

3AIGRA'S HERITAGE IN TRANSIT:

A SPATIAL AND VISUAL ANALYSIS OF THE METRO CORRIDOR'S IMPACT ON THE CITY'S HISTORICAL IDENTITY.



**Dr. Preeti Nair
Ar. Swati Punyal
Hardika Saini (Research Scholar)
Skand Hemmady (Research Scholar)**

**AIIGRA'S Heritage in Transit:
A Spatial and Visual Analysis of the Metro
Corridor's Impact on the City's Historical
Identity**



**India | UAE | Nigeria | Uzbekistan | Montenegro | Iraq |
Egypt | Thailand | Uganda | Philippines | Indonesia
www.empyrealpublishinghouse.com**

**ॐGRA'S Heritage In Transit:
A Spatial and Visual Analysis of the Metro
Corridor's Impact on the City's Historical
Identity**

Authored by:

Dr. Preeti Nair

HOD, School of Architecture, Delhi Technical Campus, Greater Noida

Ar. Swati Punyal

Assistant Professor (on contract), School of Planning and Architecture, New
Delhi

Hardika Saini

Research Scholar, Student of architecture at Delhi Technical Campus,
Greater NOIDA

Skand Hemmady

Research Scholar, Student of architecture at Delhi Technical Campus,
Greater NOIDA

Copyright 2025 by Dr. Preeti Nair, Ar. Swati Punyal, Hardika Saini
and Skand Hemmady

First Impression: August 2025

ॐ**GRA'S Heritage in Transit:
A Spatial and Visual Analysis of the Metro Corridor's
Impact on the City's Historical Identity**

ISBN: 978-93-49359-16-1

Rs. 1000/- (\$80)

No part of the book may be printed, copied, stored, retrieved, duplicated and reproduced in any form without the written permission of the editor/publisher.

DISCLAIMER

Information contained in this book has been published by Empyreal Publishing House and has been obtained by the authors from sources believed to be reliable and correct to the best of their knowledge. The authors are solely responsible for the contents of the articles compiled in this book. Responsibility of authenticity of the work or the concepts/views presented by the author through this book shall lie with the author and the publisher has no role or claim or any responsibility in this regard. Errors, if any, are purely unintentional and readers are requested to communicate such error to the author to avoid discrepancies in future.

Published by:
Empyreal Publishing House

Preface

Agra, the city of timeless monuments and cultural grandeur, has long stood as a symbol of India's rich heritage. As the home to the iconic Taj Mahal and other architectural marvels, Agra draws millions of visitors annually, making it a cornerstone of India's tourism industry. However, like many historical cities, Agra grapples with the dual challenges of preserving its cultural identity while embracing urban development.

In this book, *Agra's Heritage in Transit: A Spatial and Visual Analysis of the Metro Corridor's Impact on the City's Historical Identity*, we focus on the impact of the Agra Metro Project on this heritage city. This metro system, envisioned as a transformative initiative, is poised to redefine urban mobility while raising critical questions about its implications for the city's historical and cultural fabric.

Our primary aim is to delve into the intricate balance between infrastructural development and heritage conservation. We examine how the metro corridors are shaping the spatial and visual dynamics of Agra, influencing not only its urban landscape but also the experiences of its residents and visitors. By combining detailed research with visual analysis, this book seeks to provide a comprehensive perspective on the project's potential to enhance connectivity without compromising the essence of Agra's identity.

Through this exploration, we hope to shed light on the broader challenges faced by heritage cities worldwide as they navigate the complexities of modernization. Agra serves as a compelling case study that underscores the importance of thoughtful planning and community engagement in achieving sustainable development goals.

This journey would not have been possible without the insights of urban planners, historians, architects, and citizens who have shared their perspectives on the Agra Metro Project. To them, we extend our deepest gratitude.

We invite readers to embark on this exploration of Agra's transformation—a story of a city striving to honour its past while building a path to the future.

