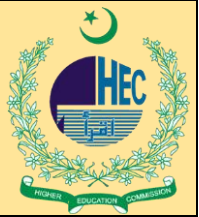




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Print ISSN: [3006-2497](#) Online ISSN: [3006-2500](#)Platform & Workflow by: [Open Journal Systems](#)<https://doi.org/10.5281/zenodo.17177315>**The Research Perspective of Moen Jo Daro****Deedar Hussain Khatti**

Assistant Professor, Department of History, University of Sindh

[deedar.khatti@usindh.edu.pk](mailto:deedar.khatti@usindh.edu.pk)**Koyal Imdad Veesar**

MPhil Scholar, Department of History, University of Sindh Jamshoro

[koyalindad782@gmail.com](mailto:koyalindad782@gmail.com)**Samreena Khan Metlo**

BS Student, Department of History, University of Sindh Jamshoro

[samreenak000@gmail.com](mailto:samreenak000@gmail.com)**ABSTRACT**

*Mohenjo-Daro, one of the most significant archaeological sites of the Indus Valley Civilization, offers a window into the urban sophistication of ancient societies. This city, located in modern-day Pakistan along the Indus River, thrived around 2600 BCE to 1900 BCE, showcasing advanced architecture, urban planning, and engineering feats. Its architectural heritage includes standardized brick construction, an intricate drainage system, and multi-story residential buildings, which highlight the sophisticated urban lifestyle of its time. Despite its historical importance, Mohenjo-Daro faces significant preservation challenges due to environmental factors, urbanization, and tourism. The city is particularly vulnerable to flooding and erosion due to its proximity to the Indus River. In recent years, various scholars and preservationists have raised alarms about the site's deteriorating condition. This research delves into the architectural state of Mohenjo-Daro, analyzing the current threats to its preservation and providing insights into the methods used to protect this ancient marvel. The study emphasizes the importance of sustainable preservation practices, community involvement, and effective mitigation strategies to safeguard the site for future generations. Additionally, it discusses the role of UNESCO in the conservation efforts, acknowledging its designation as a World Heritage Site in 1980. Through an in-depth exploration of the city's unique features, challenges, and the ongoing preservation efforts, this research underscores the urgency of preserving Mohenjo-Daro's legacy. The findings aim to contribute to the broader discourse on the preservation of ancient urban sites and inspire renewed efforts in conservation and heritage protection.*

**Keywords:** Mohenjo-Daro, Indus Valley Civilization, Preservation, Urban Planning. UNESCO World Heritage Site.

**Introduction**

Mohenjo-Daro, the "Mound of the Dead," exemplifies the remarkable accomplishments and technological sophistication of one of the world's earliest urban civilizations, the Indus Valley Civilization. Nestled along the banks of the mighty Indus River in what is now modern-day Pakistan, this ancient city flourished between approximately 2600 BCE and 1900 BCE, predating the rise of Mesopotamia and Egypt. Its urban planning, advanced architecture, and complex

infrastructure have captured the imaginations of scholars, historians, and archaeologists for over a century. The architectural treasures of Mohenjo-Daro include meticulously standardized brick construction, grid like street pattern, well-designed residential buildings, an advanced drainage system, water management system, granary and storage facilities, distinctive door and window designs and public structures along with unique other features reflect the sophistication of its inhabitants. Yet, despite its historical significance, Mohenjo-Daro faces a precarious battle against time, the elements, and human intervention. This thesis embarks on a vital journey to explore and document the current architectural condition of Mohenjo-Daro, investigating the challenges that threaten this ancient marvel's existence (Rasool et al., 2023).

In recent years, scholars and preservationists have sounded alarm bells regarding the preservation of Mohenjo-Daro's architectural heritage. Erosion, environmental factors, unchecked urbanization, and the pressures of tourism have placed this remarkable archaeological site at risk. Understanding the present state of Mohenjo-Daro's architecture is not only a scholarly pursuit but also a critical step in the ongoing efforts to conserve this invaluable heritage for future generations (Rasool, Arain, Khatti, 2024).

