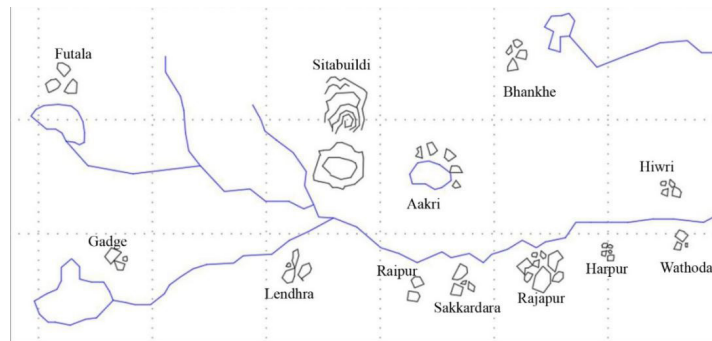


Figure 1. Schematic representation of Nandi wardhan region (First phase) by Gond King, before 1702 (Source – Author)

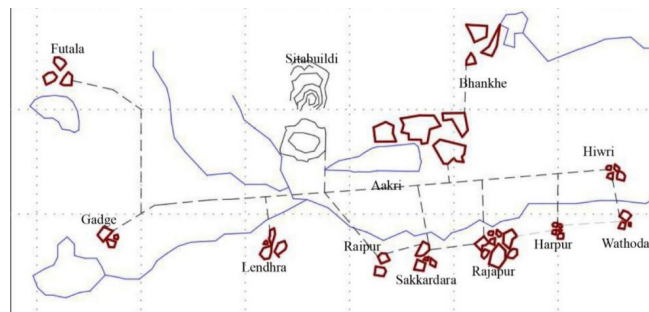


Figure 2. Schematic representation Rajapurbarasta (Second phase) by Gond King, 1702 (Source – Author)

4.3 Political Imprints: Fortification and Power Projection

Fortifications were first erected in the city in 1709, under the reign of Chand Sultan, as a practical and symbolic declaration of governmental dominance. Five separate gates were built inside the defensive wall (Parkot), which had a perimeter of around three miles and was named Jumma, Budhwar, Aaditwar, Bhanara, and Bhutiya. These gates functioned as urban landmarks that organized public life in addition to being infrastructure components. The concentric pattern of development created by the fortified core's spatial ordering is still discernible in the street alignments of today.

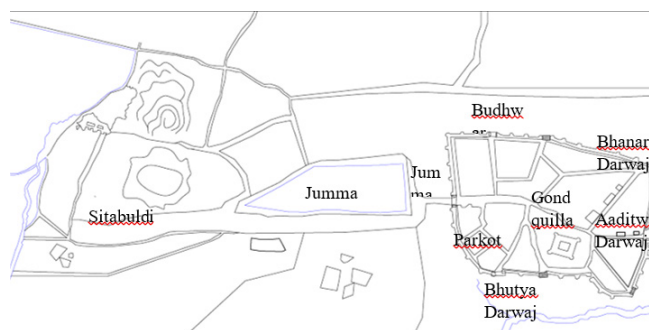


Figure 3. Schematic representation of fortification of city, 1709 (Source – Author)

4.4 Religion and Morphological Transition

A new religious and cultural dynamic was brought about by the 1730 takeover by Raghuji Bhosale, the Maratha emperor. Outside the fort walls, temples, ghats, and communal areas were established, and other gateways such as Tulshibag and Utara Darwaja were built. In addition to being places of worship, religious institutions served as hubs for spatial and social

organizing. The development of a dual-core city — a fortified administrative center and a more casual, ritual-based spatial expansion outside of it — is highlighted by this period.