Acknowledgement

We extend our sincere gratitude to the Head of Department Dr. Preeti Nair, Faculty of Architecture, Delhi Technical Campus, for their continuous support and encouragement throughout this research. Their guidance has been instrumental in shaping our understanding of urban development, heritage conservation, and metro-induced urban growth.

A special thanks to our teachers-in-charge, Dr. Preeti Nair, Ar. Swati Punyal, Ar. Abhinav Kesarvani, Ar. Gandharva Swami, Ar. Amitesh Vijay Maurya and Er. Mohd. Parvez Alam whose insights and constructive feedback have helped refine our study. Their mentorship has played a crucial role in the successful completion of this book.

We also wish to acknowledge the contributions of our batch (2020 – 2025), whose discussions, collaboration, and shared enthusiasm have enriched this research. Their support and dedication have been invaluable in bringing this work to fruition.

Batch (2020-2025)

[Aishwarya, Akhilesh, Ankit Singh, Arushi Singh, Christy John, Gaurav Joshi, Hardika Saini, Himangee Sharma, Tareem Imam, Iqra Saifi, Ishaan Srivastava, Kritika Jindal, Megha Kaushik, Om Bhardwaj, Pranav Pandey, Saloni Karak, Skand Hemmady, Sarthak Jain, Surbhi Rahul, Taniya Najmi, Tanu Sharma, Tapas Kumar, Tushar Singh Bisht, Uday Prakash Mishra, Vedika Verma, A Jaya Vikash, Aditi, Ankit Bhati, Anupam Kumar, Anwar Khan, Ayush Gera, Ayush Tyagi, Ayushi Jangid, Chanchal Chauhan, Farheen Fatima, Karan Solanki, Lokesh Singh, Mahammad Rizwan, Priyanka Prajapati, Priyanshu Sharma, Ranjit Bhatnagar, Ritik Wahi, Sayani Hooi, Shammi Maurya, Shashank Bansal, Shivam Panchal, Surbhi Goel, Vishal Negi, Mohammad]

Finally, we are grateful to Delhi Technical Campus for providing us with the platform and resources to explore the evolving urban fabric of Agra.

About the Authors



Dr. Preeti Nair is presently working as HOD of School of Architecture, Delhi Technical Campus, Greater Noida. She has graduated from Giani Zail Singh College of Engineering and Technology, Bathinda under Punjab Technical University in 2008. She has done her Masters in M.Ekistics from Jamia Millia Islamic, New Delhi in 2012 and completed her PhD in 2023. She has an experience in the industry for more than 5 years with wide range of projects varying in institutional and residential projects. She has been associated with Amity University, Galgotias University since 2012. Her research interest is in architectural design, urban planning and Town Planning. She is an expert on the settlement morphology of urban and rural settlements. She has been speakers in many National and International conferences. She has also authored many papers which are in Scopus, Elsevier, Taylor and Francis etc.



Ar. Swati Punyal is presently working as Assistant Professor (on contract), School of Planning and Architecture, New Delhi. And have been a former Assistant Professor in School of Architecture, Delhi Technical Campus (2018 – 2024), Greater Noida. She has graduated from Sushant School of Art and Architecture, Haryana under GGSIPU in 2014. She has done her Masters in Urban Design from School of Planning and Architecture, Bhopal in 2018. She has an experience in the academics for more than 5 years. Her research interest is in Architectural Design, Urban Design and Environmental Planning. She is currently pursuing PhD focusing on Disaster Resilience planning in Hilly regions.



Hardika Saini is currently a student of architecture at Delhi Technical Campus, Greater NOIDA, with a keen interest in urban development and heritage conservation. As part of academic research, she has conducted studies on metro-induced urban growth, heritage integration, and sustainable development. She has worked on case studies analyzing the impact of infrastructure projects on historical cityscapes,

with a particular focus on Agra's metro corridor redevelopment. In addition to academic pursuits, Hardika has actively participated in co-curricular engagements through NASA (National Association of Students of Architecture), contributing to zonal and national conventions and competitions. Her involvement in design challenges, documentation events, and urban design workshops has further refined her analytical, collaborative, and creative skills, reinforcing her commitment to socially responsive and contextually grounded architectural practice.