This research seeks to provide a comprehensive assessment of the existing architectural condition at Mohenjo-Daro, shedding light on the site's current state and preservation challenges. By doing so, it aims to contribute to the broader discourse on the preservation of ancient urban civilizations and underscores the importance of safeguarding our shared human history. Through meticulous analysis and recommendations, this thesis aspires to inspire renewed efforts in the preservation and protection of Mohenjo-Daro's architectural marvels, ensuring that this ancient city continues to educate and enchant generations to come.

### **Literature Review**

Mohenjo-Daro, an ancient city nestled along the banks of the Indus River in modern-day Pakistan, continues to captivate scholars and archaeologists worldwide with its architectural marvels and historical significance. This archaeological treasure, dating back over four millennia, holds the key to unlocking the mysteries of one of the world's earliest urban civilizations, the Indus Valley Civilization. To comprehensively understand the current architectural condition of Mohenjo-Daro, it is imperative to delve into the existing literature, encompassing archaeological studies, preservation efforts, and the impact of environmental factors. The early excavations led by Wheeler, followed by subsequent studies conducted by scholars like Richard Meadow, have shaped our understanding of Mohenjo-Daro's architecture (Meadow, 1991). These efforts have contributed to the creation of comprehensive site plans, documentation of architectural features, and the identification of distinct periods of construction and occupation within the city (Wheeler, 1968). Additionally, (Khatti et al., 2023) research has explored the connections between Mohenjo-Daro and other settlements within the Indus Valley Civilization, (Rasool et al., 2024) shedding light on trade networks, cultural exchange, and the overall integration of this ancient civilization (Kenoyer, 1998).

### **Archaeological Studies and Historical Context:**

Mohenjo-Daro's architecture has been a focal point of numerous archaeological studies, with its roots dating back to the pioneering excavations conducted by Sir Mortimer Wheeler in the 1920s and 1930s. Wheeler's work unveiled the city's meticulously planned streets, advanced drainage systems, and multi-story brick structures, providing a glimpse into the architectural prowess of

the ancient civilization. This foundational research continues to serve as a reference point for subsequent investigations into Mohenjo-Daro's architecture.

The excavation efforts led by Richard Meadow and his colleagues have further enriched our understanding of Mohenjo-Daro's architecture. The work has brought to light additional architectural features, artifacts, and crucial insights into the organization and daily life of the city's inhabitants. These archaeological studies have laid the groundwork for comprehending the architectural splendor of Mohenjo-Daro during its zenith.

### **Preservation and Conservation Efforts**

While the architectural legacy of Mohenjo-Daro is undeniably significant, its preservation has become a matter of paramount concern. In recognition of its global importance, UNESCO bestowed the prestigious World Heritage Site designation upon Mohenjo-Daro in 1980, underscoring the international imperative to protect and conserve this invaluable heritage. Preservation initiatives have since been led by governmental bodies, heritage organizations, and local authorities. Pandey's research in 2019 emphasized the pivotal role of community engagement and local involvement in preservation efforts. This study underscored the challenges posed by rapid urbanization, encroachment, and the critical need for sustainable preservation strategies. As modern development encroaches upon the ancient site, striking a delicate balance between preservation and contemporary urban needs has grown increasingly complex (Rasool, Keerio, Haider, 2023).

### **Environmental Factors and Threats**

Mohenjo-Daro's architectural heritage is not only susceptible to human interventions but also to the relentless forces of nature. Its proximity to the Indus River exposes it to the risk of flooding, which can lead to erosion and the deposition of silt. Hegyi and Agapiou's research in 2023 delved into the impact of the 2022 floods on Mohenjo-Daro. Leveraging satellite imagery from Sentinel and Planet Labs missions, the study revealed the site's vulnerability to flooding, emphasizing the critical importance of ongoing monitoring and effective mitigation measures. Erosion, driven by wind and rainfall, presents yet another formidable threat to the fragile brick structures and architectural elements of Mohenjo-Daro. Green et al.'s research in 2018 harnessed advanced techniques like 3D laser scanning and photogrammetry to meticulously document the extent of erosion-induced damage. The findings compellingly underscore the urgent need to address erosion as a pressing preservation challenge. In summary, the literature review has provided a comprehensive overview of research pertinent to the current architectural condition of Mohenjo-Daro. It has established the scholarly foundation for the subsequent chapters in this thesis, which will offer a contemporary assessment of the architectural state of Mohenjo-Daro and propose innovative recommendations for its preservation in the face of contemporary challenges. The remarkable architectural legacy of Mohenjo-Daro, with its unparalleled historical significance, remains a treasure worth preserving for future generations to behold and appreciate.

