

# Mahimapur Stepwell – A Journey Through History, Architecture, Conservation and Documentation

Chinmay Burange<sup>1</sup>, Sarang Holey<sup>2\*</sup>, Dhanashri Pande<sup>3</sup>

<sup>1,3</sup>Assistant Professor, Sipna School of Planning and Architecture, Amravati, India <sup>2</sup>Associate Professor, Sipna School of Planning and Architecture, Amravati, India

Abstract: Mahimapur, a picturesque village nestled in Maharashtra's Amravati district, embodies a harmonious blend of modernity and tradition. This comprehensive exploration delves into the village's rich historical tapestry, its architectural gem, the Mahimapur stepwell, and the ambitious restoration project surrounding it. The narrative unfolds by tracing Mahimapur's geographical context and climatic nuances, setting the stage for an in-depth journey into its historical significance. The village's historical legacy is deeply intertwined with the Yadav dynasty and the Bahamani Empire, whose architectural influences continue to shape the region. The socio-economic fabric of Mahimapur revolves around agriculture, with a unique focus on traditional water harvesting systems that have sustained the local population for centuries. The stepwells in the region not only serve practical purposes but also showcase intricate sculptures that fuse art with function. The Mahimapur stepwell itself is a marvel of architectural ingenuity, boasting a linear design with 85 wide steps, seven storeys, and captivating arches. The construction techniques employed, including squinch dome construction, stone masonry, brick masonry, and diverse arch techniques, testify to the builders' craftsmanship. This exploration also unveils the stepwell's rich architectural elements, such as sculptures from the Yadava period and torana patterns, which offer insights into the region's cultural and historical significance. The restoration project associated with the Mahimapur stepwell aims to explore its architectural style, recover and restore dilapidated portions, ensure year-round water accessibility, and improve groundwater levels in the region. This endeavor not only preserves history and culture but also promises sustainable development for the local community. Mahimapur's story, as told through its stepwell, serves as a compelling reminder of the importance of preserving cultural heritage and nurturing an appreciation for the treasures hidden in our villages and towns. The Mahimapur stepwell stands as an inspiring example of how the past can enrich the present and shape the future.

*Keywords*: Ancient stepwell, Barav, Heritage, Satmajli Barav, Stepwell, Baodi.

#### 1. Introduction

Mahimapur, a quaint village nestled in the Amravati district of Maharashtra, India, is a hidden gem that encapsulates the essence of modernity while cherishing its rich art, culture, and traditions. This village, although on the path of architectural modernization, has managed to preserve its heritage deep within its soul. This comprehensive exploration delves into the climate, geographical context, historical significance, socioeconomic and cultural aspects, architectural features, construction techniques, and the objectives of the restoration project revolving around the Mahimapur stepwell.



Fig. 1. Google Map for Mahimapur Village, Amravati



Fig. 2. Road Network at Mahimapur Village, Amravati

<sup>\*</sup>Corresponding author: arsarangholey@gmail.com



Fig. 3. Settlement Map for Mahimapur Village, Amravati

#### 2. Climate and Geographical Context

Mahimapur finds its geographical location within the Amravati district, situated in the Vidarbha region of Maharashtra, India. The district lies between 22'32' north and 78'27' east to 76'37' east, making it an integral part of the Vidarbha region. The climate in this region is characterized by its hot and arid nature, with average annual rainfall ranging from 700 mm to 1700 mm. The southwestern parts of the district, particularly Daryapur, receive the lowest amount of rainfall at 709 mm.



Fig. 4.

#### 3. History

Mahimapur and the surrounding region have a rich historical tapestry woven through various dynasties and empires. It is believed to have been ruled by the Yadav dynasty and the Bahamani Empire, both of which have left indelible marks on the region's heritage.

The Bahamani Empire, a confluence of five dynasties, played a significant role in shaping the architectural landscape of the area. Among these dynasties, the founder of the Imadshahi of Achalpur, Fateh Imad ul Mulk, made substantial contributions to the region's construction projects.

One remarkable feature of this region, spanning a 96 km stretch from Asegaon to Mahimapur, is the presence of 12 wells. Among these wells, the Mahimapur stepwell stands as a testament to the architectural and cultural richness of the area. The Yadavas, who have their roots deep in cultural heritage, were instrumental in constructing these magnificent ancient monuments.