Skand Hemmady is currently a student of architecture at Delhi Technical Campus, Greater NOIDA, with a focus on urban architecture and the study of urban growth through a modernistic approach. He examines the intersection of contemporary urban development and historical contexts, exploring strategies that balance modernization with cultural and architectural heritage. Including recent research on Agra's transformation, he contributes to discussions on sustainable and context-sensitive urban growth. In addition to academics, Skand was selected as the Unit Secretary (US) and Unit Designee (UD) for NASA (National Association of Students of Architecture) from the college. In these leadership roles, he actively participated in national-level NASA trophies and conventions, contributing to design competitions, urban intervention proposals, and collaborative student initiatives that broadened his understanding of architectural discourse and organizational leadership.

Table of Contents

Title of Chapters	Page No.
CHAPTER 1:	1 – 13
<i>Agra's Evolving Urban Landscape</i>	
CHAPTER 2:	14 – 26
<i>Heritage vs. Modernization – Navigating Agra's Dual Identity</i>	
CHAPTER 3:	27 – 63
<i>A New Era of Mobility: Connectivity and Accessibility in Agra</i>	
CHAPTER 4:	64 – 73
<i>Transit-Oriented Development: A Blueprint for Agra's Growth</i>	
CHAPTER 5:	74 – 94
<i>Mapping the Urban Relevance: A Study of Land Use, Structures, Infrastructure and Green Spaces</i>	
CHAPTER 6:	95 – 109
<i>Urban Transformation and the Displacement of Public Space</i>	
CHAPTER 7:	110 – 124
<i>Façade Fabric and its Vocabulary Along the Study Route</i>	
CHAPTER 8:	125 – 141
<i>Key Issues Affecting Urban Fabric of Agra</i>	

अग्रा'S HERITAGE IN TRANSIT:

A SPATIAL AND VISUAL ANALYSIS OF THE METRO
CORRIDOR'S IMPACT ON THE CITY'S HISTORICAL
IDENTITY.

PRELUDE

अग्रा'S Heritage in Transit explores the delicate balance between modernization and heritage preservation in one of India's most iconic cities. Agra, celebrated globally for the Taj Mahal, Agra Fort, and Fatehpur Sikri, now stands at a crucial crossroads. The introduction of the Agra Metro, envisioned as a transformative leap toward sustainable mobility, promises to ease congestion and enhance accessibility. Yet, it also raises pressing questions about the potential impact on the city's historic character and cultural fabric.

This book presents a comprehensive spatial and visual analysis of how the metro corridor intersects with Agra's centuries-old urban landscape. Through detailed research, mapping, and visual documentation, the authors highlight the dual identity of Agra—where a living heritage city must navigate the demands of rapid urbanization. Each chapter examines key dimensions such as transit-oriented development, displacement of public spaces, façade vocabulary along the metro routes, and legal frameworks surrounding heritage conservation.

Serving both as an academic resource and a thoughtful narrative, the book sheds light on the broader challenges faced by heritage cities worldwide in the age of infrastructural growth. It invites urban planners, architects, conservationists, policymakers, and citizens to reflect on the importance of inclusive planning and sustainable interventions that honor historical legacies while embracing progress.

In essence, **अग्रा'S Heritage in Transit** is more than a study of a metro project—it is a case study of urban transformation, offering insights into how cities can strive to protect their soul even as they modernize for the future.



India | UAE | Nigeria | Uzbekistan | Montenegro | Iraq | Egypt | Thailand | Uganda | Philippines | Indonesia

Empyrean Publishing House || www.empyreanpublishinghouse.com || info@empyreanpublishinghouse.com