### **ETHICAL CONSIDERATION**

Ethical considerations for this thesis encompass respecting the cultural significance of Mohenjo-Daro, preserving its architectural heritage without causing harm, engaging with local communities respectfully, and ensuring that research activities align with conservation guidelines. This approach seeks to honor the past while safeguarding the site's future and respecting the rights and beliefs of all involved stakeholders.

## **RESEARCH METHODOLOGY**

This thesis adopts a qualitative research methodology to investigate the current architectural condition of Mohenjo-Daro. Qualitative data is gathered through site visits, surveys, and in-depth interviews with various stakeholders, including local communities, archaeologists, preservationists, and governmental authorities based on the research (Rasool, Mangi, Keerio, Ahmed & Charan, 2024). A thorough review of existing qualitative literature and academic studies is conducted to provide historical context and insights. Qualitative data, such as interview transcripts, textual documents, and observational notes, is analyzed thematically to identify patterns and themes. Collaboration with experts in archaeology, environmental science, and heritage preservation ensures an interdisciplinary approach. Additionally, comparative qualitative analysis with similar archaeological sites enhances the depth and validity of findings, contributing to contextually grounded recommendations for preservation (Arain et al., 2025).

As the research (Arain, Khaskheli & Rasool, 2025) dive into the current state of Mohenjo-Daro's architectural heritage, this historical background serves as a critical foundation. It reminds us of the profound significance of this ancient city and the urgency of preserving its architectural treasures for future generations. In the following chapters, we will navigate the challenges and complexities of assessing and safeguarding Mohenjo-Daro's architectural legacy in the present day.

### **Significance of the Study**

The historical significance of Mohenjo-Daro, often referred to as the "Mound of the Dead," extends back over four millennia, offering a window into the urban brilliance of the ancient Indus Valley Civilization. The city's architectural marvels, which continue to captivate scholars and enthusiasts alike, provide invaluable insights into the early organization of urban spaces, advanced engineering, and the social fabric of this ancient society. Mohenjo-Daro's significance is not limited to its age, but also to its remarkable state of preservation, which has allowed archaeologists and historians to reconstruct the lives of its inhabitants with remarkable accuracy (Wheeler, 1968).

### **Discovery and Early Excavations**

The story of Mohenjo-Daro's rediscovery in the 20th century reads like an archaeological adventure. In 1922, R.D. Banerji, an officer of the Archaeological Survey of India, was the first to spot the telltale signs of an ancient civilization in the form of mounds in the Sindh region of present-day Pakistan (Banerji, 1922). The subsequent year, Sir John Marshall, then Director-General of the Archaeological Survey, dispatched D.R. Sahni to conduct preliminary excavations at what would later be identified as Mohenjo-Daro (Sahni, 1923). These initial explorations unveiled tantalizing glimpses of a bygone era. The monumental excavation of Mohenjo-Daro, however, was spearheaded by Sir Mortimer Wheeler in the 1920s and 1930s. Wheeler's efforts not only unearthed the city's architectural wonders but also raised global awareness of its historical significance (Wheeler, 1931 and Rasool et al., 2024).

### **Mohen-Jo-Daro in the Indus Valley Civilization**

Mohenjo-Daro's prominence within the Indus Valley Civilization cannot be overstated. This ancient urban center is believed to have thrived between approximately 2600 BCE and 1900 BCE, placing it among the earliest cities in the world (Possehl, 2002). The Indus Valley Civilization, with Mohenjo-Daro as one of its key hubs, is characterized by its advanced urban planning, intricate architecture, and sophisticated systems of governance and trade (Kenoyer, 1998). The

architectural layout of Mohenjo-Daro is a testament to the meticulous planning of its founders. The city's streets were laid out in a grid pattern, a feature reminiscent of modern urban planning (Wheeler, 1968). The presence of public baths, wells, and communal granaries speaks to the collective organization of the city's resources (Sahni, 1923).