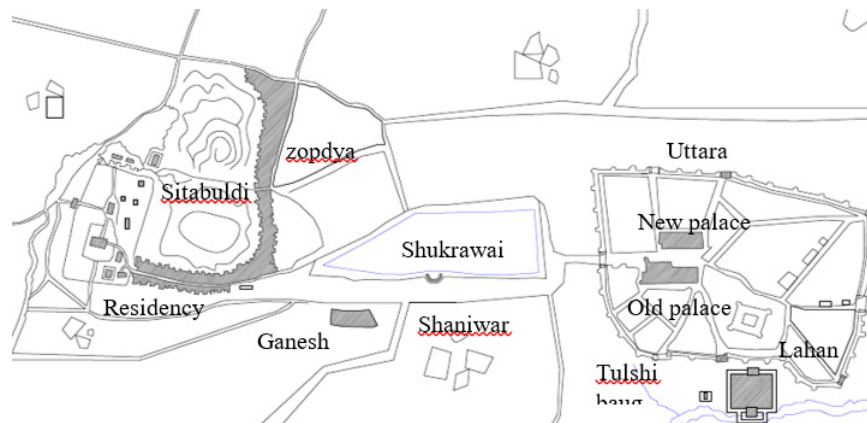


Figure 4. Schematic representation of Nagpur during 1703 (Source – Author)

4.5 Colonial Urbanism and Economic Restructuring

A significant change in geography was brought about by the British conquest of Nagpur in 1853. With the construction of Civil Lines, railroads (1867), and other colonial establishments like post offices and hospitals, a parallel urban core developed. The metropolis started to take on the appearance of a “dual city,” combining grid-based colonial design with native organic villages. By supporting workshops, administrative tasks, and the cotton trade, infrastructure evolved into a tool of economic control. The foundation for postcolonial urban fragmentation was laid by this spatial division.

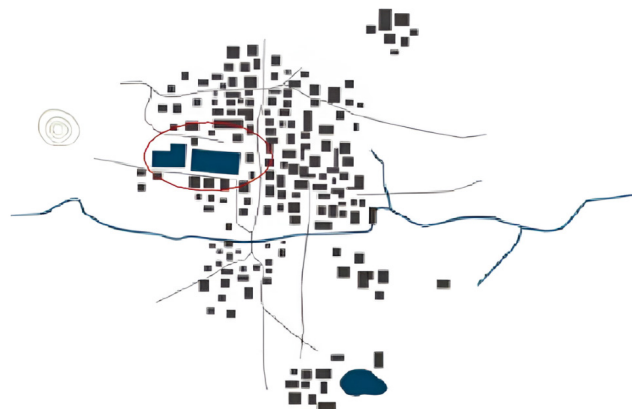


Figure 5. Nagpur during 1853 (Surawar M.)



Figure 6. Nagpur during 1900 and 1940 (Source - Surawar M.)

4.6 Post-Independence Planning and Peripheral Expansion

After 1947, industrialization and national planning models had an impact on Nagpur's urban expansion, which became more controlled and expansive. Under the Nagpur Improvement Trust (NIT), planned residential colonies, transportation routes, and civic facilities were implemented. As the city grew outward along highways, concentrated growth patterns appeared. However, this phase also witnessed the growth of informal communities on the outskirts and increased strain on land and water supplies.



Figure 7. Nagpur in 1970 (Source - Surawar M.)

4.7 Liberalization and the Era of Urban Explosion

Spatial sprawl spread beyond the Ring Road into neighborhoods like Pipla, Besa, and Manish Nagar during the post-1990 liberalization era, resulting in an unparalleled real estate boom. The fragmentation of the urban fabric was exacerbated by private developers, the Smart City plan, and new infrastructure projects like MIHAN (Multi-modal International Hub Airport at Nagpur). Rapid horizontal development, land-use transitions, and the waning coherence of previous spatial hierarchies are morphological characteristics of this era.