Fig. 5. Ancient water supply network

# 4. Socio-Economic and Cultural Events

The socio-economic fabric of Mahimapur is predominantly woven around agriculture. The region boasts a plethora of architectural gems that hold historical and religious significance, including temples and traditional water structures.

One of the most intriguing aspects of this region is its traditional water harvesting systems. These systems have been in existence for centuries, harnessing the age-old wisdom and knowledge of the terrain. They have served as vital sources of water for the local population.

The stepwells in the region not only serve practical purposes but also act as canvases for art. Medieval architects adorned the walls, cornices, pillasters, pillars, and niches of these stepwells with intricate sculptures. This fusion of art and function has made these stepwells a prominent feature of the landscape. The conservation and restoration of these stepwells have the potential to elevate the cultural significance of the village and, more importantly, enhance the lives of the people residing in and around Mahimapur.

5. About the Structure





#### 6. Construction Techniques

The construction of the Mahimapur stepwell is a testament to the mastery of various construction techniques. These techniques not only ensured the structural integrity of the stepwell but also added to its architectural beauty.

## A. Squinch Dome Construction

The presence of a squinch dome highlights the architectural complexity of the stepwell.



Fig. 8.

# B. Stone Masonry

The use of stone masonry in the construction of the stepwell attests to the craftsmanship of the builders.



# C. Brick Masonry

Brick masonry played a crucial role in creating intricate patterns and structures within the stepwell.





## D. Arch Techniques

The stepwell features various arches, each with its unique design and purpose, showcasing the versatility of arch techniques.



Fig. 11.

## 7. Elements

The Mahimapur stepwell is adorned with an array of architectural elements that showcase the craftsmanship of its builders. The presence of carvings and sculptures reflects different architectural styles and artistic influences. These elements serve as a window into the past and provide valuable insights into the cultural and historical significance of the stepwell.

Sculptures from the Yadava period and torana patterns are enduring proof of the stepwell's resilience over the past 800 years. These sculptures often depict human figures in meditative positions, while each storey is distinguished by its distinct leading pattern.



## 8. Objective of Project

The restoration project associated with the Mahimapur stepwell encompasses several crucial objectives.

#### A. Architectural Exploration

The primary aim is to delve into the architectural style and intricate detailing of the stepwell. This exploration seeks to unravel the ancient construction techniques employed in its creation, offering valuable insights into the architectural heritage of the region.

## B. Restoration

Over the years, parts of the stepwell have fallen into

disrepair. The restoration project aims to recover and restore these dilapidated portions, ensuring the preservation of its historical and architectural significance for future generations.



Fig. 13.

# C. Water Accessibility

The stepwell has historically served as a vital source of water storage, irrigation, and support for farming activities. The restoration project is essential to ensure year-round access to water, benefiting the local community's agricultural endeavors.



#### D. Groundwater Improvement

The revival of the stepwell holds the promise of improving groundwater levels in the region. By preventing inundation and enhancing water resources, the stepwell can play a pivotal role in sustaining the community's water needs.

## 9. Current Condition and Conservation

Over time, many stepwells across India fell into disrepair due to neglect and changing water management practices. Conservation efforts have been initiated to restore these historical structures and preserve their cultural significance.

The Mahimapur Stepwell, too, may require ongoing conservation and restoration efforts to protect its architectural and historical heritage. These efforts often involve cleaning, structural repairs, and maintenance to ensure the stepwell's longevity.

## 10. Tourism and Cultural Importance

Stepwells like Mahimapur, with their unique architectural designs and historical importance, have the potential to attract tourists and history enthusiasts. They serve as living examples of India's ancient engineering and artistic achievements.

Visitors to the Mahimapur Stepwell can not only admire its architectural beauty but also gain insights into the region's history, culture, and the significance of water management in arid regions of India.

In conclusion, the Mahimapur Stepwell is a valuable piece of India's architectural and historical heritage. It stands as a symbol of the region's ability to harness and manage water resources creatively. Efforts to conserve and protect such structures are essential to ensure that future generations can appreciate and learn from these remarkable feats of engineering and artistry.