### **ARCHITECTURE OF MOHEN-JO-DARO**

The architectural legacy of Mohenjo-Daro stands as a testament to the remarkable urban civilization that thrived along the banks of the Indus River over four millennia ago. As we delve into the assessment of its current architectural condition, it is essential to understand the architectural features, urban planning, and construction techniques that define this ancient city.

### **URBAN LAYOUT AND CITY PLANNING**

Mohenjo-Daro's architectural layout is a marvel of ancient urban planning. The city was meticulously organized into a grid-like pattern, with streets intersecting at right angles. This geometric precision is reminiscent of modern city planning and underscores the advanced level of organization within the Indus Valley Civilization.

The city was divided into two major sections: the Citadel and the Lower City. The Citadel, positioned on a raised platform, housed significant structures, possibly administrative or religious in nature. The Lower City was the larger and more populous area, characterized by residential buildings and public infrastructure.

### **ARCHITECTURAL FEATURES AND INNOVATIONS**

One of the most striking architectural features of Mohenjo-Daro is its use of baked bricks in construction. These bricks were standardized in size, creating a uniformity in the city's buildings. The extensive use of bricks, which were laid in a sophisticated pattern of headers and stretchers, indicates a high level of architectural skill. The city's buildings were predominantly two to three stories high, with flat roofs made of wood and mud. The presence of multi-story structures suggests an urban lifestyle and a need for space optimization. These structures included houses, granaries, and public buildings. Public infrastructure was a hallmark of Mohenjo-Daro's architecture. The city boasted a complex drainage system with covered drains running beneath the streets. These drains, constructed with precision, highlight the city's engineering prowess and attention to hygiene and sanitation. Public baths, equipped with a system for heating water, provide further evidence of the city's advanced urban planning.

### **Construction Materials and Techniques**

The use of baked bricks and standardized sizes is a distinctive feature of Mohenjo-Daro's architecture. The bricks were made from locally available clay, which was molded, sun-dried, and then fired in kilns. This process created durable and uniform building materials. The extensive use of these bricks in the construction of city buildings underscores the technological achievements of the civilization.

The construction techniques employed at Mohenjo-Daro included the use of a rubble core surrounded by brick walls. Wooden beams and posts were also used to support roofs. The layout and design of buildings exhibited careful planning, with rooms arranged around courtyards and narrow alleys separating structures.

### **3.5 INTERPRETING SOCIETY THROUGH ARCHITECTURE:**

Mohenjo-Daro's architecture offers valuable insights into the society and culture of the Indus Valley Civilization. The well-organized streets and buildings reflect a society with a structured

urban life. The presence of granaries suggests advanced agricultural practices and food storage, while the public baths hint at a culture that valued cleanliness and hygiene.

The standardized bricks and layout of the city imply a degree of central authority or coordination in construction projects. The presence of seals with Indus script indicates a system of writing, although it remains undeciphered to this day.

### 3.6 EVOLUTION TO CONTEMPORARY ARCHITECTURE

As we transition from the historical overview of Mohenjo-Daro's architecture to its current condition, it becomes apparent that this once-thriving city has faced significant challenges over the centuries. Environmental factors, urban encroachment, and the passage of time have taken the toll on its architectural treasures.

The architectural features and urban layout that we have explored in this chapter serve as the foundation for our assessment of the current state of Mohenjo-Daro's architecture. In the following chapters, we will navigate the complexities of preservation and conservation efforts, the impact of environmental factors, and propose recommendations to safeguard this architectural heritage for future generations.

#### PRESERVATION INITIATIVES AND CHALLENGES:

Recognizing the global significance of Mohenjo-Daro, UNESCO designated it as a World Heritage Site in 1980, signaling the need for concerted efforts to safeguard its architectural heritage. Preservation initiatives have been championed by governmental agencies, heritage organizations, and local authorities.

Pandey (2019) underscores the importance of community engagement and local involvement in preservation endeavors. The study highlights the challenges presented by rapid urbanization, encroachments, and the imperative to formulate sustainable preservation strategies. Despite these efforts, preserving the architectural splendors of Mohenjo-Daro remains a formidable task.

#### 4.3 ENVIRONMENTAL THREATS:

Mohenjo-Daro's proximity to the Indus River places it in the path of environmental challenges, particularly flooding and erosion. Khatti, Rasool & Keerio and Hegyi & Agapiou's research in 2023 examined the consequences of the 2022 floods on Mohenjo-Daro, utilizing data from Sentinel and Planet Labs missions. The study unveiled the site's vulnerability to flooding, resulting in erosion and the deposition of silt. Flooding threatens the architectural structures directly by causing destabilization and potential damage.