4.8 Contemporary Urbanism: Vertical Growth and Memory Loss

Spatial High-rise construction and Transit-Oriented Development (TOD) along metro corridors have marked Nagpur's move to vertical densification since 2020. However, urban memory has frequently suffered as a result of this physical intensification. Perceptual indicators, such as chowks, water tanks, and traditional vernacular architecture, are under growing threat as older neighborhoods are being destroyed or reorganized. Although smart city plans encourage integration and efficiency, they frequently overlook the complex geographical histories that shape Nagpur's character. Following independence, the city's growth was concentric and resulted from construction, demand, and influx. Its popular perception is lost despite the fact that the infrastructure development, such as the Metro rail, an effort under SCM, has made it a vast city. Hence, the city of Nagpur acquires prominence as a subject of this research.

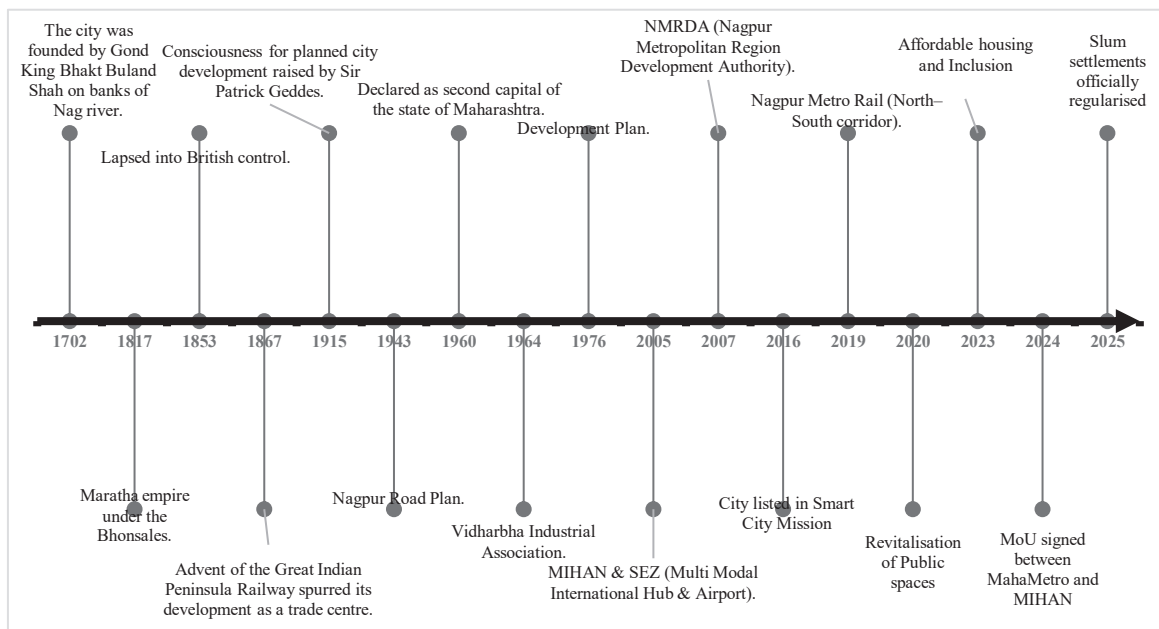


Figure 8. Timeline of Nagpur evolution (Source – Author)

5. Discussion: Interpreting Urban Transformation through Form and Memory

An analysis of Nagpur's built environment across time shows that form, function, and meaning have all interacted to define the city. From its small Gond beginnings to its expansive modern shape, the city's spatial development has taken several different paths influenced by colonial infrastructure, post-independence planning paradigms, migration, political upheavals, and religious transformations. In order to unravel the more profound patterns of change and identity creation, this portion combines the morphological observations and narrative layers.

5.1 Layered Morphology: A Diachronic Reading

The early core formation under the Gonds represents a compact, organic settlement centered around natural features, while the Marathas' fortification and religious structuring brought concentric patterns and sacred landscapes. These morphological patterns correspond to each urban phase in Nagpur's history.

A dual-city paradigm was produced by colonial spatial reorganization, which contrasted indigenous form with grid-based planning.

Post-independence growth was radial in nature and was fueled by institutional planning and highway construction.

