

INFRASTRUCTURE-LED URBAN TRANSFORMATION AND THE PUBLIC REALM: A CASE STUDY OF MITH CHOWKI JUNCTION, MUMBAI

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ABSTRACT

In cities like Mumbai, nodes and junctions are essential places where mobility infrastructure and the hectic lives of people in cities meet. Over the years, many of these kinds of crossroads have been changed by big transportation projects that often put the needs of private vehicles ahead of the needs of pedestrians and the quality of public space. One example is Mith Chowki Junction in Malad West, Mumbai. Once a busy suburban intersection for pedestrians, it has become a multi-layered, traffic-heavy intersection since the construction of flyovers and the elevated Metro Line 2A. This research examines the effects of the alteration of Mith Chowki Junction through direct observation, photographic documentation, and geographical analysis. It looks at how the built environment, land use, and conditions at ground zero have changed, with a focus on how people experience them. The study discusses how infrastructure-led development has changed the nature of the intersection and makes the case for a people-centered, urban design-based strategy to making the public realm better in similar metropolitan areas.

KEYWORDS: Mumbai, urban design, urban junctions, infrastructure development, public space, and pedestrian experience.

INTRODUCTION

Mumbai's housing shortage has led to the redevelopment of slum areas through the Slum Rehabilitation Authority (SRA) scheme. Although these projects provide permanent homes, many residents experience uncomfortable indoor conditions, such as high heat and poor air movement. Thermal comfort is important because it affects people's health, daily activities, and overall quality of life in crowded residential buildings. Thermal comfort means how comfortable people feel with the temperature inside their homes. It depends on factors like temperature, humidity, air movement, clothing, and activity level. In hot and humid cities like Mumbai, good natural ventilation and smart building design are very important to keep homes comfortable without depending too much on air conditioners.

INTRODUCTION

Urban nodes and junctions play a significant role in shaping the daily experience of city dwellers. In Mumbai, such junctions often act as neighbourhood centres, supporting movement, formal/informal street trade, and social interaction. However, recent urban development trends have increasingly prioritised traffic efficiency and regional connectivity. Mith Chowki Junction, located in Malad West, Mumbai, has undergone a major transformation due to the construction of a flyover and the elevated Metro Line 2A. While these interventions have improved mobility, they have also changed the spatial character of the junction. This paper takes Mith Chowki Junction as a case study to examine and understand how infrastructure-led development affects the urban fabric and public realm quality.

OBJECTIVES OF THE STUDY

- To document the transformation of Mith Chowki Junction over time.
- To analyse the impact of mobility infrastructure on ground-level spatial conditions.
- To examine pedestrian movement and public space quality at the junction.

- To explore possibilities for people-centric urban design interventions.

METHODOLOGY

The study adopts a qualitative and observational research methodology. Site visits were conducted at different times of the day to observe traffic movement, pedestrian behaviour, and informal activities. Photographic documentation and visual analysis were used to study - built form, infrastructure scale, and pedestrian conditions. The methodology focuses on spatial experience and everyday use rather than quantitative traffic data.

EVOLUTION OF BUILT FORM AND LAND USE

Before the new connection road was built, the area near Mith Chowki Junction was mostly made up of low-rise homes, tiny stores, and streets that were easy for people to walk on. The size of the complex made it easy for people to walk around and meet new people. Redevelopment has brought high-rise apartment complexes and more people to the area in recent years, changing the skyline and the size of the neighbourhood.



Figures 1: High-Rise Residential Redevelopment in the Mith Chowki Precinct
Source - author



Figures 2.
High-Rise Residential Redevelopment in the Mith Chowki Precinct
Source - author

INFRASTRUCTURE DEVELOPMENT AND SPATIAL CHANGE

The building of the flyover and Metro Line 2A is the most important change at Mith Chowki Junction. These infrastructures put a high priority on keeping private vehicles and metro trains moving without stopping. At ground level, metro entry points, vehicle traffic, and pedestrian movement all happen in a small area.



Figure 3: Image before construction of Metro Station & Flyover.
<https://indianexpress.com/article/cities/mumbai/changing-city-t-shaped-flyover-mith-chowky-likely-ready-2024-end-9349536/>



Figure 4: Image after construction of Metro station & Flyover
<https://www.mid-day.com/mumbai/mumbai-news/photo/in-photos-piyush-goyal-inaugurates-flyover-near-mith-chowky-in-malad-102475/8>

Ground-Level Conditions and Pedestrian Experience

Spaces beneath the flyover and metro structure are heavily used but poorly defined. Pedestrians and informal activities occupy these areas without adequate

design support, resulting in frequent conflicts with vehicular traffic.



Figure 5:
<https://indianexpress.com/article/cities/mumbai/t-shaped-flyover-traffic-mumbai-mith-chowky-junction-9578906/>

TRAFFIC DOMINANCE AND MOVEMENT PATTERNS

From the air, Mith Chowki Junction looks like it has a lot of traffic and complicated turns. There are a lot of cars at the junction, but not many pedestrian crossings, so people have to rely on negotiation and improvisation.

INFRASTRUCTURE SCALE AND LONG-TERM IMPACT

The raised metro line makes a prominent infrastructure presence along the Link Road. The structural intricacy seen during construction becomes a permanent part of the space, making it harder to move around on the ground.

PEDESTRIAN INFRASTRUCTURE AND INFORMAL ADAPTATION

The footpaths at Mith Chowki Junction are tiny, broken up, and often blocked. Pedestrians often have to walk near to moving cars, which shows that pedestrian infrastructure is not up to par.

CONCLUSION

The changes at Mith Chowki Junction show how hard it is to build cities in Mumbai with new infrastructure. The quality of the public environment at ground level has gotten worse, even though connectivity has gotten better. This study underscores the necessity of integrating mobility infrastructure with human-scale urban planning to ensure that intersections serve as inclusive urban areas.

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