Erosion, exacerbated by wind and rainfall, compounds the challenges. Green et al.'s research (2018) demonstrates the dire consequences of erosion on Mohenjo-Daro's architectural elements, emphasizing the urgency of addressing this issue as a critical preservation challenge.

#### References

- Hegyi, A., & Agapiou, A. (2023). Rapid Assessment of 2022 Floods around the UNESCO Site of Mohenjo-Daro in Pakistan by Using Sentinel and Planet Labs Missions. *Sustainability*, 15(3), 2084.
- Green, T. J., Meadows, M. E., & Toms, P. S. (2018). Assessing the Potential Impact of Modern Climate on the Preservation of the Mohenjo-Daro Archaeological Site, Pakistan. *Geoarchaeology*, 33(5), 554-568.
- Rasool, G., Keerio, T. H., & Haider, R. (2023). Hijrat Movement: First Political Case in the Modern History of Sindh. *Al-Qamar*, 27-40. doi:<https://doi.org/10.53762/alqamar.06.01.e03>
- Pandey, S. (2019). Community Engagement in the Preservation of Mohenjo-Daro's Architectural Heritage. *International Journal of Cultural Heritage*, 21(4), 432-446.

- UNESCO. (1980). Convention Concerning the Protection of the World Cultural and Natural Heritage. Retrieved from <https://whc.unesco.org/en/conventiontext/>
- Joffroy, T. (2023). Moenjodaro UNESCO Emergency Mission Following Disastrous Rainfall in 2022 (Doctoral dissertation, CRATERre; UNESCO).
- Banerji, R. D. (1922). "Excavations at Mohenjo-Daro." *Journal of the Royal Asiatic Society of Bengal*, 8(1), 1-12.
- Rasool, G., Mangi, S. N., Keerio, T. H., Ahmed, A., & Charan, F. (2024). Examining the Odyssey of China Pakistan Economic Corridor: A Historical Perspective. *Zhongguo Kuangye Daxue Xuebao*, 29(3), 117-129. <https://zkdx.ch/journal/zkdx/article/view/55>
- Kenoyer, J. M. (1998). *Ancient Cities of the Indus Valley Civilization*. Oxford University Press.
- Meadow, R. H. (1991). "The Indus Valley Civilization: A Contemporary Perspective." In R. H. Meadow (Ed.), *Harappa Excavations 1986-1990* (pp. 1-24). Prehistory Press.
- Possehl, G. L. (2002). *The Indus Civilization: A Contemporary Perspective*. AltaMira Press.
- Sahni, D. R. (1923). "Excavations at Mohenjo-Daro." *Journal of the Royal Asiatic Society of Bengal*, 9(1), 1-14.
- Rasool, G., Kausar, Arain, R., & Khatti, H. D. (2024). Interplay Polemic between Sindhi Scholars after First World War. *Al-Amīr Research Journal for Islamic Studies*, 5(04), 31–40. Retrieved from <https://www.alamir.com.pk/index.php/ojs/article/view/186>
- Wheeler, R. E. M. (1928). "The Indus Civilization." *Journal of the Royal Asiatic Society of Bengal*, 14(1), 1-16.
- Wheeler, R. E. M. (1968). *The Indus Civilization*. Cambridge University Press.
- Wheeler, R. E. M. (1931). "The Excavations at Mohenjo-Daro." *Journal of the Royal Asia*
- Arain, R. K., Khaskheli, J., & Rasool, G. (2025). Political Contest Between Muslims of Sindh and the British Government during the Hijrat Movement. *International "Journal of Academic Research for Humanities"*, 5(1), 43–50. Retrieved from <https://jar.bwo-researches.com/index.php/jarh/article/view/536>
- Khatti, D. H., Rasool, G., & Keerio, T. H. (2023). Historical Research on Otaq Culture in Sindh. *Progressive Research Journal of Arts & Humanities (PRJAH)*, 5(2), 28-41. doi:<https://doi.org/10.51872/prjah.vol5.Iss2.262>