Fragmented peri-urban growth zones were produced by liberalization-driven urban sprawl; modern verticalization signals a shift away from horizontal sprawl and toward denser urban cores. This diachronic layering demonstrates how Nagpur's urban morphology is stratified rather than static, with earlier forms surviving beneath or inside of more recent ones to create a complex palimpsest of urban memory.

5.2 Urban Memory and Perceptual Anchors

The city's experiential and symbolic aspects, in addition to its spatial structure, have been crucial in forming its identity. Residents discovered important perceptual anchors through narrative mapping, which included interviews, oral histories, and mental mapping. These anchors included:

- Major commercial hubs (like Itwari and Sitabuldi)
- Places of worship (Like Tekdi Ganpati)
- Tanks and water bodies (like Shukrawari Talav)
- Colonial-era institutions (e.g., Railway Station, Mayo Hospital)

In addition to being useful as physical landmarks and navigational aids, these markers act as memory banks, preserving the city's common history within its architectural design. But as contemporary urbanization accelerates, many of these anchors are disappearing or becoming hidden, weakening the urban identity.

5.3 Interfacing Morphology with Narrative: A Conceptual Framework

This study suggests an integrative framework in which the evolution of spatial form—street grids, land use, and building types—is explained by morphological analysis. Through perceptions, memories, and experiences, narrative urbanism sheds light on how people interact with space. Combining them gives us a comprehensive picture of how cities like Nagpur change, both materially and significantly. Both are recognized by the framework:

Intangible dimensions (memory, identity, symbols);

Tangible transformations (infrastructure, rules, expansion)

Urban planners, designers, and legislators are urged by this approach to go beyond form-based interventions and incorporate the lived and remembered city into the design process.

5.4 Implications for Urban Planning in Second-Tier Indian Cities

The Nagpur situation exemplifies broader trends that apply to other second-tier Indian cities:

There is a widening gap between the goals of master planning and the lived reality at the grassroots level; rapid urbanization tends to prioritize economic and infrastructure efficiency over cultural continuity.

Due to the demands of contemporary development, historic districts and areas rich in memories are being marginalized more and more.

Planning frameworks must incorporate contextual awareness, give heritage conservation top priority, and facilitate community-led development that honors urban memory in order to meet these problems. The study area's shifting land use patterns throughout time show a complex interplay of institutional, infrastructure, and socioeconomic elements (Bokhad et al., 2024). Traditional settlement traditions, which included a mix of residential, religious, and agricultural uses, had a significant impact on land use during the first stage (1700s–1800s). This phase reflects a self-sufficient rural-urban core with minimal external influence. The subsequent period (1800s–1936) witnessed a discernible institutional change that marked the beginning of structured urban growth as a result of the rise of industrial activity and colonial infrastructure initiatives like railway development and civil lines.

The shift in focus from 1936 to 1976 toward planned residential development and the establishment of transportation corridors showed a more strategic approach to urbanization in response to growing population and mobility demands. Between 1976 and 1998, while urban borders were expanding and land demand was increasing, the city saw suburban infill and peri-urban spread. Unchecked expansion and spatial sprawl were frequent throughout the 1998–2020 period of rapid urban growth, particularly along the Ring Road. The most recent period (2020–2025), which marks a significant move toward vertical densification and land regularization, is characterized by an attempt to regulate urban growth through efficient land use, vertical space optimization, and governmental interventions.

Table 1. Land use dominance table of Nagpur city (Nagpur gazetteer)

Phase	Land Use Dominance
1700s–1800s	Residential + Religious + Agricultural core
1800s–1936	Institutional (civil lines, rail), industrial
1936–1976	Planned residential + transport corridors
1976–1998	Suburban infill + peri-urban spread
1998–2020	Urban explosion, especially along Ring Road
2020–2025	Vertical densification + land regularization

In general, the trajectory of land use change mirrors larger trends of modernization, growth driven by infrastructure, and the problems of managing unplanned expansion, which have culminated in recent initiatives to enact more controlled and sustainable urban development.