Documenting the Mahimapur Stepwell is crucial for various reasons, as it serves multiple purposes related to heritage preservation, historical research, tourism promotion, and community development. Here are some key reasons why documenting the Mahimapur Stepwell is essential:

#### A. Preservation of Cultural Heritage

The Mahimapur Stepwell is a historical and architectural treasure that reflects the cultural and artistic heritage of the region. Documenting it ensures that its design, sculptures, and architectural details are preserved for future generations to appreciate and study.

#### B. Historical Research

Documenting the stepwell can contribute to historical research, allowing historians, archaeologists, and scholars to study its construction techniques, architectural evolution, and the historical context in which it was built. This research can shed light on the history of the region and its cultural significance.

## C. Tourism Promotion

Well-documented historical sites often become tourist attractions, drawing visitors interested in history, art, and architecture. Promoting the Mahimapur Stepwell as a tourist destination can bring economic benefits to the region and create opportunities for local businesses.

## D. Educational Resource

Documentation can serve as an educational resource for schools, colleges, and universities. Students can learn about local history, architecture, and culture by studying the stepwell's documentation.





## E. Conservation and Restoration

Documenting the current state of the stepwell is essential for planning and executing conservation and restoration efforts. It provides a baseline for assessing damage, setting restoration goals, and monitoring progress over time.

#### F. Community Engagement

Involving the local community in the documentation process can create a sense of ownership and pride in the stepwell. It can also engage community members in preservation efforts and foster a stronger connection to their cultural heritage.

#### G. Digital Preservation

Digital documentation, including photographs, architectural drawings, and 3D models, can ensure that a comprehensive record of the stepwell is available even if the physical structure deteriorates over time.



Fig. 16. 3D visualization

## H. Crisis Management

In the unfortunate event of damage due to natural disasters, vandalism, or neglect, having detailed documentation can aid in assessing the extent of the damage and planning for restoration.

#### I. Promoting Sustainable Water Management

As a historical water management structure, the Mahimapur Stepwell's documentation can serve as a reference for understanding traditional water harvesting techniques. In regions facing water scarcity, this knowledge can be invaluable for promoting sustainable water management practices.

# J. Legal and Administrative Purposes

Documentation can be used for legal and administrative purposes, such as obtaining heritage protection status, applying for grants and funding for preservation projects, and complying with heritage conservation regulations.

In summary, documenting the Mahimapur Stepwell is essential for its preservation, historical research, cultural promotion, and community development. It helps ensure that this remarkable piece of cultural heritage is not lost to time and that its significance is recognized and appreciated by present and future generations.





Fig. 17. Photographs of 3D model

#### 11. Conclusion

Mahimapur, with its Mahimapur stepwell, stands as a testament to the harmonious coexistence of modernity and tradition. This stepwell not only serves as a practical water source but also embodies the region's rich cultural and architectural heritage.

The restoration project surrounding the Mahimapur stepwell is a noble endeavor aimed at preserving history, culture, and tradition. It seeks to unravel the architectural mysteries of the past, breathe new life into a historical treasure, and ensure the sustainable development of the community.

As we embark on this journey through Mahimapur's history, architecture, and conservation, we are reminded of the importance of preserving our heritage and fostering a deep appreciation for the cultural treasures that lie hidden in the heart of our villages and towns. The Mahimapur stepwell is a shining example of how the past can continue to enrich our present and inspire our future.

#### References

- Morna Livingston, "Steps to Water the Ancient Stepwells of India, 2nd ed., vol. 3, Ed. New York: Princeton Architectural Press, 1941, Ch. 8, pp. 171-192.
- [2] A. Singh and S. A. Mishra, "Study of Ancient Stepwells in India," in International Journal of Research in Engineering, Science and Management, vol. 2, no. 10, pp. 632-634, Oct. 2019.
- [3] Thirumalini Selvaraj, Prathiba Devadas, Jayashree Lakshmi Perumal, Anastasia Zabaniotou and Mahesh Ganesapillai, "A Comprehensive Review of the Potential of Stepwells as Sustainable Water Management Structures," Water 2022, 14, 2665.
- [4] Meenakshi Piplani and Tarun Kumar, "Stepwells: Reviving India's Cultural and Traditional Water Storage Systems," Conference: World Resources Forum at: Geneva, Switzerland, March 2019.