Table 2. Growth pattern as per period (Nagpur gazetteer)

Period	Approx. built-up area	Key characteristics and notes	Growth pattern
1702–1743	< 1 km ²	Founding by Gond king Bakht Buland Shah Mahal, Nag River, temples, fort	Compact core
1743–1818	~2–3 km ²	Bhonsale (Maratha) expansion Shukrawari Lake, Itwari markets	Organic expansion

Period	Approx. built-up area	Key characteristics and notes	Growth pattern
1818–1864	~5–8 km ²	British takeover Civil Lines, cantonment Railway (1867)	Dual city begins
1864–1936	~15–20 km ²	Industrialization Street networks Cotton mills, workshops	Suburban growth
1936–1976	~78 km ²	NIT formed (1936) Radial expansion on highways	Planned peripheral growth
1991	~83 km ² (~34%)	Satellite imagery Infill in older suburbs	Peri-urban sprawl
1998–2010	83 → 101 km ² (~48%)	Real estate boom Pipla, Besa, Manish Nagar Ring Road growth	Sprawl intensifies
2010–2020	101 → 145 km ² (~68.7%)	MIHAN, Butibori Metro plan Farmlands converted	Urban explosion
2019	~143 km ² (~67.8%)	Saturation point Water bodies, green loss	Densification pressure
2020	~145 km ² (~68.7%)	Smart City begins DP revision	Regulated redevelopment
2021	~147 km ² (~69.1%)	High-rise trend >100 towers approved	Vertical densification
2022	~148 km ² (~69.4%)	Greening budget Shrinking fallow land	Eco-pressure rise
2023	~149.5 km ² (~69.8%)	TOD near metro Dense urban cores	Transit-linked growth
2024	~151 km ² (~70.2%)	Expressways Reserved plots deleted	Infra-driven surge
Mid 2025	~152.5 km ² (~70.5–71%)	Full absorption MIHAN, buffer norms relaxed	Sprawl beyond Ring Road

Between 1702 and 2025, Nagpur’s urban built-up area has increased more than 150 times, from less than 1 km² to around 152.5 km². The most significant period of this boom occurred after 1990 and was primarily driven by liberalized development regulations, real estate investments, and extensive infrastructure developments. Since 2020, the focus of urban expansion has shifted to redevelopment and vertical densification within the existing city fabric; nonetheless, the periphery continues to face mounting pressure from new expressways, transport lines, and unofficial land markets.

6. Conclusions: Toward a Memory-Informed Urban Future

The urban development of Nagpur offers a powerful illustration of how memory, constructed form, and sociopolitical factors interact to influence a city’s spatial identity. This study shows that the city’s development is neither linear nor homogeneous, but rather reflects a complex interaction between planned interventions and lived experiences through the use of narrative urbanism and a layered morphological reading. Nagpur has continuously absorbed, reconfigured, and layered its spatial character from its beginnings as a small settlement shaped by agrarian and geographic logic, through periods of religious structuring, colonial imprint, and post-independence expansion, to the most recent push for vertical densification and smart infrastructure. Every historical event has left behind both tangible and intangible remnants, whether it was characterized by migration, fortification, institutional planning, or economic liberalization.

The results demonstrate that an examination of form or policy alone is insufficient to comprehend urban transformation in second-tier Indian cities. It necessitates an understanding of how individuals view, use, and recall space. Chowks, water features, temples, and colonial structures are examples of perceptual markers that act as pillars of continuity in the face of swift change. However, the stresses of standardized urban development plans are putting these components at greater risk. In order to represent the multi-layered realities of urban space, this study argues for an integrated approach to city-making that blends narrative mapping with morphological understanding. Planning processes must take into account local histories, spatial memories, and cultural identities as Nagpur, like many other Indian cities, welcomes technological expansion and densification. We can only progress toward more inclusive, resilient, and context-sensitive urban futures by recognizing the city as a lived experience as well as a material construct.

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